FANTASY BEHAVIORS OF CLINIC-REFERRED CHILDREN IN PLAY ENCOUNTERS WITH COLLEGE UNDERGRADUATES

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ABSTRACT

FANTASY BEHAVIORS OF CLINIC-REFERRED CHILDREN
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By

Marc Gershowitz

The purpose of this study was to gather information about the relationship between the behavior of young adults (college undergraduates) and the fantasy behavior of the clinic-referred children they encountered during 15 play sessions. A review of the child fantasy behavior literature stressed the importance of the adult's "being with" the child in his fantasy play in order to positively affect him. Past research by Stollak and others has also examined the effects of the potential and training of young adults on their ability to communicate acceptance, allow self direction and be involved with the children they encounter. It was found that training did increase the adult's ability to communicate acceptance to the child. Consequently, it was hypothesized that adults who functioned better on the above three dimensions would facilitate the child's fantasy activities.

The behavior of adults in the present study was measured along the dimensions of: 1) communication of acceptance, 2) allowing self direction, 3) involvement, 4) potential (high or low) and 5) training. The behavior (or its absence) of 38 clinic-referred children was measured along 20 dimensions. There were 10 direct measures of different fantasy activities. An affect scale, eight mood scales and a concentration scale

were designed to observe how deeply the child was involved in his fantasy and other behaviors.

The results indicated that adult involvement seemed to have the most central role in the initial stages of the adult-child interaction. High potential adults who were trained, and were more involved with children,more successfully encouraged them to think divergently, to express more replicative than wish fulfilling fantasies, and to express more human references in their fantasies, thus helping the child to engage in more mature, developmentally-advanced cognitive behaviors. Finally there were several affect and mood scales that were influenced by the interaction of potential and training under the condition of involvement. Adults with high potential and training elicited the most affect and mood states.

On the allowing self direction scale, only the three way interaction was significant. Further analysis revealed that high potential, trained adults elicited more divergent thinking on the part of the child. Therefore it is not only the involvement but involvement coupled with allowing self direction that is important in affecting fantasy activities.

Some unexpected results were also obtained. Trained, involved adults elicited more ashamed moods than non-trained, uninvolved adults. One would have expected them to have elicited more positive moods but not more negative. It seems that what happened was that they elicited more moods in general, regardless of what sort of mood. It was also surprising that the untrained, low potential adults helped the child concentrate better than the trained, low potential adults. The results suggest that their involvement was in reality-oriented tasks but not in fantasy activities.

Implications of the above findings for child psychotherapy, and parent- and teacher-child relations were discussed.

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By

Marc Gershowitz

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To

Maressa

and

Ralph

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INTRODUCTION

The purpose of this study was to gather information about the relationship between the behavior of young adults (college undergraduates) and the fantasy behavior of the clinic-referred children they encountered during 15 play sessions.

The adult behaviors studied included variations in 1) communication of acceptance, 2) allowing the child self-direction, and 3) involvement (Guerney & Stover, 1971). Communication of acceptance is the verbal expression of acceptance-rejection of the child by the adult. Allowing the child self-direction is a measure of the behavioral willingness of the adult to follow the child's lead and to allow self-direction in behavior rather than to attempt to control it. Involvement is a measure of the adult's attention to and participation in the child's activities. These three measurements were coded separately on five-point scales.

The young adults were undergraduates who were videotaped playing with four to seven year old clinic-referred children during 15 play sessions. Guerney & Stover (1971) found evidence to support the views that a) empathy is positively related to the maintenance of good relationships with certain significant others, and that b) it is a characteristic which, at least in a controlled setting, can be influenced by education and training. All mothers were able to learn their roles to a highly satisfactory degree.

The increase in empathy as coded by the above scales was found to be significant at the $p < .001$ level with an N of 48.

Stollak, Green, Scholom, Schreiber & Messe' (in press) also found that undergraduates could be trained to increase their expression of such empathic behavior with clinic-referred children. They found that undergraduates who participated in a year long program expressed more "empathy" as compared to untrained undergraduates, especially in their communication of acceptance.

The present study explored whether the undergraduates who expressed varying degrees of empathy as measured in Stollak et al.'s study would have an effect on the fantasy behavior of the child they interacted with.

Significance of Fantasy Behavior

The significance of the study of fantasy behavior was indicated by Lowenfeld (1967). Fantasy is the stuff "dreams are made of," the material out of which, in early childhood, many of the conceptions of the outside world are formed. It is probably an important motivator for most personal and social behavior. Piaget (1962) supported the developmental importance of fantasy behavior when he said that before the age of six or seven a child's notion of the world rests not on perception of fact but wholly on fantasy material. Gould (1972) described the importance of fantasy behavior to ego and superego development. "Fantasy expressions are the representations or derivatives, i.e., the preconscious or unconscious transformation of impulses, desires and affects, which in various ways draw on available cognitive capacities for the manifest fantasy product. In a qualitative sense, fantasy productions occupy a position in the continuum of thought processes between mathematical scientific reasoning and primary process representationed thought"

(p. 25). Sandler and Nagera (1963) considered "the process of fantasizing (as) an ego-functioning resulting in organized wish fulfilling imaginative content...The fantasy may then be a derivative, a compromise constructed by the ego between that wish and the demands of the superego. Reality knowledge may be partially or completely suspended in the formation of this derivative or it may be utilized and influence the fantasy to a high degree...The possibility exists that some fantasies represent wish fulfillments when the wish in question arises neither from the id nor from the superego but from the ego itself" (pps. 190, 191).

Other Definitions

Klinger (1971) presented an operational definition of fantasy behavior that is useful. Fantasies are "a verbal report of all mentation whose ideational products are not evaluated by the subject in terms of their usefulness in advancing some immediate goal extrinsic to the mentation itself; that is, fantasy is defined as report of mentation other than orienting responses to, or scanning of, external stimuli, or operant activity such as problem solving in a task situation" (p. 20).

Any complete definition or explication must also include Singer's (1966) important statement of the "shifts of attention away from the ongoing mental task or from a perceptual response to external stimulation towards a response to some internal stimulus" (p. 3), and Antrobus' (1969) similar notion of "stimulus-independent thought."

Fantasy Behavior in Psychotherapy

An interest in fantasy behavior in children emerged as a result of an attempt to understand the behavior role of adults in psychotherapy with children. Both analytic and client centered models of therapy stress the

importance of the therapist's sensitivity to the child. In order to summarize the importance of studying adult behavior as it relates to fantasy behavior in children, a brief outline of the analytic and client centered approaches to fantasy behavior in therapy will be presented.

There are two main uses for fantasy behavior in psychotherapy. One use regards assessment and the therapist's attempts to understand the child's conflicts, needs and impulses. The other is in regard to the child's using his capacity for fantasy behavior to explore and try out more effective ways of coping with his environment that would lead to greater mastery than he has achieved in the past.

"It is a curious irony of scientific progress that imagery and fantasy as fundamental human processes have only in the past decade been rediscovered for use in psychotherapy largely through the influence not of psychoanalysts but of their quondam arch-enemies, the behavior therapists" (Singer, 1971). The use of directed imagery in psychotherapy, however, goes back more than thirty years to Disoille's (1938) "directed daydream" technique and Jung's (1960) "active imagination" method.

Use of Fantasy in Analytic Therapy

"Classical analysis and some of its variants place a premium on the patient's capacity to generate imagery and then to translate the imagery into verbal terms" (Singer, 1970).

Gondor (1964) explained that work with children demands the unique ability to rely on communications which are in part more subtle and in part more direct than those of adults. During the latency period (between ages six and twelve) the child makes decisive steps away from the family into the world. He has to learn to conform, to work, to accept limitations,

to develop skills and working habits and to get integrated into the group. The average child of this age has usually grasped and accepted the fact that there are rules set by the world of adults which prevent him from participating in certain specific activities. He has also become increasingly aware of the fact that his parents are not omnipotent and cannot avert many of life's dangers. These changes produce deep-seated anxieties. They have a dark, nightmarish quality. They are images which the child finds difficult to express, to explain or to talk about. When he tries, he frequently does not elicit an appropriate response from adults and his attempts at communication are often met at best with smiles or at worst with open ridicule or rejection. Thus the child learns he may be better off keeping them to himself. The child also hesitates to talk with adults about fantasies of himself as the hero, the all-powerful superman who triumphs over anxiety, weakness and insecurity. He sometimes does express these fantasies in his play.

In order to most effectively help children in emotional conflict, it is of paramount importance that the therapist be able to evaluate, understand and utilize the fantasy communications of the child. The quality and structure of the fantasy material help to diagnose the depth of the disturbance and to indicate the specific emotional phase he is undergoing in the therapy process. It can give information about increasing or decreasing ego strength. The weaker the ego the vaguer the boundaries between the world of fantasy and reality, and the more there is obsessive perseveration of specific bizarre fantasies.

The child's fantasies can be used as dream material is used in adults. The therapist becomes acquainted with the patient's private symbolism expressed in his fantasies, discusses them and accepts them as a

legitimate means of communication. The therapist must be an adult who understands, accepts, and, if he wishes, can converse in the language of this world. It is this ability that makes the relationship therapeutic. For the child, fantasy is a legitimate means of communication which the therapist has to learn to understand and use.

Singer (1973) pointed out "that many of the disturbances of children often attributed to bad effects of fantasy are rather the consequences of difficulties in relationship, attention or identification. For some children these problems are dealt with through elaborate make-believe or fantasy techniques, for others they are expressed directly in physical or gross symptoms such as phobias, and for others they are expressed directly in actions which may be disruptive, antisocial or grossly self-defeating" (p.254). For him the presence of fantasy symptoms was a positive prognostic indicator. In Eckstein's (1966) words "...the psychotherapeutic process consists of the exchange of one childhood myth for another" (p. 335). As a consequence of therapeutic interaction, the young person is now prepared to reconstruct his view of the past into one which offers "a healthier rationale for living...Even psychotic-like attempts of reconstruction are functional fantasies which justify present behavior and adjustment"(p. 335). This is another way of stating that through understanding a child's fantasy behavior the therapist can understand how the child tries to deal with reality. As Singer puts it, "The child who is highly imaginative may be more accessible to therapy than a child who has few means of expressing himself except in compulsive acts or unverbalized fears" (p. 252).

Fineman (1962) suggested that the imaginative predisposition of the child may play a key role in whether or not therapy is successful. She

also pointed out the importance of the child's mother's tolerating and encouraging make-believe play. "It is not clear whether actual participation of the mother in (imaginary) play is necessary, but this is not as vital to its development as are the acceptance and approval on the part of the mother" (p. 180).

All of the above theoreticians have also dealt with the question of how the therapist can actively modify (through such techniques as interpretation) a child's fantasy experience. The client centered tradition, however, deals with providing the right environment or atmosphere so that the child's self will emerge unfettered by the distortions of his habitual perceptions of his environment.

Use of Fantasy in Client Centered Therapy

Client centered therapists do not deal directly with the child's fantasy life. They are interested in creating an environment for the child's growth. Axline (1947) described the theory of personality structure on which non-directive play therapy is based. "There seems to be a powerful force within each individual which strives continuously for complete self-realization...It goes on relentlessly to achieve consummation but it needs good 'growing ground' to develop a well-balanced structure ...Growth is a spiraling process of change relative and dynamic. Experiences change the individual's perspective and focus. Everything is constantly evolving, inter-changing and assuming varying degrees of importance to the individual in the light of the reorganization and integration of his attitudes, thoughts and feelings...The impact of the forces of life, the interaction of individuals, and the very nature of a human being bring about this constantly changing integration within the individual" (p. 10).

The purpose of non-directive therapy is to create the proper conditions so that the above can proceed most favorably. The adult attempts to "be with" rather than to "interfere with" the child's play and fantasies. The therapist provides the secure "growing ground" for the child to develop.

Dorfman (1965) stressed the importance of the adult's communication of respect so that a child senses that this is a situation where he can be his real self. The adult must be genuine, warm and understanding so that the child may feel safe enough to relax his defenses long enough to see how it feels to operate without them. The adult accepts the child exactly as he is at the moment and does not try to mold him into some socially approved form. He makes no attempt to respond to the child of the last contact, but confines himself to feelings currently expressed. By this means it is hoped to heighten the child's awareness of what he is at the moment. The adult is there to provide warmth, understanding and company, but not leadership. He accepts the pace set by the child. The rate at which the child brings forth significant material is determined by his psychological readiness to do so. The adult must verbally communicate his acceptance of whatever behavior the child engages in. He must allow the child to express his feelings at his own pace. He must be involved in the child's activities but not control them.

Comparison of Analytic and Client-Centered Theories

Fantasy behavior in the child, like the dreams of adults, is the "royal road" to the unconscious. By understanding the child's fantasy behavior we can better understand the unconscious motives for his

behavior. When the adult is communicating acceptance, allowing self direction and becoming involved with the child, he is "being with" the child (Stollak, 1974, personal communication). The problem is that client centered therapy may be focused too much on the child's expression of positive and negative feelings (e.g., Landesburg & Snyder, 1946) and not enough on the intrapsychic determinants. On the other hand, analytic therapy (e.g., Freud, 1952) may be focused too much on helping the child understand his life rather than letting it unfold. The behaviors of the adult that create the proper environment as well as the negative behaviors that help the child understand his intrapsychic processes are both important in order to best promote psychotherapeutic gains. The present study attempted to integrate the contributions of both theories to describe the adult-child interaction more comprehensively than either theory could do separately.

Fantasy Behavior and Creativity

An understanding of fantasy behavior is, thus, of primary importance to psychotherapists. Many theorists believe it is also essential to understand the origin of creativity in the child. Kris's (1952) paper delineated the concept of "regression in the service of the ego." He described it as the temporary use of communication channels with more primary, generally preconscious modes of thought and feeling, for the sake of a creative outcome. The availability of primary processes "in the service of the ego" is a characteristic of witty and creative personalities. How does this availability of primary process material develop?

According to Kahn (1963), the mother's empathy toward her infant's sensory-motor and instinctual sensitivities function as a "protective shield." Gould (1972) elaborated that early identification with provider reflects continuity of "protective shield" experiences in the first two years. It mediates the child's aggressive impulses, facilitates early, relatively unconflicted superego development, furthers positive self-image and leads to control of drives. It fosters the child's wish to please. Erikson (1950) defined this phenomenon as "trust," Benedehl (1952) as "confidence," and Kris (1952) as "comfort."

According to Guilford (1962), as the child develops, his behavior may be characterized as convergent or divergent. Divergent processes are those in which an individual is able to generate a variety of novel responses which may or may not overlap with those of others. These novel reactions may form a basis of what we later call creative behavior. Hudson (1966) found that boys who are strongly oriented toward divergent processes are more likely to move towards artistic and literary interest and success as adults. Schaefer (1969) found that when high school students were evaluated by teachers in terms of demonstrated creative performance, they differed not in intelligence, but primarily in their having had or not having had an imaginary companion or make-believe playmate in childhood. Guilford (1963) identified 5 traits of creativity: fluency of thinking, flexibility, originality, elaboration, and ability to see problems in novel ways. High fantasy children are often creative and original in their use of play-equipment and in storytelling.

Singer (1973) felt that a child's capacity towards creativity requires at least some degree of stimulation. As early as 1901, Groos anticipated the value of make-believe for the later development of a

capacity to appreciate a variety of artistic and aesthetic experiences. In an attempt to directly study a relationship between fantasy and creativity, Feitelson (1973) found that modeling is an essential prerequisite for the emergence of thematic play and that level of thematic play is related to performance on conventional creativity tests.

Evidence is accumulating to support the theory that an infant's early experiences with his mother and later make-believe play may be important determinants of creativity in the adult. The attempt to provide more evidence for this theory, as well as its significance for child psychotherapy provide the rationale for studying fantasy processes of children as a function of adult sensitivity. The several dimensions of fantasy examined in this study will be described next.

Dependent Measures

Structure of fantasy behavior. The structure of fantasy behavior includes the duration, complexity, sequence, continuity and syntax of fantasy. In this study it was measured as follows:

1) The Transcendence Index. This is based on Weisskoff's (1950) Transcendence Index for scoring Thematic Apperception Test protocols. It was developed as a means to measure the degree of imaginativeness with which the child introduces time, space and related features not given in the immediate environment. For example, if the child accompanies his shooting of a dart gun with the fantasy of being a frontier sheriff, he is clearly using imagination or transcendence of the current situation. If he implies that there are characters in a game not visible to the adult, he is also transcending the situation. Pulaski (1973) found that children who played with unstructured toys produced a greater variety of

fantasy themes. She further found this index most reliable with correlations between .94 and .97 between judges. Gottlieb (1973) used the index to study whether children were producing fantasy or just fantasy-like behavior. She had children watch adults in fantasy play. She then let the children play. She found that children with a high fantasy predisposition as measured by the Transcendence Index showed more fantasy than fantasy-like behavior in their own play. In order for a fantasy to be present the child must transcend the actual situation.

2) Index of divergent thinking. This index derives from the work of Guilford (1967) who distinguished between convergent and divergent thinking. Convergent thinking consists of the ability to produce rather quickly answers that reflect a capacity for analysis and abstraction of data yielding a response that is generally agreed to be correct. Convergent processes would be measured by intelligence and achievement tests. On the other hand, divergent processes tap the capacity to generate a complex, differentiated series of responses to a common stimulus. Fantasy and imagination could be considered divergent. This scale reflected the degree to which the child used convergent and divergent thinking in his play behavior. Hudson (1966) found striking differences among boys in style of thinking. Some were strongly convergent and moved in the direction of scientific types of endeavor. Some were more divergent and moved towards artistic and literary types of interests and success. Wallach & Kogan (1965) produced evidence to support the notion of early differences in predisposition to associational fluidity patterns in children. Wallach & Wing's (1969) results indicated some relationship between ideational fluency and later achievement that can be considered creative.

3) Scope of Fantasy Scale. This scale indicates the degree to which make-believe elements reflect closeness to the immediate life situation of the child as contrasted with make-believe elements quite far removed from the day-to-day experience of the child. It goes beyond the simple rating of transcendence in terms of the introduction of make-believe elements in play. Some children will have fantasies related to playing house or going to school or going on a picnic, all games that are reasonably close to life situations in which they may indeed participate. Some will play games relatively far removed from their life situations, like playing pirates, or cops and robbers, cowboys, spacemen, etc. Pitcher & Prelinger (1963) reported that both boys and girls consistently tend to utilize wider and wider spaces (increased distance from their body and immediate surroundings) in their fantasy productions as age increases. Singer & Steiner (1966) found that congenitally blind children show less complex and varied images that relate to completely unreal characters: monsters, Martians, etc., than normal children who read more and watch T.V. more. They concluded that the sighted children have more complex and varied fantasies than the blind children. There was, however, no difference in the number of fantasy products.

4) Concentration. This dimension relates fantasy play to other cognitive behaviors. Concentration refers to the child's capacity to unfold a relatively organized and extended sequence of activities without becoming excessively dependent on each new external stimulus. For instance, how long can a child stick to a game or fantasy without new toys making him play a new game or have a new fantasy? Freyberg (1973) found a high intercorrelation between imaginativeness and concentration and suggested they may be a unitary dimension. By its very nature, she suggests,

imaginative play may require longer drawn out sequences of behavior. Pulaski (1973) showed that high fantasy children show high concentration significantly more often than low fantasy children.

5) Affects and moods. This dimension is based on Singer's (1973) ratings of the child's affect when engaging in fantasy. If, as Klinger (1971) argued, make-believe play is inherently rewarding or satisfying, we should observe positive emotions on the part of children engaged in such activities. Also not just positive vs. negative effects but mood changes during play may be important. Pitcher and Prelinger (1963) showed that as age progresses, both boys and girls attribute more detailed processes of thinking, feeling, affect or emotion to their characters. Moods, based on Tomkins' (1962, 1963) development of a fundamental group of emotional possibilities, were scored. They included the three positive affects: interest-excitement, enjoyment-joy, and surprise-startle and five negative affects: fear-terror, distress-anguish, shame-humiliation, contempt-disgust and anger-rage.

Content of Fantasy Behavior

The content of the child's fantasies express the way in which his relationship with his environment influences his affective and cognitive development. It is particularly concerned with the development of identification, individuation, modes of defense and functions of morality. Gould's (1972) works suggested three ways of measuring individual differences among children. Her work was based on the detailed analysis of over 1000 fantasy protocols presented to her by teachers over a ten year period.

6) Type of identification used by the child. One type of individual difference is in the child's self representation in the fantasy. "One

distinguishes the form in relation to the child's self, i.e., direct "I" vs. distance from self as in "I'm a witch" (p.6). Distance forms are developmentally more advanced. Also, one can identify three types of identifications the child uses: identification with the provider and/or protector, identification with the victim, and identification with the aggressor. Prelinger and Pitcher (1963) suggested that girls' earlier identification with their mothers promotes the growth of self-control and conscience, and favors a relatively more pro-social (adult-like) aggression than appears in boys.

7) Fluctuating certainty. Another indicator of individual differences is "fluctuating certainty" or "an ego state that manifests itself in the child's more or less ability to distinguish between pretend and real danger" (p.7). The ability to make the distinction (a sense of safety) is a developmental advance.

8) Global vs. limited condemnation. A third dimension reflects the development of a benign or harsh superego. It is expressed in terms of "limited" or "global" self condemnation. The latter is found more often in children who identify with the aggressor. According to Gould (1972), superego constancy, or the self in alliance with its superego introject(s) comes about as a result of identification with the provider-protector. It leads to reactively stable, positive, influential operation of a functional superego over a period of time. Individual differences can be expected in the degree of superego constancy between children and therefore in their ability to cope with stressful situations.

9) Wish fulfillment vs. replication. Another distinction was proposed by Levin and Wardwell (1962). They distinguished between wish fulfillment and replication fantasies. Wish fulfillment includes:

a) evidence that there are in real life some restraints against the expression of the behavior in question, b) a desire for such expression, c) little overt manifestation of the behavior and d) the appearance of the behavior in fantasy. Non-fantasy expression is prohibited, so it is expressed in fantasy. Replication fantasies permit the child to express current experiences and preoccupations and give the child the chance to practice and develop skills transferable to non-fantasy life. Movement from wish-fulfillment to replication fantasies indicates an increase in maturity.

10) Inanimate vs. animate objects. Gondor (1964) suggested that fantasy behavior can be differentiated in terms of degree of reference, i.e., from inanimate to animate objects. "We are able to see that they (fantasies) led from a preoccupation with inanimate objects over to animals and then to human beings and are thus indicative of stages of ego functioning..." (p. 382). Pitcher and Prelinger (1963) found that 2 to 5 year old boys and girls differed in the following dimensions: boys tended to go more out of bounds, to fraternize more with the grandiose and unknown and to identify more with people, animals and objects having a high degree of motion or energy. They were more likely to go out to the object rather than to bring the object to themselves. Girls more often stayed closer to the here and now in their main interests, which included the domestic and family scenes.

The Adult's Role in the Origins of the Child's Fantasy Behavior.

Fantasy behavior is a many-faceted phenomenon. The adult affects the child's fantasy behavior in many different ways. Before the specific hypotheses are presented, a rationale will be given for how the adult's behavior is related to the child's fantasy behavior.

Erikson (1950) described "basic trust"as an antecedent affective-cognitive orientation that shapes a child's sense of autonomy. Through a child's early interpersonal experiences he acquires a sense of object constancy in the psychoanalytic sense. Sandler & Joffe (1967) pointed out that "changes in feeling states (are) the impetus to the development of psychological structures and represent the ultimate basis for the ego's regulatory functions. (Ego autonomy)...can be regarded as the individual's freedom to explore and find new solutions without suffering intolerable disruption of the internal feeling state of wellbeing or safety" (p.513). Pines (1969) reported that in order for a child to develop a sense of competency he needs a capacity for sustained concentration. Variety in his object surroundings and the affective valence in the people around him are important. Apparently at a very early age and in a very basic sense, the people in the child's environment help shape his fantasy behavior. If the adults have created a basic sense of trust, fostered ego autonomy and given the child a variety of stimuli, he is more likely to engage in fantasy behavior.

Stollak (personal communication) speculated that many clinic-referred children have low self-esteem resulting from frequent and intense anxiety states and frequent and durable constriction of their inner experiences. Through over-manipulation of rewards and/or punishments administered by significant adults, validation of self became overly externally oriented for these children. The judgments of parents, teachers and peers weigh heavily on them. The adult's role in play sessions is to try to create an atmosphere where the child can be free to explore his inner experience and thus to rediscover his own inner self. For the child, more than for the adult, fantasy life is the more definitive manifestation of internal self.

If the adult can encourage the child to explore his fantasy world, he will thus help him rediscover himself. By accepting the child's behavior and allowing the child to follow his own direction the adult creates the safe atmosphere where the child can explore his fantasies unfettered by external restraints. By being involved with the child both verbally and nonverbally, he shows that his acceptance is genuine and not ambiguous, and he would truly be with the child in his efforts to find himself.

The adult's communication of acceptance and allowing self direction give the child support to transcend the playroom reality and to introduce elements of different time and space (Transcendence Index). As the child feels more and more comfortable in the play sessions he should introduce elements of his fantasy further and further removed from his day-to-day experiences (Scope of Fantasy scale). He should begin to use more differentiated and complex responses to the same stimulus as he sees that the adult accepts this type of behavior (divergent thinking). When the adult is highly involved and truly allowing the child self-direction, the child should be able to carry out a relatively organized and extended sequence of activities (concentration). If the adult allows the child self direction and if Klinger (1971) is correct that make-believe play is inherently rewarding or satisfying, then the child should show more positive emotions when engaged in fantasy play (Affect scale). Tomkins (1962, 1963) extended this notion to include not just affects but mood states, which should also be in the positive direction during fantasy play (Mood scales). The child should progress from identification with the aggressor to identification with the provider in his fantasies as he masters the fears that cause his aggressive fantasies. The adult's role is to accept the child's fears and encourage more positive identification by allowing the child to develop at his own rate of speed (Identification scale). If

the child feels his fantasies are accepted, he should be less likely to have trouble distinguishing between the pretend danger of his fantasy life and real danger to himself (fluctuating certainty). He should be less likely to have self-condemnation fantasies (superego constancy). As the child masters his fantasy world as a result of the adult's sensitivity to him on all dimensions, his fantasy life should become less bizarre. He should move from more wish fulfillment to more replicative fantasies. Finally, after a period of sensitive behavior on the adult's part the child's fantasies should become more human oriented and less animal and object oriented. Because the adult has accepted and become involved in the child's bizarre fantasies while letting him give them up at his own pace, the child gradually should begin to master his fantasy world.

Hypotheses

The purpose of this study was to gather information about the effect of sensitive and insensitive behavior of adults on some aspects of the child's fantasy behavior. The following hypotheses were tested.

Hypothesis 1: Over 15 sessions of play, children who encounter sensitive adults will show more transcendent behavior than those who encounter less sensitive adults.

Hypothesis 2: Over 15 sessions of play, children who encounter sensitive adults will show more divergent thinking than those who encounter less sensitive adults.

Hypothesis 3: Over 15 sessions of play, children who encounter sensitive adults will include more make-believe elements far removed from their day-to-day experiences than those who encounter less sensitive adults.

Hypothesis 4: Over 15 sessions of play, children who encounter sensitive adults will be able to concentrate for longer periods of time than those who encounter less sensitive adults.

Hypothesis 5: Over 15 sessions of play, children who encounter sensitive adults will show more positive affects and moods during fantasy play than those who encounter less sensitive adults.

Hypothesis 6: Over 15 sessions of play, children who encounter sensitive adults will identify with the provider and/or protector rather than victim or aggressor more than those who encounter less sensitive adults.

Hypothesis 7: Over 15 sessions of play, children who encounter sensitive adults will show less "fluctuating certainty" or more ability to distinguish between pretend and real danger than those who encounter less sensitive adults.

Hypothesis 8: Over 15 sessions of play, children who encounter sensitive adults will show more superego constancy of "limited" self condemnation than those who encounter less sensitive adults.

Hypothesis 9: Over 15 sessions of play, children who encounter sensitive adults will have more replicative than wish-fulfilling fantasies than those who encounter less sensitive adults.

Hypothesis 10: Over 15 sessions of play, children who encounter sensitive adults will have more human and animal than object references in their fantasy play than those who encounter less sensitive adults.

METHOD

The videotapes used for this study were originally collected for a research project (Stollak, et al., in press) which was carried out in 1970-1972 and replicated during 1972-1973. Stollak, et al. were interested in the effects of potential and training of young adults in their ability to encounter and positively affect clinic-referred children. The present study examined effects of potential and training of the adults on the fantasy behavior of the children.

The first part of the following procedure is based on Stollak's (1973) summary of the project from which the Ss for the study were drawn.

Personal Characteristics of Adults

In this project, specific personal characteristics of the adults were controlled for. From the large number of potential undergraduate subjects, the ten males and ten females who scored highest (i.e., had more "child-oriented," "liberal" values and attitudes; were better able to communicate understanding and acceptance of children's needs and feelings; and presented themselves as being within the "average" range on various psychological dimensions) on three inventories (the Parent Attitude Research Instrument, a Sensitivity to Children projective questionnaire developed by Stollak, and a Personality Questionnaire also developed by Stollak designed to assess general "mental health"); were designated High Potential Students (HPS's), and the ten male and ten female subjects who

scored "lowest" were designated as Low Potential Subjects (LPS's). Ten HPS's and ten LPS's were randomly chosen from this pool and comprised the experimental group (trainees) and the remaining ten HPS's and LPS's comprised the control or untrained groups. The groups included equal numbers of females and males.

Control Group Activities

Stollak met individually with each of the twenty control group students and informed each of them (1) of the random selection process, (2) of the necessity for a control condition to evaluate the effects of training and supervision on their and the child's behavior, (3) that they would be called when there was a clinic-referred child to meet with, (4) that at the end of the experiment they would be permitted, if they so desired, to participate in a course of training similar to that received by the experimental group subjects, and (5) that until the conclusion of the study they would receive neither training nor supervision during the sessions. They were also told that they would be observed playing with the child through a one-way mirror every session, to insure that neither they nor the child were "destructive" to each other. Finally, they were given a list of books on play therapy to read if they wished, but they were not allowed to discuss the material with the observer.

Trainee Group Activities

The 20 trainees were randomly assigned to one of three groups. These groups, consisting of six or seven trainees each, with approximately equal numbers of HPS's and LPS's (and males and females) in each group, met two hours weekly from October, 1970, through June, 1971. Stollak met with one of the groups, and each of the others was met by a graduate

research assistant.* Until they began play sessions with clinic-referred children, the activities of the trainees included, for the first 19 weeks, discussion of the Sensitivity to Children questionnaire; attempts to get group agreement as to how best to handle each item problem; and specific readings and discussion topics. During the meetings, principles of sensitive and effective communication with children were discussed; the principles involved a combination of traditional client-centered tenets and behavioristic concepts, especially the importance of the students' understanding which child behaviors they were reinforcing. Readings from the work of Axline and Moustakas, and material from five one-hour, edited video-tapes consisting of sensitive and insensitive handling of various child behaviors ranging from expression of affection and aggression to uncertainty were primary sources for discussions. Extensive use was made of role-playing, and examples and possible problems they would encounter with children were discussed.

In addition trainees began play with a "normal" child as soon as possible. Each student was then video-taped playing with his child and this material became the focus of group discussions. The play practice allowed the trainee to establish an intimate relationship with a child while enabling him to get a feel for the stability and repetitive themes of the child's behavior as well as the change and growth that took place. Throughout the group discussions a major focus was on the importance of empathy and the possible effects of the adult's actions on the emotions and actions of the child.

It was planned that all of the trainees would continue with their "normal" child until they were assigned to a clinic-referred child

* The graduate assistants were Sharon Berliner and Allan Scholom.

approximately fifteen weeks into the school year. While training was progressing, referrals of four to nine year old children were being made to the Psychological Clinic. It was decided that if the clinic evaluation indicated that (a) emotional and behavioral problems did exist, (b) the child had an intelligence quotient within the average range, (c) the child's problems did not involve any neurological or physical impairment, (d) the child was not psychotic, and (e) neither of the parents was a psychotic, suicidal or homicidal risk, then the recommendation would be for individual play assessment sessions. If the parents concurred with the recommendation for fifteen sessions of play interaction (at no fee) with a "therapist in training" whom a graduate student would be observing, then the graduate student, through a randomization process, called a trainee or control group subject and arranged a time convenient for him, the student and the parents to bring the child to the clinic.

The parents were asked only to make a commitment to an initial fifteen sessions of play. If at the end of the fifteen sessions they were dissatisfied with progress and did not wish to continue such a procedure, or if it was felt that as a result of the second evaluation one or both parents needed to begin individual treatment or marital counseling, then other treatment programs or procedures were discussed and instituted and the child was dropped from the program. Otherwise, if the parents were content with the procedure and it was felt that at least some progress was being made by the undergraduate with the child, then individual play continued, subject to change when necessary.

All sessions were observed by a graduate student (participating in a child psychotherapy sequence) through a one-way mirror. An attempt was made to videotape every first, sixth, eleventh, and fifteenth session.

The graduate student gave immediate supervision and feedback concerning the performance of the students, who were also participating in the weekly group meetings. The untrained student did not receive any supervision or feedback except for general encouragement or sympathy when needed.

Adult Measures

The present research involved Ss whose behavior had been previously studied. As reported in Stollak et al. (in press), a measurement scale was used which had been developed by Stover, Guerney and O'Connell (1971). The scale included measures of (1) Communication of Acceptance, (2) Allowing the Child Self-Direction, and (3) Involvement, with each ranging from a high rating of "1" to a low rating of "5" (see enclosed scoring and scale sheets in Appendix A).

In order to obtain a reliability measure, after a four-hour training period with the experimenter designated as "expert," five coders independently rated three half-hour videotapes of undergraduate play interaction obtained in other projects. Ratings were made for the highest and lowest instances of undergraduate behavior in each scale for each two minutes of the videotapes. The scores from each coder were then compared to the scores of the "expert," and a mean percentage agreement of the "expert" with the raters was obtained.

After adequate reliability was established, the coders,* who were unaware of the hypotheses of the study, the characteristics of the undergraduate therapist, or the session number, then independently rated the half-hour control and trainee play sessions (first, sixth, eleventh, and

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* Nancy White, Richard Huber, Deletha Crum, Delores DeMike, and Ardis Armstrong.

fifteenth) that were available. Table 1 gives a breakdown by session of the total of 36 subjects for whom results were obtained.

TABLE 1. Subjects (N = 36)

Group	Session	1	6	11	15
HPS-Trainee	(N = 8)	8	7	7	6
HPS-Control	(N = 10)	10	5	6	3
LPS-Trainee	(N = 11)	10	9	3	8
LPS-Control	(N = 7)	7	6	6	5

Following the coding, reliability measures (i.e., mean percentage agreement with the "expert") were again obtained with the three coders who were still available.

Reliability of the Independent Variables

In order to enhance the meaning of possible results, reliability of the variables was obtained. Table 2 presents the mean percentage agreement of the "expert" with coders for the three scales: Acceptance of the Child, Allowing the Child Self-Direction, and Involvement. The pre-coding measures were based on scores of five raters, independently rating three half-hour videotapes of undergraduates' play interaction obtained in other projects, after a four-hour training period as compared to the experiment "expert;" the post-coding measures were based on the scores of the three raters who were still available at the time.

TABLE 2. Mean Percentage Agreement of Expert with Raters Before and After Coding.

Ratings:	Low		High	
Category:	pre-cod.	post-cod.	pre-cod.	post-cod.
Acceptance	93.8%	88.7%	88.2%	90.3%
Self-Direct.	87.0%	86.3%	90.2%	90.3%
Involvement	89.4%	91.7%	90.4%	90.0%

Since the same coders were used when the study was replicated, no further reliability ratings were obtained for the additional subjects whose behavior was not analyzed in the above table. The table suggests that for this first sample the ratings were made with consistently high reliability. The range for the pre-coding mean percentage agreements was 87.0% to 93.8% and the post-coding 86.3% to 91.7%.

Fantasy Measures. The measures included frequency counts and rating scales. The rules for each of the scale ratings are given below. With two exceptions each scale ranged from one to five, with five representing the "high" or "positive"end of the scale. The rater scored for each scale during each 30 seconds of each videotape.

1. Transcendent behavior: This consisted of a count of the number of imaginary items supplied by the child, as opposed to what had already been supplied in a given stimulus situation. For example, identifying family members in a doll situation received no credit, since this was obvious in the dolls themselves. If, however, the child volunteered that the father "was going to work in New York City," he was given credit for two imaginary items: 1) going to work, 2) in New York City. Anything said by the dolls or any feelings or activities ascribed to them were

scored and summed up. Each detail supplied by the child was counted, whether mentioned by him or not. If, for example, he molded a dinosaur out of clay he was given credit for a spiked back, short arms and a long tail as each of these appeared, whether he mentioned them or not. If he played with the dinosaur he received no further credit, but if he said the dinosaur was walking in the forest he receives two points. Any further mention of the forest received no further credit, as each item was scored only once in order not to confuse verbal productivity with imagination.

Not all items that received credit were verbal. Many expressive noises were scored if the observers agreed to their meaning. Police siren noises contributed to a story of a car crashing as did the wedding march hummed while playing with a bride doll. The motions of space-walking by children in astronaut costumes were also scored.

Pulaski (1973) found that three raters could achieve an inter-rater reliability of between .94 and .99 on the Transcendence index.

2. Divergent thinking: This consisted of a count of the number of times a child changed the character of a toy to represent other persons or toys or used a few platic toys to represent other persons or the toys. For example, a child using a bobo doll to be his baby brother scored a point.

3. Scope of Fantasy Scale: This consisted of a rating of the child's ability to deal with the fantastic aspects of make-believe, fairies, witches, life on another planet, etc., as opposed to the reality of the child's everyday experience. The various steps in the rating scale are described by Pulaski (1973) as follows:

0 Anything likely to be part of the child's daily experience: e.g., Christmas trees, Indian headdress. Events with a high probability of having been experienced directly such as getting gas, going to the circus.

1 That which exists in reality, but most likely has been experienced only indirectly through conversation, books, or television, e.g., knowledge of the solar system, stories of dinosaurs, castles, outer space.

2 That which exists largely in the emotions: silly aggressive fantasies of the television cartoon type; emotional fantasies; fantasies verging on the bizarre, e.g., mother puts the baby in the toilet, hangs him on the clothesline to dry.

3 Fantasy that gives a new twist to familiar realities: e.g., an umbrella is used as an air conditioner; a "junk jewelry" chain becomes a pair of handcuffs.

4 Addition of fantasy details to a reality stimulus: e.g., a snowman is magically able to talk and grants three wishes. The story centers around the real stimulus, but adds fantasy details.

5 Addition of fantasy events to a reality stimulus: e.g., the diver doll becomes a "fantastic hero" who had adventures moving away in time and space from the immediate situation. The fantasied events take precedence over the original stimulus.

4. Concentration: This was designed to show how quickly the child settled down to play, how deeply absorbed he became, and how much exploration or tangential behavior he exhibited. It was not a direct rating of fantasy per se. Ratings ranged from 1, for brief or little interest in play with many questions and quick responses to irrelevant noises (e.g., the chimes of the bell tower) to 5, for deep absorption in play and extended activity with one toy. The definitions for each point of the scale as described by Freyberg (1973) follow:

Concentration

1. Shows brief or little attention to or absorption in activities; aimless wandering, high distractibility, many questions to adult; responding to noises outside room. Hyperactivity with no real interaction with play material.

2. Engages in superficial play with toys and play material while looking around the room, staring passively, talking to adult, or wandering aimlessly. Changes toys and/or activities frequently.

3. Responds with moderate interest to the toys or play activities. Changes activities only once during the 30 sec. segment. Some distractibility and no real loss of self in the play situation. Some response to outside stimuli such as noises and the talk of people outside room.

4. Shows good absorption in play activity; very little response to outside stimuli, no change of activity during 30 sec. segment; no tangential behavior or conversation pertaining to activities other than the one at hand.

5. Shows intense absorption in play activity; stays with one activity for a long period of time; oblivious to outside stimuli, may not even respond to direct questions from teacher or children not included in the play situation at hand.

The scales for affect and concentration were based on those used effectively by Pulaski (1971) in her study of children's play.

5. Affect and Mood: Each child's emotional reaction was judged by his or her verbal and/or nonverbal behaviors. The ratings ranged from 1, for interested behavior, to 5, for eager enjoyment of the fantasy, shown by laughter, singing, and reluctance to discontinue the fantasy. The definitions of the five points of Freyberg's (1973) affect scale follow:

Affect

(Note that mild surprise, interest, and joy are viewed as positive affects and scored high).

1. Shows no interest or pleasure in the toys or play activities; much tangential behavior, conversations with adult; critical remarks about toys or play activities; no smiling, laughter, or evidence of pleasure in playing.

2. Shows only mild pleasure and interest in toys or play activities; much looking around and/or desultory manipulation of play material. Occasional smiling or laughter.

3. Shows moderate interest, pleasure and enjoyment of activities and toys; talking freely about the play activities; somewhat lost in quiet enjoyment, considerable smiling and/or laughter during activities; some animation.

4. Shows deep pleasure and interest in play activity, smiling or laughing frequently. Expresses frequent pleasure, describing spontaneously or acting out fantasies in play.

5. Shows extreme delight in play; laughing, singing, smiling; thoroughly enjoying self in play, reluctant to leave play situation.

Mood Checklist

Following Freyberg (1973) the rating of the child's mood was somewhat more difficult and unusual. There were eight moods to be evaluated. Since each child's moods might fluctuate from time to time and vary widely in even 10 minutes, it was important to rate each child on each mood for each 30 seconds of play. Figure 1 presents the guidelines used to rate moods. Note that a rating of 1 indicated minimal occurrence of the mood and a rating of 5 indicated a strong manifestation of the mood.

6. Identification: Based on a theory of Gould (1973), the child's ability to identify with the provider/protector as opposed to his identification with the aggressor was rated. For example, a child who played the role of a mother who is always angry at her baby or hitting her because she doesn't listen was rated as identifying with the aggressor. A child who fantasized soothing a child who has been punished was rated as identifying with the protector/provider.

7. Fluctuating certainty: This rating, also based on a theory of Gould (1973) consisted of an evaluation of the child's ability to distinguish real from pretend danger. It included (1) differentiation in the fantasy between the danger in the fantasy and a real threat to him or her, and (2) breaking out of fantasy because of present "danger". For example, a child took the position of director assigning roles to several girls. She said "And you'll be the bad child." The other child said angrily, "I am not bad." She was unable to separate bad in fantasy from bad in reality so she had to break out of the fantasy.

Mood	Score 1 not at all	2 slightly	3 moderately	4 very	5 extremely
Angry-annoyed		Shrug, tsk-like comment	frowns	stamps feet, bangs table, shrill voice	clenched jaw, clenched fist, red face, menacing posture, glaring, yelling
Fearful-tense		pacing up and down, tapping feet or fingers	biting nails, wringing hands, pale, eyes wide	cold, sweaty squirming	facial trembling, body trembling body rigid, hair erect, tremulous or quavering voice
Lively-excited		whistling, humming	high color, flushed face, eyes sparkling fast paced action or activity	jabbering, giggling, wriggling	skipping, jumping, dancing, bounding about
Elated-pleased		smiling	broad grin	joking, jesting, clapping hands	laughing, hugging
Sad-downhearted		looking down at floor	frowning, pouting, droopy mouth	lips quivering, voice quivering, drooped shoulders, hunched position	crying, sobbing

FIGURE 1. Mood Checklist

Mood Checklist (cont'd)

Mood	Score 1 not at all	2 slightly	3 moderately	4 very	5 extremely
Ashamed-contrite		looking quickly away,	head down	shrinking posture, blushing, lowered voice, begging, pleading voice	hiding one's face
Contemptuous disgusted		looking askance	turn up nose, turn back on, point at	sneering, smirking, lips curled, shuddering	booing, hissing, hooting, snarling
Fatigued-sluggish		leaning, slouched, whining voice	feet dragging, plodding	eyes half closed, heavy-lidded, yawning	head on table, head bobbing, sprawled out in chair or on floor

8. Superego Constancy: This third scale based on Gould's (1973) work consisted of an evaluation of the intensity of the child's blame, shame, guilt or apologetic reactions to the predicaments of his fantasy characters. It ranged from (1) high intensity of blame to (3) recognizes the predicament of the fantasy character but leaves the problem to him and doesn't blame self for it. For example, a child who creates an imaginary character with a puppet who says things like "you mustn't do that" or "try to eat nicely so you won't be scolded," exhibits high intensity of blame. A child who creates an imaginary character who says "watch out so you don't hurt yourself" or "you didn't do that on purpose did you?" shows a low degree of blame. The scale was organized as follows:

1	2	3
high intensity	moderate intensity	no blame etc.

9. Wish fulfillment vs. replicative fantasies: This scale by Levin & Wardwell (1962) counted the number of wish fulfillment as opposed to replicative fantasies. In order to decide whether a fantasy is wish fulfilling it must meet four criteria: a) some restraints in real life against the expression of the behavior in question, b) a desire for such expression, c) little overt manifestation of the behavior and (d) the appearance of the behavior in fantasy. Guides in making the distinction between wish fulfillment and replication fantasies included:

a) examine the sequence of events rather than simple unit, e.g., the father spanks the boy and the boy hits the father, is more likely to be wish fulfilling than the father spanks the boy and the boy cries. If the unit (father spanks the boy) were analyzed alone it would be impossible to tell whether it was a wish fulfillment or replication.

b) tangential behavior which interrupts the fantasy, such as looking out the window or talking about something apparently unrelated to the fantasy, may indicate boredom, lack of imagination or anxiety about some impulse which is at the threshold of experience.

c) use prior knowledge about the child to verify wish fulfillment vs. replication, e.g., what has actually happened to the child before the fantasy.

10. Human and animal references: This count consisted of the number of human, animal and object references in each play segment. It was created because of the suggestion by Gondor in her article.

Procedure for Coding Fantasy Behavior

Five sets of two coders each coded the child's behavior. Each coder worked with another. Rater's means for each category were used in the data analysis.

Unaware of the hypothesis of the study, the ten assistants*(each trained separately) were initially presented with the categories to be scored. The scoring categories were read aloud to each of the coders. Discussion followed, definitions were revised and made clearer, and the assistants were given copies of the scales to learn. They then rated three videotapes as a group. Consensual agreement was reached on ratings. They were then given three videotapes to code by themselves. They discussed these as a group. They were then given one more videotape to code. This served as the tape which was used to determine inter-rater reliability. The inter-rater reliabilities were sufficient.

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* The investigator would like to thank Jon Bastian, Dave Brittain, Joyce Dangle, Gale Kingsley, Jeff Lublin, Al Must, Bill Scheer, Clara Schwinck, Barb Sorenson and Jenny Walters for their time, efforts and dedication to a difficult, time-consuming task.

Reliability of the Fantasy Rating Scales

Table 3 represents the average correlations of the mean scores of all coders over the four sessions. The scores are based on the scores of 10 coders, independently rating the videotapes on the variables assigned to them. Each coder was compared with each other coder to get the inter-coder reliability.

The range for the average correlations was 0.02 to .87. This indicated a great range in reliability. The large majority of the scales showed sufficient reliability ($p < .05$) to be included in the subsequent analyses. The Fluctuating Certainty scale was dropped because of insufficient reliability.

Table 3. Intercoder reliabilities of the four sessions.

Variable	Session				Average
	1	2	3	4	
Transcendence index	.43	.22	.43	.42	.47
Divergent thinking	.16	.23	.25	.27	.22
Scope of fantasy	.34	.42	.62	.48	.54
Concentration	.53	.16	.51	-.19	.34
Identification	.70	.32	.68	.76	.64
Fluctuating certainty	.00	.00	.00	-.09	-.02
Superego constancy	.37	.34	.45	-.02	.31
Wish fulfillment vs. replication	.22	.42	.32	.55	.40
Human references	.51	.86	.74	.77	.71
Animal references	.32	.62	.71	.87	.63
Object references	.64	.74	.91	.64	.75
Affect	.72	.65	.65	.09	.87
Angry-annoyed	.87	.67	.70	.84	.86
Fearful-tense	.50	.67	.58	.56	.59
Lively-excited	.73	.68	.85	.34	.70
Elated-pleased	.29	.62	.26	.16	.38
Ashamed-contrite	.26	.84	.75	.56	.62
Contemptuous-disgusted	.54	.83	.53	.58	.71
Fatigued-sluggish	.44	.68	.93	-.28	.41
Sad-downhearted	.82	.51	.95	.51	.78

RESULTS

Analysis of the Data

The data were analyzed by means of two procedures. To explore in general what occurred over all the sessions an analysis of variance was conducted. There were 5 independent variables to be considered: 1) involvement, 2) allowing self direction, 3) communication of acceptance, 4) training and 5) potential. The purpose of the analysis of variance was to see whether there were differences in distribution of the fantasy measures as a function of the independent variables. It was a goal of this study to see whether the above variables had any interaction effects on the child's fantasy behavior. It was hoped that separate analyses could be obtained for each session. This was not possible because of the limited number of subjects. The number of subjects in each cell is presented in Appendix B.

Partly because session by session analyses of variance could not be performed and partly because of a desire to acquire some insight into the causal relationships between variables, a cross-lagged panel correlation analysis was conducted.

Involvement, Allowing Self Direction and Communication of Acceptance

Stover, Guerney and O'Connel (1971) isolated these first three of the independent variables from a seven point bipolar measure of empathy they had previously developed. Each scale ranged from a high rating of one to a low rating of five. Each point on the scale listed typical responses

obtained from codings of direct observations of parents and children. Each of the three scales was coded every two minutes during each 30 minute tape. To obtain the score for each scale, the mean across each two minute rating period was calculated for each variable. Guerney et al. found that the communication of acceptance scale correlated significantly with both allowing self direction and involvement, but the correlations were only moderate in degree, indicating that it was reasonable to examine the scales separately. Each adult in the present study was rated during each of the 4 sessions on all three scales. The scores for each adult were then rank ordered for each session and the median score for each variable was determined. Adults who scored at or below the determined median were defined as more involved, allowed more self direction and communicated more acceptance on that variable for that session. Those who scored above the median were considered to be the reverse. The subject's mode of responding in the majority of the sessions was used for the purposes of the analysis. It was possible, for example, for a person to achieve high scores on communication of acceptance and low scores on involvement and allowing self direction. Once it was determined how a person reacted over all sessions his child's mean fantasy scores were determined using all sessions that he had that "majority" score. The other scores were not used in this analysis.

An example can best outline the way the scores were derived. Subject 1 communicated acceptance for all sessions. The scores for the analysis would be the mean of his child's fantasy scores in all sessions. He allowed self direction in sessions 1, 2 and 3 but he did not in session 4. Session 4 would not contribute to the fantasy means score across sessions. He was involved for sessions 1 and 2 and uninvolved in sessions 3 and 4.

His child could not be used as a subject in the involvement analysis of variance because he had no "majority" score for involvement. This procedure was rationalized on the following basis. The purpose of the analysis of variance was to get an overall picture of the effects of the independent variables. Because of the small sample size, if subjects who were "accepting" in the majority of sessions but not in all were not used in the analysis, there would have been considerably fewer subjects in the analysis. Had there been more subjects, it would have been preferable to use only subjects with consistent score over all four sessions. A larger sample would have also permitted a session by session analysis. Unfortunately, neither was possible; so the "majority" strategy was adopted. It was felt that this would not make the data totally meaningless. The "majority" score approximates the score that was observed for each subject over all the sessions.

Potential

The potential score consisted of the adult's score on the Parents Attitude Research Instrument, a Sensitivity to Children projective questionnaire developed by Stollak and a personality questionnaire developed by Stollak to assess general mental health. The adults who had the highest scores (i.e., had more child oriented, liberal values and attitudes, were more able to communicate understanding and acceptance of children's needs and feelings, and presented themselves as being in the average range on various psychological dimensions) were considered "high potential" adults. Those who had the lowest scores on all three instruments were considered "low potential" adults. The distribution of subjects across independent variables is found in the Appendix.

Training

The training score was simply an indicator of whether the subject was trained and received supervision, or not.

Dependent Variables

There were 10 scales directly measuring fantasy activity, an affect scale, 8 mood scales and a concentration scale. The 10 fantasy scales were designed to measure behavioral manifestations of fantasy activity directly. The affect scale, mood scales and concentration scales were attempts to determine how deeply involved in fantasy the child was. Each subject was to be measured on all 20 variables during each session. Each variable was rated every 30 seconds during the tape and the mean of the 60 scores gathered during the 30 minute play session was used in the data analysis.

Analysis of Variance

The adult behaviors were on the dimensions of involvement, allowing self direction and communication of acceptance. Three 2(adult behaviors) x 2(trained-untrained)x 2(high potential-low potential) x 20(fantasy measures) analysis of variance with unequal cell frequencies were used. A least squares solution was used to adjust for unequal cell frequencies. Had the loss of data been random (in no way related to experimental variables) an unweighted analysis would have been used. Since in this experiment there may have been decreased cell frequencies related to their decreased relative occurrence in the population, least squares was the most appropriate solution.

Because of the small sample size, and possibly because of their slight appearance in the population, there was only one subject in the

categories of: 1) high involved, allowing self direction, accepting, low potential, untrained, and 2) low involved, allowing self direction, accepting, high potential, trained. It was possible, as a result of the median split, for a subject to be high on any of the 3 variables in one session and not in another. As a result of the above phenomena it was not possible to carry out individual session by session analyses of variance. An overall analysis was all that was possible. A mean score was determined for each subject over all the sessions, as described above.

Once each subject's mean scores for all the dependent measures were computed, three multivariate analyses of variance were performed, one for involvement, one for allowing self direction and one for communication of acceptance, taken separately. These were examined for significant main effects on the above variables and for potential and training effects. Where there were interaction effects, simple effects tests were carried out to further clarify the data.

To summarize, adult behaviors were involvement, allowing self direction and communication of acceptance. Three 2(adult behaviors) x 2 (trained-untrained) x 2(high potential-low potential) x 20(fantasy measures) analyses of variance were carried out. This gave an overall picture of the samples across all sessions. A cross-lagged panel correlational analysis looked at the effect of a subject's behavior in one session as it may have caused behavior in later sessions. The results of the two separate analyses will now be presented.

Involvement x Training x Potential ANOVA

Table 4 presents a summary of the results of the involvement x training x potential multivariate ANOVA. The multivariate effect of training was significant. Children who encountered adults who were

Table 4. Multivariate analysis of variance of the mean fantasy output of the children based on involvement x training x potential.

Source	df	F
involvement(a)	5	1.4307
training(b)	5	6.7340*
potential(c)	5	3.5552
ab	5	2.5813
ac	5	2.7911
bc	5	10.5709**
abc	5	11.5295**
Ss within cond.	20	

P .05*
P .01**

trained engaged in more fantasy activity, in general, than those who encountered untrained adults. To examine what specific fantasy variables were most effected, univariate analyses were performed. Because 20 dependent variables were examined, a p level of .0025 (i.e., 05/20) was chosen as an appropriate significance level for the univariates to guard against "false positive" results. There was a significant effect for the divergence scale ($F = 21.559$, $p < .002$). There was a marginally significant effect for ashamed-contrite scale ($F = 8.264$, $p < .008$) and wish fulfillment vs. replication ($F = 8.237$, $p < .0085$). Both alpha levels were close enough to .0025 to merit further analysis. Trained adults interacted with children to produce significantly more divergent responses than untrained adults. The children also produced more replication rather than wish fulfillment fantasies. Surprisingly, trained adults interacted with children who expressed more shame in their fantasies. One would have expected more positive rather than negative moods expressed by the children playing with adults who were trained. In fact, more positive and negative moods were elicited by trained adults, but only the ashamed mood was significantly more pronounced with the more trained adults. The rest of the mood differences on the training variable were in the predicted direction but none was sufficiently large to be considered significant.

Effects of Training and Potential

It was expected that adults who had high potential and were trained would elicit more positive fantasy behavior in the children than would low potential, untrained adults.

There was a significant multivariate potential by training interaction (see Table 4). Several univariate tests were significant:

Divergence ($F = 29.4492$, $p < .001$), Affect ($F = 19.3236$, $p < .0002$), Elated ($F = 12.8401$, $p < .0015$), Sad ($F = 41.7088$, $p < .0001$), Ashamed ($F = 14.9515$, $p < .0008$) and Fatigued ($F = 9.4632$, $p < .0052$). The means are summarized in Table 5. To clarify further these results, simple effects analyses were performed.

For Elated under the condition of training there were significant differences for potential in the trained group ($F = 8.02$, $p < .01$). For Ashamed there were significant differences for potential again in the trained group ($F = 4.36$, $p < .05$). None of the other simple effects were significant at the .05 level. Thus we have support for the hypothesis that high potential adults who are trained to be involved will elicit significantly more affective activity in the children they play with than those who have low potential and are trained to be involved.

Involvement x Potential x Training Interaction

There was a significant multivariate involvement x potential x training interaction (see Table 4). Accordingly univariate tests were performed. Divergence ($F = 29.4492$, $p < .0001$), concentration ($F = 15.5988$, $p < .0006$) and human references ($F = 12.4106$, $p < .0018$) yielded significant differences. The means of these scales are summarized in Table 6. Simple effects analyses were necessary to clarify further the data. It was decided to examine the effects of involvement and training under each condition of potential. It was expected that training and involvement would affect fantasy behavior more than potential. Unfortunately, in the condition of trained, low involvement there was only one person. That person's score seemed to account for much of the significance. Conclusions therefore must be made very hesitantly. Since the other cells had no more than seven people either, inferences can still be

Table 5. Cell means for the significant potential x training interactions for involvement.

Fantasy variables	Training		Potential	
	high-high	low-high	high-low	low-low
Elated	58.98	99.75	78.31	75.73
Sad	52.01	59.68	78.31	75.73
Ashamed	56.26	61.35	55.05	47.24
Fatigued	43.03	53.62	53.57	45.62

Table 6. Cell means for the significant involvement x training x potential interaction.

		Training		Potential	
		High	Low	High	Low
	Divergence				
Involvement	High	3.868	15.12	4.300	14.85
	Low	1.666	1.815	2.228	1.965
	Concentration				
Involvement	High	160.400	162.200	160.200	138.900
	Low	162.200	155.900	161.800	168.700
	Human references				
Involvement	High	16.27	27.57	4.697	37.87
	Low	4.625	11.07	24.91	5.352

drawn, however tentative. If all the other cells had 50 subjects, for example, no inferences could be made. In the present case, even if the cell with one person had 4 people (to make it more equal to the other cells) there would still have been significant results. This is because the mean of the cell with one person was so different from the others, even if three more people with means in the same range as the other cells were added, the difference would have still probably been significant.

On the divergence scale there were significant differences for training ($F = 98.65$, $p < .01$), involvement ($F = 79.4$, $p < .01$) and training by involvement interaction ($F = 69.82$, $p < .01$) under the high potential condition. Further analysis revealed a significant difference in involvement under the condition of training ($F = 149.072$, $p < .01$). This suggests that if a child shows divergent behavior, he played with an adult who was trained and involved. There were no significant differences in involvement for the untrained subjects. If he is untrained, his potential will not make him more involved. There was no difference for the low potential subjects. If he has no potential, it would not help to train him because he still won't encourage fantasy by being involved.

On the concentration scale, there were significant differences for training ($F = 3.5964$, $p < .05$), involvement ($F = 3.5084$, $p < .05$) and training by involvement interaction ($F = 9.6693$, $p < .01$) under the high potential condition. Further analysis revealed a significant difference in involvement under the condition of training ($F = 12.4133$, $p < .01$). If a person has high potential to begin with, he helped the child concentrate more when he was more involved with the child and when he was trained. Under the condition of low potential there was also a significant training by involvement interaction ($F = 13.3589$, $p < .01$). In this

case it was under the condition of lack of training that there was a significant difference ($F = 5.711$, $p < .01$).

Perhaps when an adult has low potential to begin with, if you train him, the child will concentrate on reality-oriented tasks more than when you do not train him. Since the low potential adults who are untrained are more involved, the child concentrates better on what he is doing. Training increases involvement; but in low potential adults, increased involvement only leads to increases in concentration, whereas training of high potential adults leads to increases in the fantasy activities of the child.

For the human references scale, for high potential adults, there were significant differences for training ($F = 13.5732$, $p < .01$), involvement ($F = 18.9739$, $p < .01$) and training by involvement interaction ($F = 14.7654$, $p < .01$). Further analysis revealed a significant difference for involvement in the trained group ($F = 33.6076$, $p < .01$). Involved, trained adults elicit one of the more important measures of a highly developed, mature fantasy life in the child. It seems that they do this by becoming more involved in the child's fantasy activity. Perhaps the increased human contact in this condition produces more human responses. There were no significant differences for the untrained group or under the low potential condition.

Allowing Self Direction x Training x Potential ANOVA

Table 7 summarizes the direction x training x potential multivariate ANOVA. There was a significant three way interaction. Univariate analysis revealed that this could be accounted for mostly by a highly significant difference on the Divergence scale ($F = 40.4121$, $p < .0001$). Holding potential constant, simple effects tests revealed a significant

Table 7. Multivariate analysis of variance of the mean output of the children based on allowing self direction x training x potential.

Source	df	F
allowing self direction(a)	5	2.9703
training(b)	5	.2213
potential(c)	5	.7187
ab	5	2.1493
ac	5	3.2972
bc	5	1.9325
abc	5	5.3399*
Ss within conditions	20	

p .05*

training ($F = 38.0383$, $p < .01$), allowing self direction ($F = 97.5171$, $p < .01$), and training by allowing self direction interaction ($F = 75.5959$, $p < .01$) under the high potential condition. Further analysis revealed a significant difference allowing self direction effect under the condition of no training ($F = 169.18$, $p < .01$). There were no effects in the trained group or in the low potential interaction. If the adult had high potential and if he was not trained, he allowed the child more leeway to think divergently than if he was trained and had low potential.

Communication of Acceptance x Training x Potential ANOVA

Table 8 summarizes the results of the communication of acceptance x training x potential multivariate ANOVA. This analysis revealed no significant results so no further analysis was undertaken. Apparently, communicating acceptance is not so important in stimulating the child's fantasy life as the delicate balance between being involved in the child's fantasies but at the same time allowing the child to take the lead in developing them.

Analysis of Variance Summary

The great majority of findings support the hypothesis that involvement is the measure of adult sensitivity that is most related to fantasy output in children. In particular, involvement seems to have the most pervasive effect on the child's divergent thought processes. Adults who are trained and are more involved with children will more successfully encourage them to think divergently, express more replicative than wish fulfilling fantasies, thus helping the child express more mature, developmentally-advanced fantasies. Furthermore, adults who have high potential and are trained are more likely to stimulate the child's divergent processes. Therefore, it is not only involvement, but involvement coupled

Table 8. Multivariate analysis of variance of the mean fantasy output of the children based on communication of acceptance x training x potential.

Source	df	F
communication of acceptance(a)	6	1.4739
training(b)	6	1.0588
potential(c)	6	1.0362
ab	6	1.9005
ac	6	.9679
bc	6	.7140
abc	6	.6736
Ss within conditions	20	

p .05*

with allowing self direction that is important. Such adults also elicit more human references in the children's fantasies. This is more support to the hypothesis that they are able to stimulate the child to produce more mature developmentally advanced fantasies. Finally there are several affect and mood scales that were influenced by the interaction of potential and training under the condition of involvement. Adults with high potential and training elicited overall the most affect and mood states.

On the allowing self direction scale, only the three way interaction was significant. If the adult had potential and if he was not trained, he allowed the child more leeway to think divergently.

Some unexpected results were also obtained. Trained, involved adults elicited more ashamed moods than non-trained, uninvolved adults. One would have expected them to have elicited more positive moods but not more negative. It seems that what happened was that they elicited more moods in general, regardless of what sort of mood. It was also surprising that the untrained, low potential adults helped the child concentrate better than the trained, low potential adults. This may be because as they were trained, they increased involvement in reality tasks but then still didn't improve fantasy behavior.

Although many of the hypotheses were unconfirmed in the present study, the means of all the dependent variables were, in general, in the direction predicted by the hypotheses. Several did not reach significance. Communication of Acceptance seemed to have no effect on the child's fantasy behavior.

A general warning, and possible explanation for the trend of the results must be made. In all three scales in the condition of high involvement, allow self direction and acceptance, low potential and low

training and in the condition of low involvement, allowing self direction and acceptance, high potential and high training there was only a single subject. Often this subject's score accounted for most of the variance in the analysis; so all inferences drawn from the present study must remain tentative. Since the other cells had a maximum of only 12 subjects and most were closer to three or four, the problem is not fatal.

Cross-Lagged Panel Correlational Analysis

Each subject was to be taped over four sessions. Because of poor video equipment, this was not always possible. It was not possible to do single session analyses of variance of the data. In order to glean some information about the session by session changes in the child's fantasy behavior, a cross-lagged panel correlational analysis was conducted (Crano, Kenny, Campbell, 1972).

Each subject was rated by two coders on each dependent measure and so received 2 scores for each of the dependent variables for each session. Reliability coefficients were computed to see if there was sufficient agreement between the 2 coders who rated the dependent variables. The reliability was sufficient. Average inter-rater correlations were obtained for each dependent variable and each independent variable for each session and over all sessions. Table 3 summarizes the average inter-rater correlations for each session and for the average of all 4 sessions. As a result of this procedure 3 dependent measures were dropped from the analysis because they had insufficient average correlations to make the analysis meaningful for them. Fluctuating certainty had an average inter-rater correlation of 0.02. Divergent thinking had an average inter-rater correlation of .22. Superego constancy had an average inter-rater correlation of .31.

Once the average inter-rater correlations were sufficiently significant, the cross-lagged panel correlations could be obtained. Six panels were needed to compare sessions 1-2, 1-3, 1-4, 2-3, 2-4, 3-4. After the underlying assumption of stationarity was met and if variable 1 at time 1 with variable 2 at time 2 was correlated more highly than the reverse, this was considered as evidence that variable 1 caused variable 2. The rationale for the cross-lagged panel correlational procedure is found in Crano, Kenny & Campbell (1972). If, in addition, variable 1 at time 1 with variable 2 at time 3 had a higher correlation than the reverse, there was stronger evidence for causation. If the pattern occurred in at least 3 of the 6 panels for the purposes of this study there was a very strong likelihood of causation. The summary of the variables that had higher correlations with other variables than the reverse is presented in Figure 2. If a variable correlated higher in some panels and reversed in others, no causal inferences were drawn. The relationship was not considered stable enough to make any strong causal statements.

A summary of the causal sequences is found in Figure 3. Involvement seems to be causally predominant. In particular, it causes allowing self direction in three of the six panels. Allowing self direction in turn causes communication of acceptance. Apparently, the adult must initially get involved with the child before he will let the child take the lead in the fantasy. The child may not perceive the adult's letting him take the lead as acceptance until later in the sessions.

Allowing self direction seems to predominate in the production of fantasy material. Figure 3 presents a picture of the patterns of causal predominance. In words, allowing self direction causes animal and object references which are theoretically indicators of regression. Animal

Cause Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Communication of acceptance												*								
2. Allowing self-direction	*										*				*		*			
3. Involvement		*																		
4. Transcendence					*								*					*		
5. Distancing						*												*		
6. Concentration																				
7. Angry					*				*				*							
8. Fearful														*						*
9. Elated																				
10. Ashamed								*	*								*			*
11. Contempt					*				*			*								*
12. Identification					*				*				*							
13. Wishes vs. replication						*												*		
14. Object references				*	*		*						*		*					*
15. Animal references						*	*												*	
16. Lively																				
17. Sad																				*
18. Fatigued																				
19. Affect																				
20. Human references																				

Figure 2. Patterns of Causal Interrelations

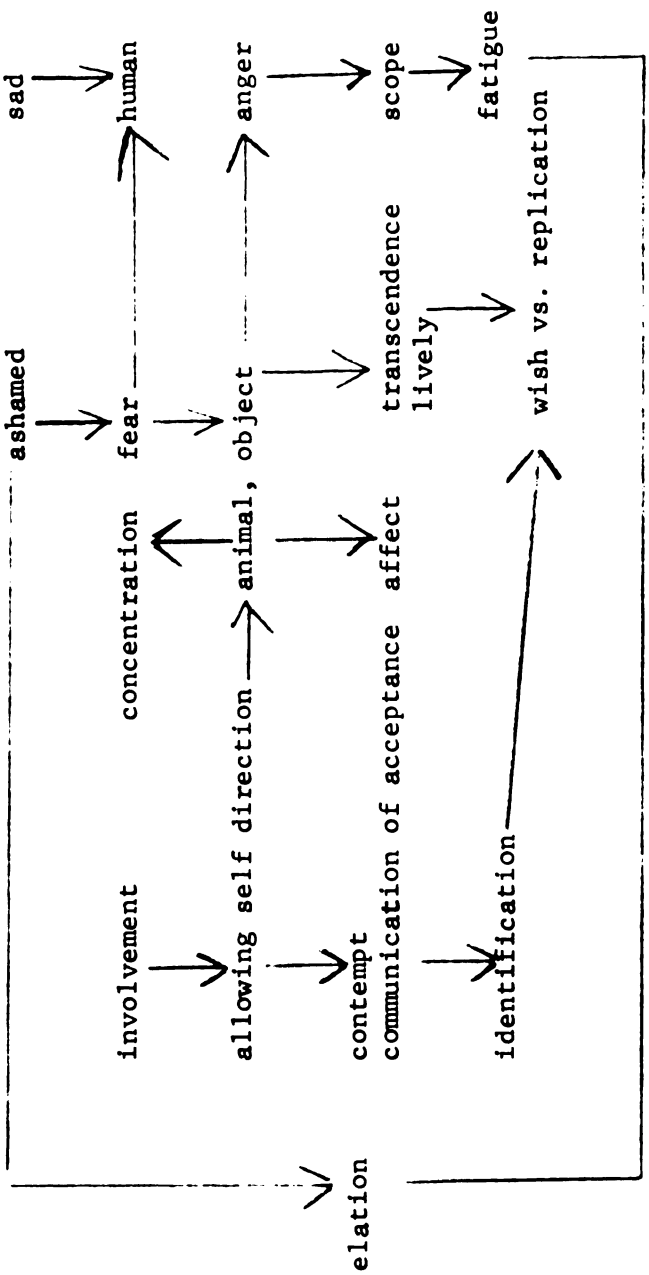

Figure 3. Pattern of causal predominance suggested by CLPC analysis.

references cause increased concentration and expressions of affect. Object references cause transcendent behavior and lively affect which causes replicative fantasies. They also cause anger, which causes distancing. In both cases object references directly cause fantasy behavior and strong affect.

Object references are in turn caused by moods of fear and shame which may indicate the anxiety that may cause the regression. Once the child regresses to the object level he is then able to give more human responses.

When allowing self direction causes communication of acceptance, the child expresses contempt. This causes identification fantasies which cause replication fantasies. The child then expresses fatigue and elation. Elation also follows directly from identification fantasies and communication of acceptance.

To summarize, adult involvement seems to be central in the initial stages of the process. It is followed by allowing the child self direction. This leads to either the child's expressions of fantasy or expressions of positive affect. In both cases the behavior of the adult seems to have a strong effect on the later behavior of the child.

DISCUSSION

Qualifications of Results

Collection of Data. Some of the children did not complete the full fifteen sessions and some of the tapes of the children who did complete all sessions were of such poor audio and/or visual quality that they were not usable. There were three independent variables. In two of the cells for the analysis of variance (specifically in the conditions of high involvement, allowing self direction and communication of acceptance, low potential, untrained and low involvement, allowing self direction and communication of acceptance, high potential, trained) there was only one adult S in the first session. In the second session these cells contained no adult Ss. The original plan of a separate analysis of variance for each cell had to be abandoned in favor of a more global, overall analysis of all four cells. Due to the limited number of subjects there were no attempts to separate the groups by sex. The influence of the sex variable on adult-child behavior was unexplored.

Methodological Considerations

The adults who played with the children were not highly trained, experienced, sensitive "therapists." Rather they were relatively inexperienced college undergraduates. The children they played with were clinic-referred. They had similar problems to most children referred to child guidance clinics: school problems, aggressive behavior, inability

to relate to peers, etc. The undergraduates played with them for only 15 sessions of only half an hour each. It is highly likely that these children in general mistrust adults; and an extended "acquaintance process," [often up to 2 years (Freud, 1946)] is needed before they will feel trusting and trusted enough to show their fantasies. She spoke of three problems in working with children: lack of 1) insight into the problem, 2) a voluntary decision to seek help, and 3) the will to get better. She cited the need for a preparatory phase where the adult must build up trust. These initial sessions are often "anxiety laden" with the child "feeling out" the adult to see whether he will be able to accept and handle his feelings, conflicts, needs, and wishes. As a result, at least initially, the adult's behavior toward the child is much more important than his attitudes. One could expect the more behaviorally oriented variable of adult involvement to have the most impact on the child during this "testing" phase of the relationship. Only gradually, as the child sees how the adult behaves, will the child believe him when he allows the child to take the lead in the fantasies (allowing self direction). For the adult's communication of acceptance to have an impact, it is possible that the relationship must be well established and the subtle aspects of the adult's attitudes, not just more easily observed behavior, must be recognized and perceived as important to the child.

Problem of Generalization

Perhaps the most serious limitation of the present study is that there was no attempt to examine the effects of the child's play session activities on the rest of his life activities. There was no attempt in the present study to use available data on changes in parents' perceptions, school behavior or peer interactions. There was no use of standardized intelligence tests, widely used projective tests or conventional

tests of creativity to see whether the child's behavior changes had any external validation.

Coding Problems

The tapes were extremely hard to code because of their poor audio and/or visual quality. They were to be rated every 30 seconds. This put a premium on the coder's ability to make a large number of consistent, accurate judgments. The intervals had to be timed very accurately. Sometimes the coders would differ in the total number of rating intervals for the same tape.

Some of the categories were extremely hard to score. The mood scales depended a great deal on facial cues. Often the child's back was to the camera. The presence of transcendent behavior and how many transcendent elements in the fantasies were hard to reach exact agreement on. The more ambiguous variables like superego constancy and fluctuating certainly required inferences that the coders were sometimes unable to make.

Summary

Because of the loss of data, due mainly to the technical difficulties of using video tape, the limitations of the procedure which was not originally designed to measure fantasy behavior per se, the problem of lack of measures of generalization to the child's real life behavior and the difficulty of coding the tapes due to severe logistics problems, all the results must be presented tentatively and interpreted with much caution. There was, however, enough data of sufficient significance and interest to discuss.

Summary of Significant Findings

Gondor (1966) said that to understand a child "we have to rely on communications which are in part more subtle and in part more direct than those of adults. In fact, we have to sensitize ourselves to a very wide scale of expressing, from overt acting-out in play and reality to the slightest nuances of nonverbal communication." The adult has to "listen with the third ear" as Reik (1948) said, to stimuli of a range far wider than those used in ordinary life. The adult must understand, accept, and, if he wishes, converse in the language of the child's fantasy. He must be able to accept a role in the "make-believe game," take this role seriously and act it out the way the child expects him to. This is the way to make the child feel really understood.

Singer (personal communication) expressed the belief that there might still have to be some degree of actual modeling of fantasy activities or make-believe on the part of the adult for the child to pick up. He found (1973) that children who watched television with a parent were more likely to model the TV characters behavior than if they watched alone. He concluded that some element of modeling, or being-with, was necessary for the child to develop his fantasy life.

In a series of studies, Feitelson (1972, 1973) demonstrated that modeling is an essential prerequisite for the emergence of thematic play. She further demonstrated that children with a high level of thematic play performed better on tests of creativity. Salty & Johnson (1974) found that "culturally deprived" children could be trained to think in terms of internal (introspective) rather than external (concrete) representations of the world by training them in fantasy play.

The results of the ANOVA indicated that involvement in the child's activity is most related to the child's fantasy output. This is consistent with Gondor's notion of conversing in the language of the child's fantasy and Singer's notion of modeling. If the child sees that an adult can be seriously involved in fantasy activity, he is likely to pick this up as something that is desirable. It is also important for the adult to let the child take the lead in the fantasy behavior. He must remain one step ahead of the child in understanding and one step behind the child in behavior. Communication of acceptance of the child, unrelated to acceptance of the fantasy, per se, does not seem to have much of an effect on the child's fantasy life, at least within the first 15 play encounters. Perhaps if the scale was more specific to communication of acceptance of fantasy activities, this variable could have yielded significant results.

Guilford (1967) proposed that we regard behavior as convergent and divergent. Divergent processes are those in which each individual is capable of giving a variety of novel responses which may or may not overlap with each other. These reactions form a basis for what ultimately becomes creative behavior. Hudson (1966) presented evidence that school boys who are more strongly oriented toward divergent processes are more likely to move toward artistic and literary types of interest and success. The present study offered considerable evidence for the notion that if the adult is involved with the child, this will increase his tendency toward divergent production. If the child is modeling the adult's behavior or if the adult's involvement is just reinforcing the fantasy, or both, there is an important clue as to how the adult may be able to develop creativity in the child.

The presence of more replicative than wish fulfillment fantasies in children played with by sensitive adults was predicted by Levin and Wardwell (1962). In their extensive review of the doll play literature, they postulated a developmental advance in the increase in replicative fantasies. It is possible that involvement with the adult may lead to either modeling or reinforcement of the more mature fantasy.

Gondor (1964) stressed the importance of human references in the fantasy as an indication of maturity on the child's part just as it is on a Rorschach. The fact that adults in the present study who were involved with the children elicited more human responses, tends to support the notion that in this way they are helping the child's fantasy life to mature.

Freyburg (1973) related the ability to concentrate for long periods of time to imaginativeness. Involved adults in the present study did have the children they played with concentrate for longer periods of time. It is tantalizing to think that they were behaviorally reinforcing the development of imaginativeness.

Klinger (1971) hypothesized that children engaged in fantasy play should show more positive affects and moods. The present study demonstrated that adults who were more involved with the children elicited more affects of all kinds, positive and negative. It is possible that what they were reinforcing was expression of affect rather than positive or negative. It is also possible that the more involved the child was, the more free he felt to express negative emotions.

In summary, it is clear from the present study that involvement on the part of the adult was responsible for more divergent processes, more

mature, developmentally advanced fantasies and greater expression of mood and affect. It is possible to explain these processes in some combination of modeling reinforcement of the desired behavior and training to become more involved in the child's play.

Training has the effect of producing more involvement on the adult's part. If the adult had low potential to begin with, this training seemed to produce an increase in concentration on the child's part. This was not necessarily with regard to fantasy behavior. An increase in playing board games is not necessarily a positive step. Only when the adults had high potential to begin with did the trained adults elicit more divergent thinking. It may be that to train anyone to become more involved is possible, but to train an adult to attend to the child's fantasy life he must have some potential to begin with.

Discussion of Cross-Lagged Panel Results

Gondor (1964) described the need for the adult to "be conversant with" and understand the fantasy activity of the child. As Gould (1974) summarized, this is essential for the child to develop a healthy fantasy life. The basic importance of the adult's early and continuing involvement with the child was central to the results of this study. It seemed to be the beginning link in a chain of actions that may have led to the expressive fantasy behavior in the child.

The adults in the present study were trained by Stollak, et al. (in press) to be involved with the children but still to let them take the lead in play activity. This client-centered orientation may have made the child anxious at first. He had been used to adults taking the lead when he was with them. He could become anxious, confused and even angry when the

adult allowed him to be in charge. The cross lag panel analysis revealed that the adults typically became involved with the children as an antecedent to allowing them self direction. This was a training effect. The adult's involvement preceded allowing self direction or communication of acceptance. A different causal sequence started depending on which sensitivity variable followed involvement.

Allowing the child self direction may have been a stress situation for the child as he may have been made anxious by instruction to play anything he chose. Gould (1972) pointed out that dependency needs and regression may occur in stress situations. The affect experienced, according to Gould, is loneliness or a driving need for "reunion" with the adult where passivity may have been experienced as disapproval. The child seeks the adult approval in a regressive way and feels all the more dependent on the adult for direction and control. This may account for the child's increase in animal and object references, a possible indicator of dependency needs having been aroused. Affectively, the child experienced anger which may have covered what Gould called loneliness. The child attempted to please the adult so that the adult would then take control. When the child's attempts to please failed, he may have felt anger. He became more deeply involved in his fantasy as he attempted to put distance between himself and his negative feelings towards the adult who didn't tell him what to do by increasing the scope of his fantasy. This led to fatigue and then elation. This seems to be much like catharsis: expression of negative feelings leading to increased scope of fantasy leading to fatigue, leading to expression of positive feeling.

Gould (1972) suggested another possible chain of causation. Some children have the capacity for "controlled" regression, much like Kris' (1952) "regression in the service of the ego." They have the capacity for temporary utilization of communication channels with more primary generally preconscious modes of thought and feeling, for the sake of creative outcome.

In the present study some children were able to start with many object references, a possible indicator of regression. Shame and fear preceded these object references. The children were perhaps ashamed that they didn't know what to do when the adult gave them the lead. Those that could get in touch with loneliness expressed sadness when they produced object responses. They were then able to produce more mature human references. Others had to go through the intermediate fantasy stages. They proceeded from object references to transcendence with the accompanying mood of liveliness. They were then able to produce replication fantasies which were followed by the possible cathartic moods of fatigue and then elation.

When the child's being allowed to take the lead in the fantasy led to communication of acceptance a whole different chain of causation came into being. The adult's acceptance of the child's behavior initially produced contempt in the child. Perhaps he saw this as an adult who could not, rather than would not take the lead. When the adult accepted even this contempt the child did not take flight into reality, but as Gould (1972) predicted, became more involved in his fantasy. His defenses turned from a passive waiting for the adult to take the lead, to an aggressive assertiveness. He expressed fantasies of identification with the aggressor rather than the victim. These fantasies lead directly to the

moods of elation and replication fantasies. So when all three of the elements of adult sensitivity were present (involvement, allowing self direction, communication of acceptance) the child moved most directly to the desired outcomes of elation (possible catharsis) and replication fantasies.

To summarize, Levin and Wardwell (1962) found that it was a developmental advance of considerable proportions for the child to move from wish fulfilling to replicative fantasies. The cross lagged panel analysis of the present data provided evidence for three possible mechanisms to explain this advance. The child may be able to engage in "regression in the service of the ego" as a result of positive interactions with adults. Alternatively, he may be moved to anger which leads to distancing which leads to fatigue which leads to elation. Finally, if all three elements of adult sensitivity are present, he may move directly to expressions of negative identification and then replicative fantasies, or directly to elation. Elation seems to be the mood state that accompanies the replicative fantasies. Accordingly, if replication fantasies and/or elation are present the child is likely to be engaged in relatively mature, developmentally advanced fantasies.

Implications of Results for Understanding the Process of Child Psychotherapy

For many years child psychotherapists have stressed the importance of understanding the fantasy communications of children. Unfortunately, they always expressed this notion in such global terms that the beginning therapist attributed what experienced therapists do to magic. Nowhere in all the literature in child psychotherapy is there instruction in how to learn to understand the child's fantasy life. The Interpretation of

Dreams by Freud provided such a manual for adult psychotherapy. In the absence of such a tour de force in the child area, the importance of fantasy has been more or less neglected or relegated to the position of being interesting but too difficult to operationalize and research.

The present study was conceived firmly in the tradition of those who believe psychotherapy is not magic. If enough care and patience is taken, the variables that comprise the psychotherapeutic transaction can be delineated, operationalized and studied. The literature on use of fantasy in psychotherapy was searched to find some guidelines as to what part of the child's fantasy experience it was important for the psychotherapist to attend to.

The psychoanalysts point to the importance of fantasy to understand the child's underlying personality dynamics. The client-centered approach stresses the importance of creating the proper atmosphere for the child to develop his own sense of mastery and competence. The present study attempted to find the common core in these seemingly divergent points of view. A unified theory of fantasy in psychotherapy needs elements of both approaches.

When the child is referred for psychotherapy he is usually fraught with anxiety. He knows he is going to see a doctor. He associates this with pain. When he comes to see this doctor, however, all the doctor wants him to do is play. What's more, instead of the doctor's usual collection of diabolical looking instruments and needles, this doctor's office is filled with toys, including some of the child's favorites. The child is off guard, doesn't know what to expect, becomes anxious. The therapist takes the initiative and tells him he can play with anything he wants. The child is baffled. What kind of doctor is this? There must

be a trick. But then his eyes wander to the cabinet where a set of shiny new trains meet his eyes. He is sure he may not touch them. But no, the doctor comments that he looks as if he would like to play with the trains and it is OK. The child senses this person may be all right. He's different from other adults. Instead of saying don't do this, don't do that, he actually knows what I want to do before I do. The child rushes to the trains. He takes them down, still careful not to break them. The doctor nods approval. The child starts cautiously pulling the train. The doctor comments on his fondness for trains. The child gains confidence. Soon the train is racing around, smashing into walls. Instead of punishment, the doctor is helping by providing sound effects "Bam, smash, pow... it really crashed that time." The child is secretly pleased that he can be as aggressive as he feels like and isn't punished for it. All too soon an hour has passed and the doctor says it's time to stop. He tells the child he can come back next week if he wants. The child looks confused. The doctor explains that he'd like to see him once a week for an hour each week at that time in the playroom and sometimes they'll play and sometimes they'll talk but every week it will be his time to do what he wants. The child greets his mother in the waiting room with a puzzled but happy grin. The therapist was aware of the child's anxiety. He encouraged him to do what he wanted and then actually got involved in the child's fantasy play. The important element of the session was that unlike other adults he got involved but let the child take the lead. He accepted the child's random aggression. He didn't tell him to be careful not to break the trains. In short, he understood the child well enough to see that he was anxious. He became involved, allowed the child the lead and accepted the child's feelings. He created the atmosphere that would

persist in the session over many long, hard weeks as the child groped for mastery of his impulse-ridden and repressed life.

More specifically, by encouraging fantasy expression, the child's natural medium for expression, the adult expressed a willingness to meet the child on his own terms. He fostered and nurtured a sense of competency in the child by allowing him to decide what he wanted to do. He patiently encouraged mastery by not correcting mistakes but accepting any efforts the child made to communicate. Finally he expressed total acceptance of the child by actually becoming involved in the fantasy itself.

It seems that the rule for psychotherapists is that they must be involved in the child's play. They must let the child lead but they must follow closely. They must accept what he does both verbally and nonverbally. Fantasy communication must be meaningful to him. He must resist the temptation to interpret everything but he must follow the dynamic flow of the fantasy material. By being sensitive in the sense outlined in the present study the adult will enhance his functioning as a psychotherapeutic agent.

Training

Given the specificity of the roles suggested, it should be possible to train paraprofessionals to fill the role of sensitive adults. As long as proper adult behaviors are specified there's no reason why a less formally trained adult can't fulfill a therapeutic role (Stollak, et al. (in press)).

Implications for the Schools

For many years schools have ignored the child's affective development in favor of enhancing cognitive development. Jones (1968) pointed

out that these goals may not be mutually exclusive. A comprehensive theory of instruction should seek to prescribe not only optimal levels of intellectual uncertainty, risk and relevance, but also optimal levels of emotional involvement and personal curiosity: ("We learn best when we care most"(p.125)). Children must imagine reality the better to test it. They must be instructed, not just permitted, to control, express and use the emotions and images which have been stimulated by the lessons. Emoting generates interest and involvement in otherwise boring subjects. Nevertheless, for most teachers fantasy is to be left out of the classroom. They associate fantasy either with excessive daydreaming or disruptive, aggressive acting out. When the clinician says "emotions" and "fantasy" the educator hears "pathology and sickness". It is a shame that educators who are so skilled at fostering cognitive development have virtually ignored one of the most powerful potential tools they have had available to foster cognitive growth. Education teaches children in the language of adults. In effect it pulls the children up to the adults' level. Attention to the child's fantasy behavior assumes that it is better to start where the child is at and to help him develop by himself with subtle pushes by the teacher in the right direction.

The role of the schools is definitely conceived to foster the child's cognitive development. Yet, if the adult is able to converse in the language of the child he is much more likely to be able to reach and teach him. Every good teacher instinctively understands the value of a story, free playtime, musical or artistic activities, etc. to bring across a point. What few good teachers realize is that these techniques help the child's mind to expand and he is able to absorb and retain most of the lesson. How many teachers have not experienced their students' remembering

an offhand story or joke long after the content of a well prepared lesson has been forgotten. The investigator, for example, vividly recalls to this day when he was in elementary school. He was just beginning to become interested in girls. The lesson was on the Louisiana Purchase. There was a filmstrip slide on the screen of the United States before the purchase and of the surrounding area,which was labelled "unexplored territory." As the teacher was lecturing on the details of the purchase she, who was particularly well endowed, wandered in front of the screen. "Unexplored territory" shone clearly across her chest as she stood there. This lesson in sex education was not lost on any of the male students. This lesson on the feminine mystique remains with the investigator to this day. If educators attend to the fantasy lives of their students, they will add another element rather than pervert the difficult task of teaching cognitive skills (Jones, 1968). According to Huxley (1967) "In most children...this world of fantasy is astonishingly vivid. To them the world presented to their consciousness by their story telling, image-making fantasy is as real as, sometimes more real than, the given world of sense impressions and the projected world of words and explanatory concepts" (p. 56).

Implications for Parent-Child Interaction

The clearest implication for parent child relationships is that it is absolutely essential that parents be actively involved in their children's fantasy activities. When the child is born, he needs the warmth and support of his mother. He needs provision for his basic drives of hunger, thirst, etc. In order to develop a basic sense of self esteem he needs to have had a good emotional foundation of support laid by his parents. As the child grows, he needs to tolerate the delay between his basic

drives and provision for them. In infancy, this could be a fantasy of the bottle, to bridge the gap between when he gets hungry and when he gets fed. As he grows older it could be the fantasy of a toy before his parents buy it for him. It later could be the fantasy of what it will be like when he grows up.

Fantasy can serve many purposes for the child. The sensitive adult can find out much about what a child's world is like by listening to and understanding the child's fantasy communications. It is true that the adult serves as a model for the child but we must be more specific than just saying that. We must specify what kind of model the adult is. What specific behaviors does the child model? What can the adult do to have the child model his fantasy behavior rather than other behaviors?

The involved adult is the adult who truly takes pleasure in his child's fantasy life. Parents who find their child bright and alert support his fantasy life. Parents must take genuine pleasure in "being with" and playing with their children. They have to like to play make believe games and tell made up stories. They have to like active, cooperative games. They have to like to build with blocks or play with dolls themselves. They cannot be the type of parents who take pleasure only in playing competitive board games where they can always win. The rationale that the child has to learn that the world is hard is not a good one for fostering a healthy fantasy life. Parents have to be willing to interrupt their own activities to pay attention to their children. They have to look forward to reading and telling stories at bedtime. They must be able to express both verbally and nonverbally how much they appreciate their children for being themselves. They must take pleasure in seeing their children actively fantasizing. If they see this as a waste of time, they

are assuring that this part of the child's experience will be hidden more and more from their view.

To allow the child to find his own direction the parents must have the humility to realize that they do not know everything. They must have the sense to know that one person cannot control another person's destiny. They must have respect for the integrity of another human being so that they will not want to impose their will on their children. They must have the faith to believe that their children are each unique human beings. They each have the capacity to develop an inner sense of self-esteem, mastery and competence. This is not to imply that the adult must be totally permissive and let the child do whatever his impulses tell him to. The adult has to be with the child but still let the child take the lead. Adults must have the courage and patience to let their children make mistakes and learn from them. They must encourage their children to engage in independent, risk taking behavior. They must be sure to acknowledge when the child does well. They must support the child even when he does wrong. They must make the clear distinction between the child's negative actions and the child's being negative. They must support the child in difficult tasks by reflecting his frustration. They must not do the task for the child. They must be willing to help but only when the child asks. When he does a good job they must reflect how good that must make him feel. They must not make him feel that he did it for them. The delicate balance between being involved, and yet letting the child find his way is an art as well as hard work. Being submissive does not help a child know what he wants and possibly results in a child's thinking his parents do not care about him. By attending to and encouraging the child to express his impulses in fantasy, the adult is helping him to master

and control them for his own purposes. He is laying the foundation for a future creative adult life.

To communicate acceptance to the child is a way of life. It grows out of a tolerance and respect for the myriad varieties of human experience. Adults must have a sufficient awareness of their own inner lives and motives to reflect and accept those in their children. They must be people who take more pleasure in seeing their children develop in their own unique image than in seeing their children become carbon copies of themselves. They must be able to tolerate the stresses and strains of a human being growing up. They have to accept excesses in their child's fantasy world. As long as the child keeps his impulses in fantasy activity, adults must encourage their expression. Rather than punish negative impulses expressed in fantasy, adults must help their children distinguish between fantasy and reality. Aggressive fantasy must be encouraged. Hostile acting out behavior will be likely to be reduced in this way.

To summarize, if the adult is genuinely interested in the child's sense of self esteem, mastery and competence, he will encourage the child's fantasy life. If he can accept the fact that the child cannot be like his ideal self but must develop his own self, if he takes pleasure and satisfaction in seeing that another person is growing and finding himself, if he himself has a rich and varied fantasy life, he is probably doing naturally the things recommended in this section. If he is like most of us in that he is lacking in some of these areas, he must reach back into his own fantasy world and see where he can change.

Discussion of Negative Findings

There are at least three possible reasons for the negative findings that were obtained. There were many problems with the data collection process. There were also some problems with the data analysis. It is possible that some of the theory on which some of the hypotheses are based is incorrect. The first two explanations which we considered to be technical difficulties will be discussed first. The more substantive theoretical questions will then be addressed.

The analysis of variance was relatively straightforward. The groups were divided into "sensitive" and "insensitive" by a median split. Because of the small sample size, all subjects in each group were used in the analysis. It would have been preferable to use subjects in the upper and lower quartiles, but there were too few subjects to do this. That comparison might have resulted in sharper differences between the two groups and more significant results. The other problem with the sample size was that session by session analyses of variance were impossible to obtain. Effects that were present in one session and not another were not able to be examined.

Technical Problems in Collecting Data

There were a great number of problems in collecting the original data. The audio and video equipment were poor. Each session was recorded by different people. The cameramen had little technical experience with the equipment. Sometimes the camera was not on the significant interaction. Sometimes it was out of focus. Sometimes the lighting was too poor to get a sharp picture. Sometimes the adult or child spoke too softly to be heard. Sometimes they spoke too loud and their voices were distorted.

Sometimes they had their backs to the camera. Sometimes the child hid from the camera's view. The child could see the camera and cameraman through the ordinary glass panel that separated the camera from the playroom. It is not possible to assess the impact of this fact on the sessions as after a while the camera seemed to be ignored. Still, there was always a significant third presence in all of the sessions. The camera might have inhibited the adult or child in some subtle way. It clearly would have been preferable to have had the camera hidden.

Technical Problems in Analyzing Data

Once the data was collected there were still many technical problems. Each child had a different adult playing with him. Each adult was in turn supervised by a different graduate student. The sessions occurred at different times. Some of the play sessions occurred over 15 consecutive weeks. Some were considerably longer in total time because of missed sessions, cancelled sessions and vacations. In fact, the second part of the sample was obtained two years after the first sample. Even though the sensitivity scores were coded by the same coders, they worked on the two samples at different times. No new reliability coefficient was obtained for the second sample. It was assumed that the reliability was the same in order to increase the sample size. This is not necessarily a reasonable assumption to make. The originally used "agreement with expert" used to check the reliability of the sensitivity scales is not the best type of reliability. It would have been better to use inter-coder reliabilities. These were not available. The reliabilities of the fantasy measures were obtained by inter-coder reliability, but there were problems with them too. Ten coders were used. They were split into two teams. Each team rated ten variables.

This can be a problem if one person is systematically different from the others. This would produce an error in many of the correlations. It would have been better to have had two sets of coders rate all the tapes on all variables. This was impossible because of time constraints.

Problems of Interpretation

The analysis of variance caused several unique problems of interpretation. There were three independent variables to be considered: 1) sensitivity, 2) training, and 3) potential. Sensitivity was in turn composed of three separate scales: 1) involvement, 2) allowing self direction, and 3) communication of acceptance. Three separate analyses of variance were obtained, one for each sensitivity scale.

There were no main effects for involvement or potential. Unless the subjects were trained they may have been involved but not in a way to enhance the child's fantasy life. There may have been a main effect for potential, for instance, in the first session;but there was insufficient data to study this. There were main effects for training but only on a few of the fantasy scales. This is probably because no matter how involved the adult is with the child it takes longer than fifteen sessions for the richness of the child's fantasy life to unfold. There were trends in this direction in the scales that were not significant, e.g., it is likely that more sessions were needed for the trends to develop and for significant differences to be observed.

There was only a three-way interaction effect on the allowing self direction scale. Most of this could be explained by the divergence scale. Apparently in the first 15 sessions only divergence is influenced by the adult encouraging the child to take the lead. The relationship is still

in its trust building stage. It is likely that the adult has not yet created the proper atmosphere for the child's fantasy life to emerge. There were trends in this direction, but again no significant results.

Use of the communication of acceptance scale yielded no significant results. This variable measured not only the adult's behavior toward the child but also the adult's attitude or stance towards the child. It is a more complex type of interaction. Its influence might therefore take longest of all to affect child behavior. It would be interesting if it began to be more important as the number of sessions increased. It would also be interesting if some significance was achieved in the 15th session, but unfortunately this comparison was unavailable.

Suggestions for Future Research

There are several basic areas where the procedures used in this study could be improved that might yield more valid results. There are enough findings to encourage more research in this area. Some possible improvements will be outlined. Some suggestions for future research will be presented.

Measurement procedures must be improved. The measurement scales of fantasy behavior must be refined, redefined and streamlined so that they will become easier to use without losing meaning. As they now stand they are cumbersome and time consuming to use. If the 20 fantasy variables could be reduced to two or three meaningful factors, it would make their use much easier.

The present study had 10 direct measures of fantasy, 8 mood scales, and an affect and a concentration scale. Transcendence, divergence, and

scope of fantasy might possibly be a unitary factor. Wish fulfillment vs. replication and number of human, animal and object references seem to be getting at the same variable, the developmental level of the child's fantasy life. Fluctuating certainty, superego constancy, and identification all seem to be attempts to explore the child's aggressiveness in fantasy. None of the scales occurred with enough frequency to be very meaningful in this limited study of 15 sessions. Perhaps they could be combined in a single aggressiveness in fantasy scale. The other possibility is that given more time they would have developed sufficiently for more meaningful comparisons to be made. With the mood scales the difference between the groups was in the direction of presence or absence of mood states rather than positive or negative moods. Perhaps the mood and affect scale could be combined to an expression of affective experience scale.

The rating procedures must be improved. A 30 second overlay tone could be recorded onto the tapes so that one could be assured that the tapes were rated accurately and consistently. The quality of the tapes must be improved. It is particularly important, given the limitations of the mood scale (need the child to face the camera), that an experienced technician film the sessions.

Sources of external validation that are available must be used. Conventional intelligence tests, projective tests, tests of creativity, as well as parent, teacher, and peer ratings must supplement self and undergraduate report and observation of trained coders.

One might predict that children who score higher on the fantasy scales would have higher scores on conventional tests of creativity. There may be gross differences in quantity of fantasy output among

intelligence levels. If intelligence is controlled for, the differences in children will probably be on the divergent-convergent dimension. This would reflect the different environments the children live in and what type of behavior they are reinforced for.

In light of the differences in divergent thinking in the children in the present study, one might expect parents, teachers and peers to pick this up. More specifically, one might expect parents of children who show increases in divergent thinking over the 15 sessions to report fewer problems with their children on the problem check list. Teachers might show a greater increase in interpersonal skills as measured on the Bessel-Palomeres (1968) forms. Peers might rate these children as different than they were or easier to get along with.

Data on the adult-child interaction must be collected over a longer time span. A year to two years would be a minimum acceptable time frame. It is probable that the richness of a child's fantasy life can be observed and studied in sufficient depth only if it is given enough time to unfold. Children can be taught to fantasize in a relatively short period of time (Feitelson, 1973) but whether the fantasy they are taught generalizes to outside experiences needs to be explored. Probably without an extended relationship no generalization will occur.

It would be extremely interesting to study the ways in which experienced therapists, teachers and parents release and stimulate children's fantasy activities and compare them with each other and the undergraduates. If we hope to be able eventually to specify fully the ways in which an adult can foster a child's fantasy and creativity, we must examine the behavior of all adults that have a potential influence on the child.

Future studies must control for sex differences to see whether males or females have differing influences on the fantasy lives of the children they interact with.

Long term follow-ups of the effects of the play sessions on future behavior must be collected. Educational performance, evidence of creative activities as adults, interpersonal functioning and future expression of fantasy all need to be examined.

Finally, if fantasy behavior in children is as important as dreams are to adults, we are sorely in need of information about the internal experience of fantasy. We need more information about the latent content of fantasy. We need to know what caused expression of a particular fantasy and not another. We need to know with more detail and specificity what adult behaviors foster the development of a rich fantasy life and what behaviors stifle it. We need to examine the relatively unexplored area of what effect the child's peers have on his fantasy expression. We need to delineate just how the fantasy communications of a child in psychotherapy facilitate his working through his problems. We need to make more explicit the relationship between fantasy and creativity. We need to prove that fantasy is indeed necessary for positive mental health, and the cognitive emotional and social development of children.

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APPENDICES

Table A. Scales used to rate independent variables.

The scales range range from a high rating of one to a low rating of five. Each point on the scale is followed by typical responses obtained from codings of the direct observations of adult and child.

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1. Communication of Acceptance

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1. Verbal Recognition and Acceptance of Feelings: Examples: You're proud of how you fixed that; That makes you feel good; That made you angry; You feel better already; You're enjoying that; You really like smashing that.

2. Verbal Recognition and Acceptance of Behavior Only: Examples: You got it that time; You really stabbed him; You're getting a workout; Bam, Bop, etc.; You're hitting the mother doll.

3. Social Conversation or No Conversation: Examples: I'm not so good at building toys; Mary's been away most of the summer; Mothers aren't very good at that; These are nice toys.

4. Slight or Moderate Verbal Criticism Stated or Strongly Implied: Examples: That's cheating; The head you made is too big; You'll ruin the floor; That's not fair; You'll have to be more careful; Watch what you're doing; No, not that way.

5. Verbal Criticism; Argumentative, "Preaching," Openly Rejecting Feelings or Behavior, Abusive Language: Examples: It's not nice to feel that way; You're nasty; I'm talking to a dope; You're not so hot yourself; You're a fresh kid; You see, I told you to do it the other way.

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2. Allowing the Child Self-Direction

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1. Shows Willingness to Follow Child's Lead (No indication to the contrary: i.e., there need be no verbal comment; behavior compliant with the child's directions or lead is sufficient). Examples: You want me to do it for you; I'm supposed to pick them up (or simply moving to do so); You'd like me to play catch with you (or simply doing so at the child's request).

2. Child Has Option for Lead-Taking (Choice genuinely left to the child but mitigated by direct or indirect suggestions; gives unsolicited praise; volunteers information; asks for information). Examples: What shall we do?; What would you like me to make?; You did that right; Shall we pretend it (the phone) rings?; It's under the table; You can shoot this if you want; Good ("Good" reinforces a certain type of activity and therefore represents a degree of control).

3. Takes Lead Without Giving Child an Option. Unsolicited instruction on how to do or accomplish something; "teaching," praise accompanying a suggestion; questions with intent to guide the child. Examples: Play with what you have; You have to keep practicing; Maybe the best way is to take the crayons out of the box; Take your time and aim it; See if you can do it again just like that; Are you sure that's the way it goes?

Table A (Continued)

4. Directs or Instructs Child to do Something. Initiating new activity when there has been no previous sign of inertia and/or resistance shown by the child. Examples: Put the tinker toy away first; Why don't you paint something; Let's play with clay; You'd better put him back together; Don't squeeze water in there.

5. Persuades, Cajoles, Demands, Pushes, Interrupts, Interferes in Child's Activity, Insists on New Activity. Resistance by the child is implicit, or there is inertia on the part of the child which the parent is seeking to overcome. Examples: You've got to play with something else now; You'd better give me one; You can't do that anymore; I told you not to turn out the lights; That's enough of that; No, take this one.

3. Involvement

1. Fully Observant of Child's Behavior, Adult Gives No Indication of Being Unaware of the Child's Behavior. More attention is given to the child than to other stimuli, such as the objects the child is using. (Such attention is not necessarily sympathetic or constructive.) The parent may be involved in a joint activity; e.g., role playing, games. He participates in an active way physically as well as verbally when it is appropriate.

2. High Level of Attention. Although not involved in anything other than that which also involves the child, the adult's concentration here is almost exclusively on activities per se rather than child's behavior. Joint activities, such as card playing and dart shooting, lend themselves to "2" scores when the parent is keenly interested in the game itself (e.g., the cards that turn up), without paying attention to the child's reactions and behaviors.

3. Marginal Attention: The Adult is Involved in His Own Independent Activity to a Degree that Interferes Somewhat with Attention to Child. No joint activity. Adult is preoccupied with own activities to the extent that he is not always providing company; e.g., briefly primping in a mirror, briefly attending to own attire, inspecting nails. The adult may occasionally remark spontaneously on the child's activity.

4. Partially Withdrawn, or Preoccupied. Adult may infrequently observe child's activity, but doesn't comment spontaneously. Adult may be so involved in his own role (e.g., in independent play) that he fails to attend to the child's apparent needs. He responds promptly, however, when alerted by the child.

5. Completely preoccupied, or Self-Involved, or Shut-Off. Here the child is ignored and must repeat or prompt to get a response from the adult. The adult is completely absorbed with an independent activity or with his own thoughts for prolonged periods, or engaged in prolonged self-grooming; seemingly unaware and uninterested in child's behavior.

Table B. Cell frequencies for analysis of variance.

Group		High Potential		Low Potential	
		trained	untrained	trained	untrained
Communication of Acceptance	High	7	3	7	1
	Low	1	4	4	5
Allowing Self Direction	High	7	1	6	1
	Low	1	7	4	5
Involvement	High	7	3	7	1
	Low	1	4	4	5