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The Development of Imagination: The Relationship Between College Students' Retrospective Reports of Parent-Child Interactions and Imaginal Activity in Everyday Life

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THE DEVELOPMENT OF IMAGINATION:
THE RELATIONSHIP BETWEEN COLLEGE STUDENTS' RETROSPECTIVE
REPORTS OF PARENT-CHILD INTERACTIONS AND
IMAGINAL ACTIVITY IN EVERYDAY LIFE

BY

MARTIN W. HAM

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
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IN
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UNIVERSITY OF RHODE ISLAND

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ABSTRACT

The objectives were two-fold: 1) to determine the extent to which current models of parent-child interactions and imaginal activity are an artifact of the level of data analyzed, and 2) to determine to what extent and in what manner interactions with both parents are related to the imaginal activity of young adults. It was anticipated that the study would help illuminate the antecedent conditions that are associated with various patterns of imagining.

The subjects were 229 college students who participated in two group testing sessions. In the first session, subjects completed the 344-item Imaginal Processes Inventory developed by Singer and Antrobus (1970). During the second session, subjects were asked to retrospectively rate their parents' behavior toward them on Schaefer's Children's Report of Parental Behavior Inventory (1965a). Separate 192-item father and mother response forms were administered in counterbalanced order.

The items from both forms of the CR-PBI and from the IPI were separately analyzed using the MAP method of principal components analysis with varimax rotation. The results failed to support the present scoring systems for either inventory. Further, there were significant discrepancies between identified components and current models of both parent-child interactions and imaginal activity. With respect to parent-child interactions, for both the father and the mother, the majority of identified variance was accounted for by three components. In both sets, a bipolar component representing parental support was

identified. Beyond this, however, there was little cross-identification between components. For the father, the other major components related to authoritative control and control through love withdrawal, whereas for the mother, they referred to authoritarian control and detached control. With regard to imaginal activity, three major components relating to the qualitative aspects of the imagining experience were identified. These included: the emotional tone of daydreaming, absorption in daydreaming, and prospective daydreaming.

Relationships between the imaginal variables and the parent variables developed from the principal components analyses were examined using Pearson correlations, as well as regression and canonical correlation to assess the multivariate relationships between the sets of data. Results indicated that 1) imaginal activity was related to control exerted by both parents within the context of emotional support, and 2) imaginal activity was more highly associated with the quality of interaction with the opposite-sex parent, particularly with regard to females. Overall, however, the results were not as promising as anticipated; relationships accounted for only a small proportion of the variance and predictive power was not substantially enhanced by the addition of variables to either the independent or dependent variable sets.

The results relating to both the structure of parent-child interactions and imaginal activity and the relationships between these domains are discussed in terms of correspondence to previous findings and implications for future research.

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INTRODUCTION

Cognitive activity subsumed under the various terms of imagination, daydreaming, fantasy, and reverie comprises a major segment of waking life. While most likely to occur just prior to going to sleep (Singer, 1975), such activity is clearly not limited to this period of our lives and is seemingly interspersed amongst all other types of activity. Thus, as Klinger notes, this aspect of cognitive functioning would seem to carry

. . . important implications from the standpoint of behavioral science. The structure of so common an activity most probably carries profound significance for the organization of human behavior generally. Furthermore, in a species that has evolved through such extended molding by natural selection, so prominent an activity as (this) is likely to exercise important functions in the adaption of the organism (Klinger, 1971; pg. 4).

Despite the apparent significance of such cognitive activity, for more than a generation this aspect of human behavior has been considered to be more within the province of the artist, the poet, and the novelist than the behavioral scientist. In large part, this considered neglect has been a consequence of the disillusionment with the introspectionist

research of Wundt and Titchener, and the behavioristic wave that swept over American psychology. So complete was the rejection of inner experience as a subject of scientific inquiry that not until 1966 was a book published in this country that devoted itself entirely to the examination of imaginative activity.

The years since the appearance of Singer's Daydreaming (1966) have, however, witnessed a renewed interest in cognitive functioning, in general, and in imagination, in particular. Somewhat ironically, one area where this trend can be most clearly seen is in the application of learning theory concepts to human social behavior. In the latest formulation of social learning theory, Bandura (1977) proposes that human behavior cannot be fully understood on the basis of antecedent inducements and response feedback influences alone. Rather, he contends that the effects of external influences on human functioning are mediated by cognitive factors. Specifically, cognitive factors determine, in part, which external events are attended to and retained, how the information they convey will be evaluated and organized for future use and, thus, what effect they will have in the future. Moreover, through cognitive operations, prospective actions may be evaluated in terms of the relative effort required, the potential risks and benefits involved, and the subjective probabilities of achieving the desired outcome.

Along similar lines, there has been a growing recognition, in recent years, of the role of cognitive activity in hypnosis. Such theorists as Barber (1972), J. R. Hilgard (1974), Sarbin and Coe (1972), Shor (1970), and Spanos (1973) have proposed that hypnotic behavior entails involvement in imaginings generated by and consistent with verbal

suggestions. These formulations are supported by a growing body of experimental evidence (summarized in Barber & Ham, 1974; Barber, Spanos & Chaves, 1974) indicating that; a) successful hypnotic subjects tend to report a high level of imaginative activity in everyday life; b) suggestions are more likely to be experienced when they direct the subject to engage in imaginings that are consistent with the aims of the suggestion; c) highly suggestible subjects tend to report imaginings that are more elaborate and of longer duration than those of subjects rated medium or low in suggestibility; and d) the procedures most effective in increasing suggestibility consist of training subjects to become involved in suggestion-related imaginings.

Concurrent with the examination into the function of imagination in human behavior, there is a rapidly growing body of research focusing directly on delineating the nature and structure of imagination. While much has been accomplished, there are many obvious gaps in our knowledge. Perhaps the most glaring of these relates to the influence of environmental factors on the development of imagination. For the most part, developmental studies have been normative in nature, focusing on age trends in predisposition toward and content of imaginative activity (e.g., Giambra, 1974; Piaget, 1962; Singer, 1966). Moreover, with only a few exceptions, those studies which have attempted to examine environmental influences have suffered from such numerous methodological deficiencies as to make their findings of limited utility. In light of these considerations, this dissertation was designed to provide basic data on the relationship between imagination and a set of prominent

factors in the developing child's environment; the behavior of the parents toward the child.

This dissertation is divided into eight chapters. The first delineates the domain of imagination by providing an overview of previous attempts to conceptualize and operationalize imagining, and the current focus of research on this topic. The second provides a detailed discussion of research relating parental-behavior characteristics to cognitive and personality development. The third involves a synthesis of the ideas formulated in the first two chapters in the form of testable hypotheses. The fourth chapter describes the methodology for the study. The fifth presents the results of the study, and the sixth discusses the implications of these results.

I

THE DOMAIN OF IMAGINATION

In the present chapter, an attempt will be made to delineate the domain of imagination. In so doing, three issues will be considered; first, the theoretical conceptualization of imagination, second, the manner in which this concept has been operationalized, and finally, emerging trends in research on imagination.

The Concept of Imagination

While Klinger (1971) is quite accurate in noting that there are no generally accepted criteria for discerning the boundaries of imagination, there appears to be adequate consensus among investigators to formulate a working definition. Specifically, there would seem to be general agreement that imagination entails a shift in attention away from the immediate physical environment and, thus, encompasses all mental activity which is not evaluated by the individual in terms of its usefulness in achieving some extrinsic goal. This conceptualization of imagination has been most clearly explicated by Schutz (1967) in his discussion "On Multiple Realities."

The natural attitude of daily life. According to Schutz, man's day-to-day interactions with his physical and social environment are guided by a set of assumptions relating to what is real and what is not. These assumptions, termed the natural attitude, serve as a frame of

reference from which the individual integrates and interprets his experiences. Schutz has characterized the natural attitude in the following manner:

It is the world of physical things, including my body;
it is the realm of my locomotions and bodily operations;
it offers resistances which require effort to overcome;
it places tasks before me, permits me to carry through
my plans, and enables me to succeed or to fail in my
attempt to attain my purposes. By my working acts I gear
into the outer world, I change it; and these changes,
although provoked by my working, can be experienced and
tested both by myself and others, as occurrences within
this world independently of my working acts in which they
originated. I share this world and its objects with
Others; with Others, I have ends and means in common; I
work with them in manifold social acts and relationships,
checking the Others and checked by them (pp. 226-227).

As is evident from this, the frame of reference of everyday life is viewed as possessing three primary characteristics. First, from the natural attitude, selective attention is directed toward the immediate physical and social environment; that is, toward objects and events which are either already within the individual's sphere of manipulation and perception or can be brought within it by his own actions. Second, the natural attitude is governed by a pragmatic motive in the sense that the world is seen as something to be altered by our actions or that alters our actions. It follows from this that all cognitive activity within

this frame of reference is operational in nature. The intent of all thinking is to "gear into" the world through action and, as such, is continually guided by the consequences of action. Finally, the world of the natural attitude is viewed as being intersubjective. When operating within this frame of reference, the individual suspends doubt as to whether others' perceptions are the same. One additional property, not mentioned in the preceding quote, also figures prominently in Schutz's formulation. Specifically, cognitive activity and the resultant behavior is experienced as being volitional in nature; the individual defines himself as the causal agent that initiates and sustains these activities.

The attitude of imagining. While, according to Schutz, the natural attitude of daily life is the "paramount reality," there are a number of other frames of reference from which the individual may operate. Alternative orientations include, play, religious experiences, scientific contemplation, dreaming, and imagining. Each is comprised of an internally consistent set of assumptions and a shift to one of these from the natural attitude implies a reorganization in what is attended to and the manner in which experiences are interpreted and defined.

With respect to the attitude of imagining, a shift to this orientation involves the suspension of the criteria of the natural attitude for determining reality. As a consequence,

We have no longer to master the outer world and to overcome the resistance of its objects. We are free from the pragmatic motive which governs our natural attitude toward the world of daily life, free also from the bondage

of 'interobjective' space . . . No longer are we confined within the limits of our actual, restorable, or attainable reach. What occurs in the outer world no longer imposes upon us issues between which we have to choose nor does it put a limit on our possible accomplishments (Schutz, 1967, pg. 234-5).

In other words, when operating from the frame of reference of imagination, the individual is free of the constrictions of pragmatism and intersubjectivity which characterize the natural attitude. He is thus able to construe his experiences in a manner that would be considered impossible and unreal from the perspective of the natural attitude, and to do so without concern over detection from others.

Similar formulations of the attitude of imagining have been put forth by Shor (1959, 1962, 1970), Sarbin and Juhasz (1970), Singer (1966, 1975), and Klinger (1971). Parallels are perhaps most clearly apparent in Shor's concept of the "generalized reality orientation" and Sarbin and Juhasz' "hypothetical instantiation."

According to Shor (1959), our everyday activities are guided by a structured frame of reference. In all our waking life, this "generalized reality-orientation" is carried around in the background of our awareness and provides an implicit set of assumptions about the world which support, interpret and give meaning to all experience. However, under certain conditions such as involvement in mystical experiences, hypnosis, and imagination this orientation toward generalized reality fades into relatively nonfunctional unawareness. With this fading, ongoing experiences become isolated from their usual

context. As a result of this, the individual becomes more receptive to internal sources of stimulation which could not have fit into the usual reality orientation. Moreover, without recourse to the logic, knowledge, and critical functions of the "generalized reality-orientation" these experiences may take on special meanings and reality.

A similar view toward the attitude of imagining has been expressed by Sarbin and Juhasz (1970). According to these investigators, a major activity of Man is making sense out of his sensations and experiences. This is accomplished through a process termed "instantiation"; that is, the categorization of inputs making contact with the cognitive system into instances of a general class. While this process is typically carried out at the literal level, the individual also has the ability to instantiate hypothetical occurrences. As a consequence of this, the individual is able to direct his attention away from the immediate environment and allow for stimulation at a distance, in terms of both space and time.

More specifically, Sarbin and Juhasz (1970) view the process of "hypothetical instantiation" or imagining as being characterized by two interrelated properties--time-binding and the semiotic function. The former refers to the process of inhibiting overt behavior while the individual places himself in a wide variety of more or less specific hypothetical situations. This allows him to rehearse future acts and to examine and manipulate the specifics of present or past actions. While this function bears some semblance to thinking and remembering, it differs in terms of both its greater degree of involvement and the fact that the hypothetical situations need bear no relationship to "reality."

The semiotic function of imagining is closely related to time-binding and indicates the status of imagining as a signifier. Specifically, it relates to the imagining individual's ability to bridge the gap between the literal and figurative by imposing highly idiosyncratic, metaphoric codes on unpatterned inputs.

Although less thorough in their analyses, Singer (1966, 1975), and Klinger (1971) attribute much the same properties to the concept of imagination. Singer (1966) has proposed that daydreaming "is used to mean a shift of attention away from an ongoing physical or mental task or from a perceptual response to external stimulation towards a response to some internal stimulus (p. 3)." Similarly, Klinger (1971), in his attempt to formulate a working definition of fantasy, makes particular note of both non-pragmatic and metaphorical properties.

Imagining and imaging. At this point in our discussion of the concept of imagination, it is important to draw a clear distinction between imagining and imaging. For several obvious reasons, these two concepts are frequently confused and the terms used interchangeably. First, in describing his imaginings the individual is more likely than not to use the visual idiom--"I saw it in my mind's eye" (Sarbin & Coe, 1972). Moreover, as Spanos (1973) notes, imaginal activity is accompanied by a relative predominance of imagery, with productions spun primarily in terms of visual images.

Despite this overlap, there does not appear to be a functional relationship between the two processes. It is possible for individuals, who report a complete lack of imagery, to adopt the attitude of imagining (Shor, 1962, 1970). In addition, imagery can occur while the

individual is operating from the framework of the natural attitude and is typically construed as "unreal" (Spanos, 1973). Thus, imagining should be taken to mean a frame of reference for integrating and interpreting experiences, and not the process of imagery.

Empirical evidence relating to the concept of imagination. The focus of this section has been on theoretical formulations of the process of imagining. As has been demonstrated, there appears to be a general consensus that imagining involves a shifting of attention away from the immediate external environment and the temporary development of an alternative frame of reference for organizing and defining experience. This alternate orientation is generally characterized by the absence of such standards for evaluating experiences as pragmatism and intersubjectivity. In concluding this section, it would seem worthwhile to briefly consider a set of data which offers some preliminary support to this conceptualization.

With respect to the notion that imagining entails a shift in attention, a series of studies have been conducted by Singer and Antrobus assessing the interplay between internal and external stimulation (Antrobus, Antrobus & Singer, 1964; Antrobus, Greenberg & Singer, 1966; Singer & Antrobus, 1964, 1967). The basic design was that of a visual signal detection experiment. The external environment was sharply restricted by seating the subject in a darkened room with limited opportunity for movement and feeding "white noise" through earphones. The subject's "inner" environment was controlled by setting up two alternating conditions--one in which inner activity was varied by requiring the subject to verbalize a continuous free association, and the

other in which inner activity was limited to a narrow range by asking the subject to count out loud from one to nine continuously. Results indicated that: 1) the shift in attention to internal processes leads to a significant deterioration in detection of external stimuli; 2) the number of reports of task-irrelevant fantasies is reduced by increasing the complexity of the signal detection task; and 3) subjects who exhibit a greater predisposition to fantasy show more of a decrement in signal detection performance as the task proceeds. Taken together, these findings would seem to suggest that the process of imagining involves at least a partial shift in attention away from the external environment.

With respect to the second notion (that the manner in which the individual construes his experiences is dependent on the frame of reference from which he is operating) a series of studies investigating the Perky phenomena (Segal, 1968, 1970, 1971; Segal & Fusella, 1969; Segal & Glicksman, 1967; Segal & Gordon, 1969; Segal & Nathan, 1964) appear to offer some preliminary support. In these studies, subjects were requested to imagine a variety of specific objects while, unbeknownst to them, the "imagined" objects were dimly projected on the blank screen before them. It was found that whether subjects attributed their "images" to external sources or to imagination was largely dependent on their expectancies. Thus, subjects were more likely to define experiences as arising from external stimulation when they were informed that stimuli might be flashed on the screen (Segal & Fusella, 1969) or when they carried out the task while standing (a position associated with vigilance) (Segal & Glicksman, 1967). On the other hand, subjects were more

likely to construe their experiences as internally generated when they carried out the task while lying down.

Methods of Assessing Imagination

As suggested in the introduction, a primary cause for the rejection of imagining as a topic of scientific inquiry revolved around the issue of assessment; to paraphrase Watson, since inner experience is not observable, it cannot be legitimately studied. While it is still true that there are no adequate means of directly assessing imagining, this classic argument would appear to have more of the qualities of a "straw man" than a real obstacle. Other equally "unobservable" processes such as learning, memory, and attitudes are firmly established as cornerstones of experimental psychology. This does not, however, release us from the obligation of assessing the adequacy of currently existing methods of measuring imagining.

In general, the wide range of approaches to operationalizing the concept of imagining fall into two broad categories--projective techniques and inventories. In the following sections, each will be considered in turn.

Projective techniques. The use of projective techniques as indices of an individual's imaginal capacity dates back to Rorschach's (1942) original observation that individuals who produce a high frequency of human movement responses (M) to inkblots are, on the one hand, more controlled in their overt actions while, on the other, more given to attention to their own thoughts and imaginings. In the years since, the Rorschach M and its more recent adaptations (e.g., Barron's Movement Threshold Inkblots, Barron, 1955; Holtzman Inkblot Technique,

Holtzman, 1968) have been the most popular projective measures of imaginative tendencies. Recently, however, the Thematic Apperception Test Transcendence Index (Weisskopf, 1950) has been achieving wider recognition and usage. Basically, this index is a measure of the extent to which the individual introduces characters, activities, and emotions not actually present on the stimulus card.

The numerous psychometric deficiencies of both the inkblot technique and the TAT are extensively documented (Anastasi, 1976) and carry serious implications for their use in any research work. Additional problems arise, however, when these techniques are applied to the study of imagining. Consideration of the procedures employed in both techniques raises serious question as to whether the "projected fantasies" which are obtained can be thought of as reasonable operationalizations of imagining (Klinger, 1971). Specifically, "projected fantasy" is defined as the overt response of the individual when presented with a standardized but ambiguous stimulus and is instructed by the examiner to communicate certain of his impressions of it. In sharp contrast to this, imagining has been conceptually defined as a covert process which does not involve a perceptual response to external stimulation or operant activity such as problem-solving in a task situation.

Perhaps more telling than this procedural issue is the fact that the relationship between "projected fantasy" and other indices of imagining is more of a generally accepted belief than a proven fact. Thus, a number of studies (Meltzoff, Singer & Korchin, 1953; Singer, 1960; Singer, Meltzoff & Goldman, 1952; Werner, 1945) have replicated

Rorschach's initial observation of an inverse relationship between overt motility and the M response, and others (Singer & Herman, 1954; Singer & Opler, 1956) have demonstrated a relationship between the Transcendence Index and the M Response. However, as Singer (1966) points out, "The relationship of the M response to imaginative behavior . . . remains to be explored (pg. 85)." Similarly, Holt (1961) reports a number of substantive contrasts between TAT fantasy and other forms of imaginal activity, and concludes that they represent drastically different processes.

Inventories. In the past fifteen years, a large number of inventories designed to assess imaginal capacity have appeared in the literature (e.g., As, O'Hara & Mungar, 1962; Lee-Teng, 1965; Shor, Orne & O'Connell, 1962; Singer & Antrobus, 1970; Tellegen & Atkinson, 1974). In general, these instruments require the individual to indicate the extent to which he engages in a variety of everyday imaginative activities. Thus, the inventory developed by Tellegen and Atkinson (1974) is comprised of items such as: "While watching a movie, a T.V. show, or a play, I may become so involved that I forget about myself and my surroundings and experience the story as if it were real and as if I were taking part in it;" "I can sometimes recollect certain past experiences in my life with such clarity and vividness that it is like living them over again or almost so;" and "If I wish, I can imagine (or daydream) some things so vividly that they hold my attention in the same way a good movie or story does." Along similar lines, the "Imaginal Processes Inventory" (Singer & Antrobus, 1970) includes such statements as: "I lose myself in active daydreaming many different times during

the day;" "When a child, I would often create a great fantasy world for myself;" and "Sometimes my imagination keeps coming back to the same things over and over again, no matter how much I try to change the subject."

In terms of their psychometric characteristics, these inventories are generally more adequate than the projective techniques discussed previously. Most have demonstrated acceptable levels of reliability, either in terms of test-retest reliability or internal consistency. Moreover, individuals' scores have been found to consistently correlate with behaviors presumed to be associated with imaginal activity. For example, subjects who exhibit a greater predisposition to imaginal activity: 1) are most likely to define images flashed on a screen as products of their own imagination, (Fusella, 1972), 2) show more of a decrement in signal detection performance as the task proceeds (Singer & Antrobus, 1964), and 3) tended to show greater dominance in the right hemisphere of their brain (the hemisphere that seems to be associated with more imaginative and intuitive forms of thinking) (Meskin & Singer, 1974). In addition, several investigations have found a consistent relationship between inventory ratings of imaginal capacity and hypnotic responsiveness (As, 1962; Lee-Teng, 1965; Tellegen & Atkinson, 1974; Spanos & McPeake, 1975 a & b).

Inventory measures are not without their potential liabilities, however. As Klinger (1971) notes, since these methods require the recall of imaginings, they incur an irreducible minimum of distortion. Unfortunately, the evidence available to date is largely unsystematic and

further investigation is required to clearly delineate the nature and extent of this problem.

Another fundamental limitation of inventory methods relates to their essentially unidimensional assessment of the process of imagining. Most measures define imagining only in terms of the individual's tendency to engage in such activity. The recent work of Singer and Antrobus (1970, 1972) suggests, however, that more than frequency of imaginings must be taken into consideration when defining imaginal processes. Specifically, their results point to at least three independent modes of imaginal activity, each involving various content, structure, and affective components. The first, a Mindwandering-Distractible pattern, is characterized by fleeting, loosely connected fantasies usually involving anxieties and concerns. The second, a Guilty-Dysphoric daydreaming style, is characterized by ideational activity that is ethically toned and involves much self-doubt and self-criticism. The third, a Positive-Vivid daydreaming style, is characterized by enjoyment of vivid and absorbing fantasies.

It should be noted in closing that while the above findings clearly point to the need to broaden the range of characteristics utilized in defining imaginal processes, the dimensions identified by Singer and Antrobus should not be considered conclusive. To date, all findings are based on factor analyses of scale scores from the Imaginal Processes Inventory. These scales vary widely in terms of internal consistency estimates of reliability. Additional and/or modified modes of imaginal behavior might be identified by more appropriate analyses of responses to individual inventory items. _

Emerging Trends in Imagination Research

In recent years, an extensive body of empirical data on imagination has been accumulated. Some of this has already been considered in relation to the operationalization of the concept of imagining. Additional findings will be reviewed in later sections relating to the role of parental behaviors in the development of imagination. The purpose of the present section is to briefly consider research that appears to represent the primary focus of study in this area. In short, most investigations on imagining relate to two general questions - What is the normal course in the development of imagination from childhood through the adult years? and Are there differences in imagining as a function of background characteristics of the individual?

The normative development of imagining. Drawing from his intensive naturalistic observations of the fantasy play of a rather limited number of children, Piaget (1945) presented the first overall picture of the developmental course of imaginal activity during the first decade of life. Specifically, Piaget concluded that fantasy-like activity was absent during the first year of life. Sometime between the ages of two and three years, however, symbolic play (which involves make-believe representation of absent objects) commences and exhibits a gradual growth in imaginativeness up to about the fifth year. In the years between five and twelve, symbolic play continues to increase in frequency while, at the same time, adhering more closely to reality; that is, the individual's growing awareness of reality intrudes more and more with symbolic constructions becoming less distorting and more nearly related to adopted work.

Available quantitative data are generally in accord with Piaget's observations. Markey (1935), Pitcher and Prelinger (1963), Ames (1966) and Hurlock (1964), for example, found that self-initiated fantasy-like play, daydreaming, and the capacity for imaginative storytelling begins early in childhood between the second and fourth year. Similarly, data from diverse sources also support the suggestion of an increasing trend toward realism (Jersild, 1957; Jersild, Markey & Jersild, 1933; Lehnman & Witty, 1927; Smith, 1904; Yarrow, 1960). This is perhaps best exemplified in the findings of Jersild, Markey and Jersild indicating that from age five and twelve, prospective daydreams (e.g., regarding future occupation, marriage, etc.) and relatively realistic daydreams of accomplishments and prestige increased fourfold. In contrast, during the same period, daydreams of imaginary companions declined by more than fifty percent.

While trends in the development of imagining from birth through puberty have received rather extensive consideration, adolescent and adult imaginings were largely ignored until a series of investigations were conducted by Singer and his associates (Giambra, 1974; Singer & Antrobus, 1963; Singer & McCraven, 1961). Taken together, these data indicate a continued increase in the frequency of imagining through adolescence, with a peak between the ages of fourteen and seventeen years. As the individual enters adulthood, imaginal activity continues along with acceptance of it. However, following adolescence there is a sharp decline in both the frequency of and absorption in imaginings. Concurrent with this are several clear-cut shifts in the content and time orientation of imaginings. During adolescence, imaginings tend to

be future-oriented with content typically being sexual, bizarre and improbable, achievement-oriented, hostile, and heroic. In addition, imaginings during this period also contain a rather high level of guilt and fear of failure. In the adult years, however, much of the prospective and negative quality has disappeared; replaced, instead, by generally pleasant imaginings that are oriented toward present concerns. Finally, as would be expected from our folk knowledge of aging, imaginings in later years tend to be characterized largely by an orientation toward the past.

Background characteristics and imagining. A wide range of background factors have been studied to determine their relationship to imagining. Somewhat surprisingly, few striking differences have been discerned along these dimensions. However, in some instances, the relationships seem intriguing and these will now be presented.

Sex. In a series of studies conducted by Singer and his collaborators (Singer & McCraven, 1961, 1962; Singer & Antrobus, 1963) no evidence emerged indicating that sex differences played a major role in determining either the frequency, structure or content of daydreaming. However, sex-role orientation does appear to make a difference for males in terms of the pattern of daydreaming. Men who are accepting of qualities in themselves that are traditionally defined as "feminine" tend to exhibit a higher frequency of daydreaming and to be more accepting of it. In contrast, men who possess a more traditional sex-role orientation tend to report fantasies which are more sexual, heroic and achievement-oriented in nature.

Education and socioeconomic status. In the same studies, no evidence was found for a relationship between either education or socioeconomic status and daydreaming. This would seem to be contrary to the expectation that both factors would facilitate imaginal activity by providing a more varied stimulus environment. However, as Singer (1975) notes, this assumption may no longer be valid given the general availability of mass media.

Rural-urban background. The nature of the relationship between this factor and imaginal activity is as yet uncertain. In an initial investigation (Singer & McCraven, 1961) clear-cut differences emerged along this dimension. Individuals from an urban background reported the highest frequency of daydreaming, those from a suburban background the lowest, while those from rural areas fell between these two groups. However, a more recent study (Segal & Singer, 1974) failed to replicate this finding.

Sociocultural background. Perhaps the clearest differences in imaginal activity are among the American subcultural groups. In studies conducted by Singer and McCraven (1961, 1962) six cultural groups were found to cluster into two groups of three on the basis of daydreaming frequency. Italian, Negro and Jewish groups all reported a relatively high level of daydreaming while Irish, Anglo-Saxon, and German groups scored much lower on the daydream frequency scale. Moreover, groups in the first cluster were reported to exhibit greater "variety and richness" in daydreaming patterns. Singer (1975) has interpreted these results in terms of group social mobility:

To some extent daydreaming represents one medium through which a person may explore his environment . . . without committing himself to action . . . Persons seeking advancement in social status are ever on the outlook for avenues of fulfillment. For a social group that has attained a relatively stable or secure status, the future may be less intriguing or demanding of imaginary exploration (pp. 61-2).

In addition to the background characteristics just presented, one other factor, intelligence, has received ample consideration (Sarason, 1944; Singer & Antrobus, 1963; Singer & McCraven, 1961, 1962). To date, no data have been reported suggesting an association between level of intelligence and either the frequency or pattern of imaginal activity. This is particularly striking given the fact that Sarason's sample included moderately retarded children and adults.

II

EMERGING TRENDS: PARENT-CHILD RELATIONS AND HUMAN DEVELOPMENT

As was seen in the preceding chapter, the primary focus of imagination research has been normative. Only a limited number of investigations have attempted to determine the influence of environmental factors on the development of imagination. Moreover, of these, only a small proportion have focused directly on the role of parent-child relations. This problem is further compounded by the fact that most of these studies suffer from a variety of methodological limitations and are, thus, of limited utility in generating testable hypotheses. In light of these considerations, it would appear that the most productive course of action would be to search for emerging trends in research focusing on the role of parent-child relations in the development of other areas of cognitive activity. Following this, developmental research in imagination could be assessed to determine whether it lends support to these findings. From this process, the hypotheses to be tested in this investigation will be developed.

The Role of the Father

The child's relation to his mother . . . is without doubt in ordinary circumstances, by far his most important relationship during these years . . . (W)hile

continual reference will be made to the mother-child relation, little will be said of the father-child relation; his value as the economic and emotional support of the mother will be assumed (Bowlby, 1951, p. 13).

This general orientation toward the father--that he is of minimal importance in early child development and only serves the functions of "breadwinner" and occasional mother-substitute--has been accepted almost without question by most developmental theorists, whatever their orientation (Bijou & Baer, 1961; Bowlby, 1951, 1973; Freud, e.g., 1940; Gewirtz, 1972; Kohlberg, 1966; Maccoby & Masters, 1970; Mowrer, 1950; Parsons, 1958; Sears, 1957; Winnicott, 1956). For the most part, this view has been based on the dual assumptions of: 1) availability, and 2) need satisfaction; that is, the mother spends the most time with the child, interacts with him most, and, as the primary caretaker, has strong reward value due to her association with need satisfaction (Lamb, 1975 a, 1976 b). Recently, however, these assumptions have come under serious attack and the general hypothesis appears no longer to be tenable.

Differential availability. The assumption that mothers are highly available to their children while fathers are relatively uninterested and uninvolved is based on findings such as those reported by Rebelsky and Hanks (1971). In this oft-cited investigation, it was indicated that fathers averaged less than forty seconds of verbal interactions per day with their infants. Actually, however, there is no clear consensus on the relative amounts of time mothers and fathers spend interacting

with their infants. Data from several sources suggest that the extent of paternal interaction may have been underestimated (Newson & Newson, 1963, 1968; Parke & O'Leary, 1976; Parke, O'Leary & West, 1972; Pederson & Robson, 1969). For example, Pederson and Robson (1969) found that fathers spent an average of 8 hours/week playing with their eight to nine month old infants. Along similar lines, Newson and Newson (1963, 1968) reported that over 50% of the fathers studied were highly participant in the care of their one- and four-year old children. In addition, the findings of at least one study (Clarke-Stewart, 1972) suggest that while mothers spend a large amount of time in close proximity to their infants, the extent of maternal interaction may have been overemphasized. Specifically, it was found that interactions with the mother characterized by play, object stimulation, and affectionate contact accounted for only about 5% of the infant's waking day.

Of equal importance to these findings is another set of data clearly suggesting that the amount of time spent interacting with the child is a poor indicator of attachment to either parent. Pederson and Robson (1969), for example, found no association between the amount of time fathers spend interacting with their child and the extent of the infant's attachment to the father. Similarly, Schaffer and Emerson (1964) found a negligible correlation between the degree of attachment of the child to the mother and the amount of time she spent with the child. Most recently, Fein and Clarke-Stewart (1973) reported that amount of time either parent spent in close proximity to the infant was a poor index of the quality of their relationship with it.

Need satisfaction. A number of recent studies provide consistent support for the notion that fathers are less active than mothers in the caretaking role (Parke, O'Leary & West, 1972; Parke & O'Leary, 1976; Parke & Sawin, 1976). However, the assumption that this is a critical factor in determining infant attachment and is the basis for the mother's "natural" preeminence as a socializing agent does not necessarily follow. Beginning with Harlow's work with infant monkeys (Harlow, 1961; Harlow & Zimmerman, 1959), investigators have been unable to find any consistent association between attachment behavior, and caretaking and physical gratification (Ainsworth, 1963; Schaffer & Emerson, 1964; Sears, Maccoby & Levin, 1957; Sears, et al., 1953).

Thus, neither the assumption of differential availability nor of the role of need satisfaction in determining dependency behavior has received clear-cut empirical support. Likewise, additional evidence is contrary to the overall hypothesis that the father's role in child development is nominal, serving only the functions of "breadwinner" and "mother-substitute." In particular, it has been demonstrated that; 1) there are qualitative differences in fathers' and mothers' interactions with the infant, 2) infants do not clearly show stronger attachment to the mother, and 3) the quality of the father-child relationship has a profound impact on development. Each of these points will be considered in turn.

Role differentiation. A series of observational studies suggest that important differences exist in the nature of mother-child and father-child interaction. In a preliminary investigation conducted by Biller (1974 c) it was reported that fathers were more likely than mothers to encourage their infant's exploratory behavior and to support their

efforts to solve cognitive and motoric challenges. These findings were supported and extended by Lamb's (1975 c, 1976 a) observations. Specifically, Lamb demonstrated that physical-contact interaction between mother and infant usually revolved around caretaking and control activities. In contrast, fathers most often held their infants for the purpose of playing with them. Role differentiation was further evidenced in the types of play activity each parent engaged in with the child; mothers tended to engage in play that was more conventional and toy-mediated while fathers' play was more physical and idiosyncratic.

Further evidence that parents assume different roles in relation to their children is derived from two nonobservational studies (Meltzer, 1935; Fagot, 1974). In these, the reports of the child and the parents, themselves, suggested that the mother is perceived as serving primarily a caretaking function, while the father is viewed as being more active in activities classified as play.

Attachment behavior. A wide range of infant behaviors have been employed to assess attachment. These include separation protest, proximity seeking, and a variety of behaviors directed toward the parent such as smiling, vocalizing, looking, laughing, reaching to, touching and seeking to be held. Despite this diversity, findings have been highly consistent in suggesting an absence of any long-standing differences in the infant's preference for the mother or the father. With only a single exception (Cohen & Campos, 1974), it has been demonstrated that, by the age of 18 months to two years, infants display equal attachment to both parents (Ban & Lewis, 1971; Kotelchuck, 1972, 1973; Kotelchuck, et al, 1975; Lamb, 1975 b, 1976 a; Lewis & Weinraub, 1974; Lewis, Weinraub &

Ban, 1972; Ross, et al., 1975; Schaffer & Emerson, 1964; Spelke, et al., 1973). Moreover, in two of these studies (Lamb, 1975 b, 1976 a) it was indicated that the strength of attachment behavior to the father was at least equal to that toward the mother by the time the infant reached the age of seven to eight months.

The father-child relationship. Perhaps most damaging to the notion of maternal preeminence is the growing body of data relating to the influence of the father-child relationship on cognitive, personal, and social development. With respect to cognitive functioning, for example, both the extent of paternal involvement and the quality of the interaction has been found to have a significant impact. Thus, Kimball (1952) studied a group of underachieving preparatory school boys with superior intelligence. Her findings indicated that, in comparison with others from the school population, these boys had poorer relationships with their fathers. A large number of the fathers were characterized as either being home infrequently, or as using excessive discipline as a means of controlling their sons. Moreover, the boys typically expressed feelings of paternal rejection and hostility. Similarly, Radin (1972), in a study of four-year old boys, found a highly significant positive relationship between both the overall level of father-son interaction and paternal nurturance, and measures of intellectual functioning. In contrast, these same measures were found to be negatively associated with paternal restrictiveness. Other evidence consistent with the notion that the character of father-son interaction has a significant effect on cognitive development comes from studies demonstrating that: 1) fathers of under-achieving boys appear insecure in their masculinity and view themselves

as failures (Grunebaum, et al., 1962); 2) academic achievement in lower-class black elementary school boys is positively associated with paternal interest and encouragement (Katz, 1967; Soloman, 1969); 3) father absence, especially in early childhood, is related to poor school grades, lower functioning on intelligence and aptitude tests, and deficient academic performance in general (Blanchard & Biller, 1971; Deutsch & Brown, 1964; Dyl & Biller, 1973; Lessing, et al., 1970; Santrock, 1972); 4) fathers of field independent boys tend to be perceived as more involved and nurturant (Dyl & Witkin, 1965; Beder, 1957); 5) boys whose fathers are neglecting or passive are more likely to adopt a global versus an analytic conceptual style (Witkin, 1960); and 6) moderately active paternal participation is associated with flexible thinking in young boys (Busse, 1969).

While the father has been shown to be an important force in cognitive functioning, his influence is not limited to this aspect of development alone. As would be expected, the extent of paternal involvement is a critical factor in male sex-role development. Boys who experience paternal deprivation during the first four to five years have been found to have less masculine self-concepts and more sex-role conflicts (Biller, 1968, 1969 b, 1974 a; Biller & Bahm, 1971), and to be less assertively aggressive and independent in their relations with peers (Hetherington, 1966; Stolz, et al., 1954). However, as with cognitive functioning, more than the level of father-son interaction must be considered. Studies have indicated that while interaction with a masculine, interested, and nurturant father who encourages his son to be independent and assertive facilitates masculine development, interaction

with a father who is either punitive and rejecting, or passive and ineffectual can lead to inadequate sex-role functioning (Bandura & Walters, 1959; Biller, 1969 a; 1971, 1974 b; Bronson, 1959; Mussen, 1961).

Other aspects of personal and social adjustment which have been found to be associated with the adequacy of the father-son relationship include: self-confidence and self-esteem (Coopersmith, 1967; Mussen, et al., 1963; Sears, 1970); social competence (Slater, 1962); achievement motivation (McClelland, 1961; Veroff, et al., 1960); impulse control (Becker, et al., 1952, 1962); ability to form lasting heterosexual relationships (Andrews & Cristenson, 1951); and delinquency (Glueck & Glueck, 1950; Goode, 1961). In addition, several studies have demonstrated a link between psychopathology in both children and adults, and father absence and paternal inadequacy (Alkire, 1969; Anderson, 1969; Biller & Davids, 1973; Johnson & Meadow, 1966; Mishler & Waxler, 1968; Kayton & Biller, 1972; Piety, 1967).

In addition to being a highly critical force in his son's development, the father also plays an important role in his daughter's socialization. For example, Hetherington (1972) studied two groups of teenage girls who had become father-absent as a result of either divorce or death. She found that both groups exhibited marked difficulties in relating to men and male peers. The daughters of divorcees were typically overly aggressive and forward toward men, whereas, the daughters of widows were generally quite shy and timid in their interactions. Likewise, Biller and Zung (1972) found sex role conflict and anxiety to be associated with maternal dominance and paternal involvement, while Block (1971) indicated that the highest proportion of well-adjusted

females came from homes where both parents were positively involved.

In brief, the evidence summarized in the preceding sections clearly points to the significant influence of the father on his offspring's development. This emphasis on the father is by no means intended to minimize the role of the mother. As will be seen in the next section, clearly definable patterns of both parents' behavior have been found to effect development.

Dimensions of Parental Behavior

During the past forty years considerable research has been conducted in an attempt to systematically classify parental behavior. In this work a variety of information-gathering techniques have been employed including direct observation of parental behavior, interviewing of parents, and children's reports on their perceptions of parents behavior.

In general, most early studies of parental behavior were relatively consistent in isolating two major bipolar dimensions labeled Acceptance versus Rejection, and Firm Control versus Lax Control (Roe, 1957; Schaefer, 1959, 1961; Schaefer, Bell & Bayley, 1959; Slater, 1962; Symonds, 1939). The first of these clearly related to degree of parental nurturance with behaviors characterized by affection and warmth contrasted with coldness and rejection. In comparison, the second dimension of parent-child interaction referred to permissiveness and control in different aspects of the child's life; that is, lax discipline and encouragement of independent thinking was contrasted with many restrictions and strict enforcement of demands in such areas as sex play, table manners, orderliness, noise, obedience, and aggression toward siblings, peers and parents.

While investigations of a somewhat more recent origin have tended to confirm the dimensions summarized above, they have also clearly suggested that a two-dimensional model with axes for nurturance and control does not cover the entire domain of parent-child interactions. Thus, factor analyses of parent-behavior ratings (Lorr & Jenkins, 1953; Becker, 1964), and of children's perceptions of their parents' child-rearing behaviors (Roe & Siegelman, 1963; Siegelman, 1965; Schaefer, 1965 a, b) have isolated a third parent-behavior dimension. This dimension, labeled "Psychological Control," is unipolar and refers to, "covert, psychological methods of controlling the child's activities and behaviors that would not permit the child to develop as an individual apart from the parent ...(Schaefer, 1965b, p. 555)." The revised, three-dimensional model has been shown to be highly stable over a wide range of populations: American children in grades four through eight (Burger & Armentrout, 1971; Armentrout & Burger, 1972a), American and Canadian college students (Armentrout & Burger, 1972b; Cross, 1969; Schludermann & Schludermann, 1970), Walloon high school students (Renson, Schaefer & Levy, 1968), and Hutterite adolescents (Schludermann & Schludermann, 1971).

In large part, research assessing the relationship between child development and patterns of both parents' behavior have focused on each dimension in isolation. Thus, as was noted in the preceding section, paternal acceptance, involvement, and acceptance of individuation (behaviors constituting the positive pole of the Acceptance versus Rejection dimension) have been found to be associated with academic achievement, field independence and masculine development in sons, while

rejection and hostility have been shown to relate to a global cognitive style and inadequate intellectual and sex-role functioning. Likewise, studies assessing both the mother and father have demonstrated scholastic achievement to be related to variations in parental behavior along both the dimensions of Acceptance versus Rejection (Andersland, 1968; Cooper & Lewis, 1962) and Psychological Control (Cross & Allen, 1969; Lynn, 1974; Teahan, 1963). Parental acceptance, positive involvement and encouragement of independence have also been found to be associated with such varied aspects of development as creativity (Datta & Parloff, 1967; MacKinnon, 1962), ideational flexibility and fantasy (Weisberg & Springer, 1961), vocational choice (Roe, 1957; Green & Parker, 1965), and guilt (Moulton, et al., 1966). With respect to the dimension relating to degree and consistency of discipline exercised by the parents, investigations conducted by Becker (1964), Sanford (1943), Schaefer (1965 a) and Symonds (1939) have indicated that excessive restrictiveness is related to a dulling of intellectual striving and delinquent behavior, whereas excessive permissiveness is associated with anxious emotionality, an inability to sustain attention and low social feelings.

While findings such as these are of significant import, a careful analysis by Becker (1964) points to the need to investigate the manner in which one dimension moderates the affects of another. This point was clearly demonstrated in his consideration of the differential developmental effects of restrictiveness vs. permissiveness exhibited in either a hostile or warm context. According to Becker, permissive parental behavior in a hostile context tends to maximize aggressive, poorly controlled behavior

while in a warm context the child is typically less hostile and more independent, friendly, creative, and moderately persistent. Along similar lines, hostile restrictiveness facilitates self-aggression, social withdrawal and internal conflict whereas, restrictiveness coupled with warmth fosters dependency, extremes in persistence, fantasy hostility and low levels of creativity.

Clearly, further research on the interaction of parental-behavior dimensions is called for. In addition, further analysis of the dimensions defining parent-child interactions would also appear to be warranted. While findings tend to be highly consistent, they are, for the most part, based on factor analyses of scales exhibiting widely varying reliabilities. Two studies (Ellis, Thomas & Rollins, 1976; Margolies & Weintraub, 1977) suggest that factor analyses of individual items of Schaefer's "Children's Report of Parental Behavior Inventory" (1965b) might yield a revised structure. In the first, Ellis, Thomas, and Rollins (1976) obtained results arguing against the unidimensionality of the parental support dimension. Specifically, factor analysis of selected support and control items from the CR-PBI yielded four orthogonal dimensions: Rejection-Control; Companionship; Physical Affect; Withdrawal. In the second, Margolies and Weintraub (1977) factor analyzed a revised, 56-item CR-PBI. Analyses tended to yield factor structures similar to those previously reported. However, the factor representing Firm Control versus Lax Control had a considerably smaller proportion of expected items that loaded properly than did the other two factors and in three of six analyses a fourth (unidentified) factor appeared.

Sex Differences

Thus far, discussion in this chapter has focused on data relating to the role of both parents in the cognitive and social development of their offspring. While it is clear that the behaviors of the father and the mother have a significant impact on both sons and daughters, it is necessary at this point to qualify this statement. One of the most pronounced themes emerging from recent developmental investigations is that the child tends to be most sensitive to the behaviors of the same-sex parent. With regard to cognitive functioning, the work of Radin is of particular importance (Radin, 1972, 1973, 1974, 1976; Radin & Epstein, 1975 a and b). In this series of studies, cognitive competence of four-year old children was measured on a variety of intelligence tests (e.g., the Stanford-Binet Intelligence Scale, the Peabody Picture Vocabulary Test, standardized Piagetian tasks) and parents' verbal and nonverbal behavior was assessed during an interview at home in which only a single parent and the child were present. Results consistently indicated that paternal nurturance was associated with intellectual ability in young boys while restrictiveness was linked to a lack of such competence. No such relationship between paternal behavior and girl's intellectual functioning was evidenced, however. Rather, cognitive competence in preschool girls was found to be linked to maternal warmth. On the basis of this evidence, Radin (1976) concluded that same-sex parents and children tend to be particularly sensitive to one another's behaviors and, as a result, respond to one another in a far more differentiated manner.

Support for Radin's findings is derived from a variety of sources. Both correlational (Jordan, et al., 1975; Mutimer, Laughlin & Powell, 1966) and longitudinal (Honzik, 1967) studies have indicated that intellectual competence in boys (girls) is most closely associated with warmth and acceptance in the father-son (mother-daughter) relationship. Further, evidence on father-absence suggests that while both boys and girls are influenced, paternal deprivation has a somewhat more negative effect on the cognitive abilities of boys (e.g., Landy, et al., 1969; Lessing, et al., 1970; Santrock, 1972). Similar results have been obtained in investigations of cognitive style. Harrington, Block and Block (1975) found three-year old boy's intolerance of ambiguity to be related to paternal hostility, rejection and impatience; girl's performance, on the other hand, was most clearly affected by their mother's behavior. Likewise, Seder (1957) reported that fathers of field-independent boys spent little time with their sons, and the time they did spend with them was characterized by relatively passive activities such as T.V. watching. Also, boys who exhibited a global, as opposed to analytic, cognitive style typically had fathers who employed more punishment and physical aggression. Neither of these relationships held for girls. Finally, a close father-child relationship in which the father is both dominant and democratic is associated with high achievement motivation in boys, in particular (Norman, 1966; Werts, 1966). Boys, in turn, are less susceptible than girls to pressure to achieve exerted by their mothers (Kagan & Freeman, 1963).

To summarize briefly, there are a number of relatively clear themes emerging from developmental research. These included: 1) the father's

role in child development is equal in importance to that of the mother; 2) the domain of parental behavior may be conceptualized along clearly definable dimensions which are the same for both parents; 3) in general, parental acceptance and consistent though not excessive control is associated with adequate cognitive functioning (assessed in terms of intellectual competence, academic achievement and cognitive style) and personal adjustment; and 4) the child is relatively more sensitive to the behaviors of the same-sex parent.

Taken together, these findings would seem to suggest that the father, as well as the mother, should play an important role in the development of imaginal behavior. In particular, two studies indirectly point to the contribution of the father in such development. First, Singer and McCraven (1962) reported that while sex is not a factor in imaginal activity, sex-role orientation does appear to make a difference for males in terms of the pattern of daydreaming. Studies have consistently demonstrated the importance of the father-son relationship in sex-role development (Biller, 1971). Second, Lamb (1976a) found that father's interactions with infants tended to be characterized by play activities of an idiosyncratic nature. While the relationship between play and imagination has yet to be clearly defined, the development of one has been shown to closely parallel that of the other (Ham, 1975).

In the next section, the extent to which these findings are supported by studies directly assessing the relationship between parental behavior and the development of imagining will be considered.

Research on the Development of Imagining

Several studies have focused directly on the relationship between parental behavior and the development of imagining (Bene, 1975; Hilgard, 1974; Shatin, 1953; Singer, 1961; Singer & McCraven, 1961; Singer & Opler, 1956; Singer & Schonbar, 1960; Singer & Sugerman, 1955). As has been noted in previous sections, these investigations as a whole are subject to a number of serious limitations. It is important to consider these limitations before turning to the results and their relationship to the trends summarized above.

Limitations. Briefly, these studies may be criticized in terms of the subjects employed and/or the techniques utilized to assess both imaginal activity and parental behavior. With respect to the former, the majority of studies (Bene, 1975; Shatin, 1953; Singer & Opler, 1956; Singer & Sugerman, 1955) have employed subjects drawn from psychopathological populations and it is difficult to ascertain the extent to which observed relationships are a function of the unique characteristics of these samples. Moreover, with only three exceptions (Hilgard, 1974; Singer, 1961; Singer & McCraven, 1961), studies have failed to use samples composed of both males and females. As a consequence, little data are available on the interaction between sex of parent and sex of child.

With regard to the measurement of parental behavior and imaginal activity in the offspring, several criticisms may be raised. In none of these studies was parental behavior or the perception of such behavior directly assessed. Instead, the quality of the parent-child relationship

was measured through the use of such indirect techniques as responses to parental-type TAT figures, perceived similarity to parents, expressed preference for one parent over the other, and membership in a particular ethnic group (Irish vs. Italian). The reliability of such measures and their relationship to more direct measures of parental behavior is left unreported. Similar difficulties arise with respect to the assessment of imaginal activity. Most studies (Bene, 1975; Shatin, 1953; Singer & Opler, 1956; Singer & Sugerman, 1955) employed projective techniques--either Rorschach human movement response or the Transcendence Index--to assess such behavior. The limitations of these measures in terms of reliability and validity have already been addressed (see Chapter I). Moreover, in two additional studies (Hilgard, 1974; Singer, 1961), imaginal activity was measured in terms of responses to open-ended interview questions. Singer (1961), for example, categorized subjects as either high or low in "fantasy predisposition" on the basis of the number of positive responses to four questions: "What is your favorite game?"; "When you play by yourself, what games do you play?"; "Do you have pictures in your head?"; and "Do you have a make-believe playmate?" Reliabilities were not reported for either technique. Only two studies (Singer & McCraven, 1961; Singer & Schonbar, 1960) utilized inventories which possessed an acceptable level of reliability. In both instances, however, only frequency of imagining was assessed.

Findings. Within the constraints outlined above, results regarding the relationship between parental behavior and imagining provide partial support for the general themes emerging from developmental research. Specifically, these findings may be summarized in the following manner:

- 1) Although Singer (1961) suggests that fantasy predisposition is a function of the mother-child interaction, there is no clear-cut support for this contention. Rather, studies have shown that "high fantasy" subjects show a preference for one parent over the other but the sex of this parent has varied from study to study.
- 2) A positive relationship with a relatively benign and nurturant parental figure appears to be associated with a tendency toward imaginal activity.
- 3) Parental intrusiveness and overprotectiveness appears to inhibit the development of imaginal skills for lack of the opportunity to practice.
- 4) Extent of parent discipline appears to be positively associated with imaginal activity. However, it is unclear as to whether this is a direct effect or whether discipline, which typically involves periods of isolation, facilitates such activity by providing greater opportunity for practice.

III

OVERALL AIM OF THE RESEARCH

The overall aim of the present research is two-fold. The first is to obtain correlational evidence relating to the following questions: 1) To what extent can the a priori scales of the Children's Report of Parental Behavior Inventory (Schaefer, 1965a) and the Imaginal Processes Inventory (Singer & Antrobus, 1970) be supported? 2) To what extent are the models for parent-child interactions and imaginal activity artifacts of the level of data analyzed?

As was discussed in Chapters I and II, previous analyses of the CR-PBI and IPI have been highly consistent. However, as was also noted, the overwhelming majority of these have evidenced a common weakness: scale scores rather than responses to individual items have been employed as the data base. This is viewed as problematic in that a) estimated reliabilities of inventory scales vary widely, with several falling below acceptable limits, and b) factor analyses suggest high intercorrelations amongst several inventory scales. Further, where actual item responses from the CR-PBI have been analyzed, a somewhat altered factor structure has been reported. On the basis of this, it is hypothesized that analyses carried out at the item level will:

- 1) Fail to support the present scoring system of both the CR-PBI and IPI.

- 2) Yield a more complex structure for both parent-child interactions and imaginal activity than has previously been reported.

The second aim of the present investigation is to utilize the results from the preceding analyses to explore the relationships between imaginal activity and parent-child interactions. More specifically, the purpose is to obtain correlational evidence relating to the following question: How do identified dimensions of imaginal activity relate to the child's perceptions of interactions with both the mother and the father? In this regard, the following hypotheses were formulated:

- 3) The frequency of imaginal activity reported by subjects is related to the perceived quality of interactions with both the mother and the father.
- 4) The quality of imaginal activity reported by subjects (i.e., its content and structure) is related to the perceived quality interactions with both the mother and the father.
- 5) Both the frequency and quality of imaginal activity are most strongly related to the perceived quality of interactions with the same-sex parent.

IV

METHODOLOGY

Subjects

Two hundred seventy-one Ss from general psychology classes at three colleges (Stonehill College, University of Rhode Island, Rhode Island Junior College) volunteered (for credit) to participate in a "doctoral dissertation considering the relationship between cognitive activity and childhood experiences." Of this original number, 19 Ss were dropped from the sample because they failed to complete the testing. An additional 23 Ss were also dropped because family background questions revealed that they had been raised in a single-parent home. The final sample, therefore, consisted of 229 Ss. (The demographics on this sample are presented in the Results chapter.)

Procedure

All Ss were tested in two sessions conducted by the experimenter. Testing groups ranged in size from 38 to 75 Ss.

In the first testing session, Ss were administered a standardized set of instructions emphasizing 1) the general characteristics of the inventory, 2) the importance of responding to all items honestly, and 3) the steps taken to protect confidentiality. Following this, the Imaginal Processes Inventory (IPI) devised by Singer and Antrobus (1970) was administered. Within one week thereafter, Ss participated in the

second testing session. During this session, Ss were required to respond to a series of family background questions and to complete the Children's Report of Parental Behavior Inventory (CR-PBI; Schaefer, 1965a). The CR-PBI consists of separate, but virtually identical mother and father forms administered in counterbalanced order. Prior to administration of the CR-PBI, Ss were instructed to respond to items in terms of how they viewed their parents' behavior when they were 16 years of age.

Debriefing of Ss were conducted in the following manner: 1) At the conclusion of the second testing session, Ss were invited to meet with the experimenter to discuss the rationale of the study and to raise any questions. 2) A summary of the study and its findings was made available to Ss through their course instructors upon completion of data analysis. This summary also informed Ss as to how the experimenter could be contacted if further information was desired.

Assessment of Variables

Imaginal Processes Inventory (IPI). The IPI is a self-report inventory designed to sample a large range of daydreaming and imaginal activity. In its current form, this instrument consists of 344 items responded to on a 5-point scale and includes 28 subscales (See Appendix Table A). Twenty-one subscales assess either content or structure of imaginal processes while 7 represent measures of curiosity and patterns of attention. Factor analytic studies (Fusella, 1972; Segal & Singer, 1974; Singer & Antrobus, 1970, 1972; Starker, 1974) have typically demonstrated that the IPI subscales represent three independent modes of

imaginal behavior: Anxious-Distractibility in Daydreaming; Guilty-Negatively Toned Emotional Daydreams; and Positive-Vivid Daydreaming. However, all factor analyses have been based on the twenty-eight scale scores rather than using the 344 inventory items as input.

Overall, the reported internal consistency estimates of reliability of the IPI are mixed. Both Singer and Antrobus (1972) and Giambra (1974) report a mean scale reliability in the low 80's. However, scale reliabilities are widely varied (from .39 for Auditory Images in Daydreams to .91 for Heroic Daydreams) and approximately one-third are below .80.

The relationship between IPI subscales and factors, and other behavioral manifestations of imaginal activity has been assessed in a number of studies. Starker (1974) reported that subjects who had especially high and low scores on the three IPI patterns of daydreaming exhibited highly similar styles of imaginal activity in their night dreams. Singer and Antrobus (1967) found that subjects who received high scores on IPI scales representing the Positive-Vivid Daydreaming dimension reported more extraneous thoughts during a signal detection task. These subjects also tended to show more decrement in performance as the task proceeded. Along similar lines, Fusella (1972) demonstrated that high scores on Positive Daydreaming scales were more likely to misconstrue dimly projected pictures as being products of their own imagination. Finally, Meskin and Singer (1974) found that subjects who consistently shifted their eyes to the left when responding to reflective questions (and who are, thus, presumed to have greater dominance in the brain hemisphere associated with more imaginative and intuitive forms of

thinking) tended to score higher on Positive Daydreaming scales, such as Visual Images in Daydreaming, Future-Oriented Daydreams, Positive Reactions to Daydreams, etc.

Children's Report of Parental Behavior Inventory (CR-PBI). The revised version of the CR-PBI was developed from item and factor analyses (Schaefer, 1965 b) of the initial version (Schaefer, 1965 a). In its current form, the CR-PBI consists of 18 scales, 6 of which are based on 16 items and 12 of which are based on 8 items (See Appendix Table B) for a total of 192 items. The items are descriptions of concrete, specific, easily observable parent behaviors. The subject indicates whether each item is like, somewhat like, or not like his parent's behavior on separate but identical forms for mother and father. These responses are scored 3, 2, and 1, respectively, and summed to yield individual scale scores.

Internal consistency estimates of reliability for the earlier version of the CR-PBI have been computed with the Kuder-Richardson Formula 20 (Schaefer, 1965 a). Scale reliabilities were found to range from .38 to .94; the median scale reliability was .76. Unfortunately, no data are available on the internal consistency reliability of the revised version. However, it is possible to estimate scale reliabilities from reported communalities or factor loadings (Thurstone, 1947). Employing the factor loadings reported by Cross (1969), whose sample most closely approximates that of the present investigation, the lower bound of scale reliabilities may be estimated to range from .44 to .90, with a median scale reliability of .74.

Research on both forms of the CR-PBI have focused primarily on assessing factor structure (Cross, 1969; Renson, Schaefer & Levy, 1968; Schaefer, 1965 a and b; Schludermann & Schludermann, 1970). In these studies, diverse subject populations have been utilized, including children and adults, delinquents and nondelinquents, and different national groups. The factor structure for males' and females' reports of maternal and paternal behavior have been highly consistent; three dimensions (labelled Acceptance vs. Rejection, Lax Control vs. Firm Control, and Psychological Control) account for the major amount of the common variance of the parent-behavior scales. Moreover, one study (Schludermann & Schludermann, 1970) calculated the within-group similarity of CR-PBI factors and indicated that the factors were relatively independent of one another. However, as with studies of the factor structure of the IPI, all analyses have employed scale scores rather than inventory items as input.

In addition, Schaefer and Bayley (1967) compared ratings based on interviews with mothers of adolescents with adults' retrospective reports of maternal behavior. Eleven of the 12 correlations of adult behavior scales (Acceptance of Individuation, Acceptance, Positive Involvement, Hostile Involvement, Rejection, Hostile detachment) with the adolescent dimensions of Autonomy vs. Control, and Love vs. Hostility were significant, seven beyond the .01 level and 4 beyond the .05 level. More importantly, the absolute size of the correlations was relatively high for sets of data gathered by different methods from different persons by different investigators at different times (range .35 to .63; $\bar{X}$ = .51).

Finally, scales of the CR-PBI have been shown to discriminate between groups of normal and delinquent boys (Schaefer, 1965 a), between normal and neuropsychiatric males, and among psychodiagnostic categories (Vogel, et al., 1964).

Data Analysis

Analysis of the data gathered in the present investigation was carried out in three parts. The purpose of the first two was to extend previous research on the structure of parent-child relations and imaginal activity as represented by the CR-PBI and IPI, respectively. As discussed previously, while findings have been highly consistent with respect to the factor structure of these two inventories, all investigations evidence a common weakness; scale scores rather than item responses have been employed as the data base. This was viewed as problematic in that 1) estimated reliabilities of CR-PBI and IPI scales vary widely with several falling below acceptable limits, and 2) factor analyses performed on both the CR-PBI and IPI suggest high intercorrelations amongst several inventory scales. In line with these considerations, Parts I and II consisted of separate principal component analyses of CR-PBI and IPI items. At this point, it should be noted that while the sample size of 229 Ss only slightly exceeded the total number of items in each analysis (172 to 198), this was considered sufficient to establish stable correlations.

Part III of the data analysis constituted a test of the hypotheses outlined in the preceding chapter. Specifically, results from the above analyses were utilized to generate scale scores which, in turn, were

utilized to determine the relationship between dimensions of imaginal activity and parent-child relations.

The specific elements of each of these parts of the data analysis will now be considered in the following sections.

Part I. Identification of dimensions of parent-child interactions.

Ss' responses to the mother and father versions of the CR-PBI were analyzed separately. The two forms could have been analyzed together in that Ss rated their parents on the same questions. However, separate analyses permitted the evaluation of interparent variation.

For each version of the CR-PBI, a principal components analysis was performed on the 192 x 192 matrices of item intercorrelations. Velicer's (1976) Minimum Average Partial (MAP) correlation procedure was utilized to determine the number of components to extract. This procedure is based on the concept of partialing out components until the average squared partial correlation reached a minimum. A varimax rotation was performed on the resulting component pattern.

Following the above analyses, scale scores were calculated for all components containing 5 or more items with loadings at or above .40. Only those items meeting this criteria were included in the unweighted summation. Further, for negatively weighted items, Ss' responses were reversed before summation (i.e., a rating of "3" was entered as a "1" and vice versa). The use of the .40 level for item component loadings rather than the conventional minimum value of .30 was based on two considerations: 1) the loadings of the initial items on each component were generally quite high; typically within the range of .70 to .90,

2) since scale rather than component scores were calculated, this higher minimum value would serve to raise scale reliabilities.

Part II. Identification of dimensions of imaginal activity. Due to limitations in available computer programs, Ss' responses to the 344 items of the IPI could not be analyzed as a single set. Therefore, IPI items were divided in half to form two sets. For each resulting 172 x 172 matrix of item intercorrelations, a principal components analysis was performed using the MAP procedure with a varimax rotation of the component pattern.

The above analyses were followed by a third principal components analysis of a 198 x 198 matrix of item intercorrelations. Items forming this matrix consisted of a) five marker items for each component identified in the previous analyses, and b) items which failed to load on any identified component at a level of .40 or above. Again, the MAP procedure with a varimax rotation was employed.

Following the above analyses, unweighted scale scores were calculated for all components from the third analysis with five or more items loading at the .40 level or above. The procedure employed in calculating scale scores for the CR-PBI was again followed. In addition, a daydreaming frequency score was also calculated for each S to allow for the testing of hypotheses regarding general tendency toward imaginal activity. This scale was identical to the IPI scale of the same name.

Part III. Identification of relationships between parent-child interaction and imaginal activity. In order to test for differential relations of parental behavior to imaginal activity as a function of both

the sex of the parent and the sex of the offspring, all analyses were carried out on the following four data groupings: males' reports of their fathers' behavior, females' of fathers', males' of mothers', and females' of mothers'.

Pearson correlations. Basic zero order correlations were performed for all pairings of independent and dependent variables for males and females separately.

Stepwise multiple regression. A forward stepwise multiple regression analysis of each of the imaginal activity variables on the parent-child interaction variables was performed using the SAS76 program (Barr, et al., 1976). Mother and father variables were formed into separate predictor sets. The stepwise procedure was selected because of the fact that while the multiple correlation increases as variables are added, the increase may not be statistically significant. The significance of the incremental R^2 was tested by the following formula:

$$\frac{R^2 \text{ (Larger)} - R^2 \text{ (Smaller)}}{(1 - R^2 \text{ (Larger)}) / (N - k - 1)}$$

RESULTS

Demographic Data

The final sample of this investigation consisted of 229 Ss, 91 males and 138 females. Data pertaining to subject and family background characteristics of this sample are summarized in Table 1. As indicated, Ss ranged in age from 16 to 48 years. However, nearly all (96%) Ss were 25 years-of-age or below with a median age of approximately 19 years. Consistent with this, nearly two-thirds of the sample were college freshmen while another 27% were sophomores. In addition, nearly all Ss were white (96%) and Catholic (81%).

With regard to family background characteristics, Ss in the final sample had an average of three siblings, who were evenly divided between brothers and sisters. Moreover, nearly one-half of the Ss were about evenly divided between being the oldest and the youngest in the family, with only 1% being the only child. Finally, Ss' fathers tended to attain a somewhat higher level of education than their mothers. Specifically, the median level for fathers was "some college", whereas the median for mothers was "completed high school." In line with these educational levels, fathers tended to be employed in occupations other than skilled and unskilled labor. By comparison, Ss predominantly characterized their mothers' occupations as either "housewife" (37%) or "laborer" (unskilled 17%, skilled 20%).

TABLE 1

SUBJECT AND FAMILY BACKGROUND CHARACTERISTICS

CHARACTERISTIC	RANGE	MEDIAN	PERCENTAGES
AGE	16 - 48	19.07	-
CLASS	-	-	Fr. - 63% Jr. - 7% Soph. - 27% Sr. - 3%
RACIAL/ETHNIC GROUP	-	-	White - 95% Hisp. - .5% Black - 2% Am. Ind. - 0% Oriental - .5% Other - 1%
RELIGION	-	-	Prot. - 12% Jew - 3% Cath. - 81% Other - 4%
TOTAL # SIBLINGS	0 - 10	3.02	-
# BROTHERS	0 - 7	1.65	-
# SISTERS	0 - 6	1.55	-
POSITION	-	-	Only Child - 1% Middle - 49% First - 26% Youngest - 24%
FATHER'S EDUCATION*	1 - 8	5.19	-
MOTHER'S EDUCATION*	1 - 8	4.59	-

*Parental education was scaled as follows: 1 = some grade school;
 2 = completed grade school; 3 = some high school; 4 = completed
 high school; 5 = some college; 6 = completed college; 7 = some
 graduate work; 8 = completed doctorate

Principal Component Analysis of the CR-PBI

Father Response Form

A principal components analysis was performed on the 192 x 192 matrix of intercorrelations among items from the father response form of the CR-PBI. The MAP method was employed to determine the number of components to retain. A varimax rotation was performed on the resulting component pattern.

This analysis of father response form items resulted in 16 components which together accounted for 66.7% of the total variance. Correlations among items were generally rather low with an average squared interitem correlation of .126. Items with a loading of .40 or higher on at least one component were considered. These items were listed by component in order of the absolute size of their loadings and are presented in Table 2. As can be seen, only the first five components are represented. These components together accounted for 53.7% of the total variance (Eigenvalues for the first 25 components appear in Appendix C). The remaining eleven components were not considered because they were poorly defined; that is, they contained fewer than five items loading at or above the .40 level. Each of the five components represented in Table 2 will be briefly considered in turn.

Authoritative control. The first father component was labeled authoritative control because of its close correspondence to a parenting dimension previously identified by Baumrind (1968). Specifically, this component was very broadly defined with at least four items from 12 of the original 18 CR-PBI scales. Ninety-two of the total of 192 items had a loading of .40 or higher on this component. The content of the

highest loading items clearly related to control; that is, they suggested an individual who is directive and who exerts both direct and psychological forms of control when the child misbehaves. Items representative of this aspect of the component are "Wants to control whatever I do," "Asks other people what I do away from home," and "Almost always punishes me in some way when I misbehave." Additional items loading on this component further suggested a parent who, while not generally supportive or involved, is capable of being expressive and flexible with the child, encourages give and take, shares with the child the reasoning behind rules, and doesn't burden the child with numerous restrictions (i.e., acknowledges the child's rights in certain areas such as dress, use of free time, and the spending of personal funds).

Control through love withdrawal. Like the first component, this component was broadly based, consisting of 87 items drawn largely from six CR-PBI scales. This component also appeared to represent a dimension of parental control. The content of positively loaded items largely related to directing or restricting the child in accordance with set standards of conduct (e.g., "Keeps reminding me about things I am not allowed to do," "Sticks to a rule instead of allowing a lot of exceptions"). Negatively loaded items, on the other hand, frequently referred to acceptance of the child as an individual and autonomy (e.g., "Tries to understand how I see things"). In contrast to the first component, the style of control appeared to be generally psychological with particular emphasis on withdrawal of affection. This was suggested in several ways. First, items which referred to rejection and detachment consistently

TABLE 2

ITEMS LOADING $\geq .40$ ON THE VARIMAX ROTATED COMPONENTS
OF THE FATHER VERSION OF THE CR-PBI

Loading	Item Number	Item	CR-PBI Scale
Component 1. Authoritative control			
.942	119	Complains that I get on his nerves	Hd
.926	135	Doesn't get me things unless I ask over and over again	Rej
.925	139	Wants to control whatever I do	Hc
.922	118	Says that someday I'll be sorry that I wasn't better as a child	Anx
.914	114	Says if I love him, I'd do what he wants me to do	Cg
.914	123	Doesn't work with me	Rej
.912	126	Asks other people what I do away from home	Int
.906	104	Only keeps rules when it suits him	Id
.903	103	Is unhappy that I'm not better than I am in school	Hc
.897	108	Will avoid looking at me when I've disappointed him	W
.894	142	Thinks that any misbehavior is very serious and will have future consequences	Anx
.887	107	Almost never goes on Sunday drives or picnics with me	Hd
.885	130	Does not insist I obey if I complain or protest	Ld
.881	111	Often blows his top when I bother him	Rej

Table 2:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
.869	115	Gets cross and nervous when I'm noisy around the house	Hc
.869	116	Seldom insists that I do anything	Ne
.869	148	Sees to it that I keep my clothes neat, clean, and in order	C
.864	124	Insists that I must do exactly as I am told	C
.859	110	Usually makes me the center of his attention at home	Pos
.859	112	Almost always punishes me in some way when I am bad	E
.809	128	Frequently changes the rules I am supposed to follow	Id
.790	102	Wants to know with whom I've been when I've been out	Int
.786	144	Allows me to spend my money in any way I like	Ea
.784	101	Often has long talks with me about the causes and reasons for things	Pi
.781	106	Lets me stay up late if I keep asking	Ld
.778	122	Enjoys staying at home with me more than going out with friends	Cc
.763	146	Makes his whole life center about his children	Cc
.757	120	Lets me dress in any way I please	Ea
-.753	81	Makes me feel free when I'm with him	AI
.740	117	Tries to understand how I see things	AI

Table 2:Continued

Item	Item	CR-PBI Scale
Loading	Number	
Component 1. Continued		
-.739	145	Often speaks of the good things I do A
.738	105	Really wants me to tell him just how I feel about things AI
.732	121	Comforts me when I'm afraid A
.732	133	Cheers me up when I'm sad A
.717	141	Makes me feel at ease when I'm with him AI
.716	109	Enjoys working with me in the house or yard A
.714	125	Encourages me to read Pi
.706	131	Hardly notices when I'm good at home or at school Hd
.703	113	Often praises me Pi
.699	137	Tells me where to find out more about things I want to know Pi
-.679	74	Often gives up something to get something for me Cc
-.666	24	Allows me to go out as often as I please Ea
-.666	79	Keeps after me about finishing my work Hc
.623	134	Does not approve of my spending a lot of time away from home Pos
-.622	132	If I take someone else's side in an argument, is cold and distant to me W
-.620	147	Doesn't seem to know what I need or want Rej
-.609	13	Seems to see my good points more than my faults A

Table 2:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
-.606	1	Makes me feel better after talking over my worries with him	A
-.595	10	Is easy with me	Ld
.595	152	Insists I follow a rule one day and then forgets about it the next	Id
-.570	97	Enjoys doing things with me	A
-.565	143	Is always finding fault with me	Hd
-.557	28	Believes in having a lot of rules and sticking to them	C
.554	140	Does not bother to enforce rules	Ne
-.552	55	Doesn't forget quickly the things I do wrong	Hc
.551	127	Loses his temper with me when I don't help around the house	Hc
-.544	37	Understands my problems and my worries	A
-.535	36	Sometimes when he disapproves, doesn't say anything but is cold and distant for a while	W
-.513	67	Tells me how to spend my free time	Hc
-.507	26	Is always thinking of things that will please me	Cc
-.503	86	Becomes very involved in my life	Pos
.498	150	Questions me in detail about what my friends and I discuss	Int
-.497	93	Asks me what I think about how we should do things	AI

Table 2:Continued

Item Loading	Number	Item	CR-PBI Scale
Component 1. Continued			
-.495	29	Tells me how much he loves me	Pi
-.486	34	Lets me off easy when I do something wrong	Ld
-.479	52	Believes all my bad behavior should be punished in some way	C
-.474	57	Wants me to tell him about it if I don't like the way he treats me	AI
-.465	6	Wants to know exactly where I am and what I am doing	Int
-.464	41	Likes to talk about what he has read with me	Pi
-.463	96	Lets me go places I please without asking	Ea
-.457	2	Likes to talk to me and be with me much of the time	Cc
-.457	61	Enjoys going on drives, trips or visits with me	A
-.448	33	Allows me to tell him if I think my ideas are better than his	AI
.447	166	Says that sooner or later we always pay for bad behavior	Anx
-.447	39	Forgets to help me when I need it	Rej
.443	138	Tells me of all the things he has done for me	Cg
-.439	95	Doesn't share many activities with me	Hd
-.434	47	Doesn't seem to think of me very often	Hd
.431	174	Almost always wants to know who phoned me or wrote to me and what they said	Int

Table 2:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
-.415	92	Doesn't check up to see whether I have done what he told me	Ne
-.411	21	Enjoys it when I bring friends to my home	AI
-.409	46	If I break a promise, doesn't trust me again for a long time	Anx
Component 2. Control through love withdrawal			
.850	27	Says I'm a big problem	Rej
.830	32	Punishes me for doing something one day, but ignores it the next	Id
.825	30	Is always checking on what I've been doing at school or at play	Int
.825	42	Thinks I'm not grateful when I don't obey	Cg
.821	53	Hugs and kisses me often	Pi
.821	56	Sometimes allows me to do things that he says are wrong	Id
.813	72	Gives me as much freedom as I want	Ea
.809	59	Thinks I am just someone to "put up with"	Hd
.806	68	Doesn't insist that I do my homework	Ne
.794	63	Forgets to get me things I need	Rej
.784	31	Keeps reminding me about things I am not allowed to do	Hc
.782	35	Almost never brings me a surprise or present	Hd
.781	49	Enjoys talking things over with me	A

Table 2:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
.778	40	Sticks to a rule instead of allowing a lot of exceptions	E
.777	51	Sometimes wishes he didn't have any children	Rej
.769	47	Doesn't seem to think of me very often	Hd
.768	46	If I break a promise, doesn't trust me again for a long time	Anx
.768	70	Says some day I'll be punished for my bad behavior	Anx
.762	44	Doesn't pay much attention to my misbehavior	Ne
.761	38	Seems to regret that I am growing up and spending more time away from home	Pos
.757	39	Forgets to help me when I need it	Rej
.752	45	Likes me to choose my own way of doing things	AI
.746	52	Believes that all my bad behavior should be punished in some way	C
.740	34	Lets me off easy when I do something wrong	Ld
.738	43	Tells me exactly how to do my work	Hc
.730	65	Believes in showing his love for me	Pi
.723	36	Sometimes when he disapproves, doesn't say anything but is cold and distant for a while	W
.721	50	Gives me a lot of care and attention	Cc
.717	29	Tells me how much he loves me	Pi

Table 2:Continued

Item Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
.708	41	Likes to talk about what he has read with me	Pi
.707	61	Enjoys going on drives, trips or visits with me	A
.701	33	Allows me to tell him if I think my ideas are better than his	AI
.664	28	Believes in having a lot of rules and sticking to them	C
-.608	58	Can't say no to anything I want	Ld
.602	37	Understands my problems and my worries	A
.600	74	Often gives up something to get something for me	Cc
-.583	73	Smiles at me very often	A
-.567	129	Allows me to have friends at my home often	AI
-.560	5	Says I'm very good natured	Pi
-.560	113	Often praises me	Pi
.552	163	Is always trying to change me	Hc
-.551	133	Cheers me up when I am sad	A
-.546	71	Doesn't seem to enjoy doing things with me	Hd
-.546	121	Comforts me when I'm afraid	A
-.545	141	Makes me feel at ease when I'm with him	AI
-.543	137	Tells me where to find out more about things I want to know	Pi
-.538	125	Encourages me to read	Pi

Table 2:Continued

Item Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
.536	155	Often makes fun of me	Hd
-.532	69	Lets me help to decide how to do things we're working on	AI
.515	191	Is never interested in meeting or talking with my friends	Hd
.509	60	Speaks to me in a cold, matter-of-fact voice when I offend him	W
.506	54	Asks me to tell everything that happens when I am away from home	Int
.505	83	Doesn't show me that he loves me	Hd
.504	57	Wants me to tell him about it if I don't like the way he treats me	AI
-.491	9	Doesn't mind if I kid him about things	AI
-.481	105	Really wants me to tell him just how I feel about things	AI
-.481	161	Hugged or kissed me goodnight when I was small	Pi
.479	176	Changes his mind to make things easier for himself	Id
-.473	117	Tries to understand how I see things	AI
-.467	120	Lets me dress in any way I please	Ea
-.459	109	Enjoys working with me in the house or yard	A
.453	175	Doesn't like the way I act at home	Hc
-.452	16	Is very strict with me	E
.451	87	Almost always complains about what I do	Rej

Table 2:Continued

Item Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
-.451	101	Often has long talks with me about the causes and reasons for things	Pi
-.448	144	Allows me to spend my money in any way I like	Ea
.439	84	Is less friendly with me if I don't see things his way	W
.437	64	Gives hard punishments	E
-.436	106	Lets me stay up late if I keep asking	Ld
.435	187	Doesn't let me decide things for myself	Hc
.424	99	Gets cross and angry about little things I do	Rej
-.420	157	Has a good time at home with me	A
-.414	122	Enjoys staying at home with me more than going out with friends	Cc
.408	179	Often seems glad to get away from me for a while	Hd
.404	75	Is always getting after me	Rej
.403	102	Wants to know with whom I've been when I've been out	Int
Component 3. Support			
-.674	171	Tells me to quit "hanging around the house" and go somewhere	Rej
-.673	159	Acts as though I'm in the way	Rej
.668	149	Is happy to see me when I come from school or play	Pi

Table 2:Continued

Item Loading	Item Number	Item	CR-PBI Scale
Component 3. Continued			
.662	185	Says I make him happy	Pi
.630	173	Is very interested in what I am learning at school	Pi
-.627	151	Doesn't give me any peace until I do what he says	Hc
.620	169	Seems proud of the things I do	A
.595	153	Gives me the choice of what to do whenever possible	AI
.567	181	Isn't interested in changing me, but likes me as I am	A
.566	177	Lets me do things that other children my own age do	AI
.562	189	Tries to be a friend rather than a boss	AI
.556	165	Is easy to talk to	AI
-.518	187	Doesn't let me decide things for myself	Hc
.508	161	Hugged or kissed me goodnight when I was small	Pi
.507	157	Has a good time at home with me	A
-.500	163	Is always trying to change me	Hc
-.491	183	Makes me feel I'm not loved	Rej
-.456	160	If I do the least little thing that I shouldn't, he punishes me	E
-.442	184	Has more rules than I can remember, so is often punishing me	E
.411	174	Almost always wants to know who phoned me or wrote to me and what they said	Int

Table 2:Continued

Item Loading	Item Number	Item	CR-PBI Scale
Component 4. Empathy			
.725	98	Makes me feel like the most important person in his life	Cc
.684	85	Is able to make me feel better when I am upset	A
.511	84	Is less friendly with me if I don't see things his way	W
.500	89	Always listens to my ideas and opinions	Pi
.429	82	Excuses my bad conduct	Ld
Component 5. Psychological autonomy			
.623	164	Lets me get away without doing work I have been given to do	Ne
.568	178	Can be talked into things easily	Ld
-.530	172	I have certain jobs to do and am not allowed to do anything until they are done	C
.507	154	I can talk him out of an order, if I complain	Ld
.476	188	Lets me get away with a lot of things	Ne
.421	190	Will talk to me again and again about things that I do that are best	

loaded in a positive direction. Second, items which referred to paternal support, acceptance, and positive involvement loaded in both positive and negative directions. Finally, of the items relating to psychological control, those which dealt with withdrawal loaded in the highest number (e.g., "Sometimes when he disapproves, doesn't say anything but is cold and distant for a while").

Support. The third father component was labeled support and consisted of 20 items which loaded at or above .40. The pattern of item loadings was consistent with Schaefer's bipolar factor of acceptance vs. rejection. Specifically, positively loaded items clearly suggested a father who displays feelings of interest, support, and affection for the child, shares activities with the child, and is generally accepting of the child as (s)he is. Representative items are "Says I make him happy," "Tries to be a friend rather than a boss." In contrast, negatively loaded items referred to rejection and hostile control (e.g., "Acts as though I'm in the way," "Is always trying to change me").

Empathy. The fourth father component was less clearly defined in that it consisted of only five items and could not be matched with any of the original CR-PBI scales. The content of this component is reflected in the following item - "Is able to make me feel better when I am upset;" that is, parental support expressed in terms of comforting the child and making him/her feel important. However, items which referred to withdrawal of relations and lax discipline also loaded in a positive direction.

Psychological autonomy. The final father component was also rather poorly defined in that it consisted of only five items loading at .40 or

higher. The content of the highest loading items alluded to parent-child interaction in which the child is allowed much freedom of activity through the father's laxness in enforcing rules (e.g., "Can be talked into things easily").

Mother Response Form

Analysis of the mother response form of the CR-PBI was the same as that for the father form. A principal components analysis was performed on the 192 x 192 matrix of item intercorrelations. The MAP method was employed to determine the number of components to retain, and a varimax rotation was performed on the resulting component pattern.

This analysis resulted in 16 components which together accounted for 60.8% of the total variance. Correlations among items were generally quite low with an average squared interitem correlation of .089. As in the analysis of the father form, only those items which loaded at or above .40 were considered. Table 3 presents these items listed by component in order of the absolute size of their loadings. As can be seen, only eight components, accounting for 51.3% of the total variance, appear in this table (Eigenvalues for the first 25 components appear in Appendix C). The remaining eight components were too poorly defined to be considered; that is, they consisted of fewer than five items with loading at or above the .40 level.

Support. The first mother component was labeled support and consisted of 71 items with a loading of .40 or higher. These items were drawn almost entirely from six CR-PBI scales. As with the father component of the same name, this component represented parent-child interactions characterized by affection, security, and the sharing of

TABLE 3 .

ITEMS LOADING $>.40$ ON THE VARIMAX ROTATED COMPONENTS
OF THE MOTHER VERSION OF THE CR-PBI

Loading	Item Number	Item	CR-PBI Scale
Component 1. Support			
-.883	71	Doesn't seem to enjoy doing things with me	Hd
-.872	70	Says some day I'll be punished for my bad behavior	Anx
-.860	72	Gives me as much freedom as I want	Ea
-.858	68	Doesn't insist that I do my homework	Ne
-.857	67	Tells me how to spend my free time	Hc
-.841	69	Lets me help to decide how to do things we're working on	AI
-.816	73	Smiles at me very often	A
-.806	74	Often gives up something to get something for me	Cc
.722	50	Gives me a lot of care and attention	Cc
.721	61	Enjoys going on drives, trips, or visits with me	A
.695	49	Enjoys talking things over with me	A
.693	37	Understands my problems and my worries	A
.691	25	Almost always speaks to me with a warm and friendly voice	A
.676	2	Likes to talk to me and be with me much of the time	Cc

Table 3:Continued

Item Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
.674	33	Allows me to tell her if I think my ideas are better than hers	AI
.661	6	Wants to know exactly where I am and what I am doing	Int
.647	29	Tells me how much she loves me	Pi
.645	54	Asks me to tell everything that happens when I'm away from home	Int
.636	9	Doesn't mind if I kid her about things	AI
.635	13	Seems to see my good points more than my faults	A
.633	65	Believes in showing her love for me	Pi
-.624	3	Isn't very patient with me	Rej
-.617	51	Sometimes wishes she didn't have any children	Rej
-.606	23	Spends very little time with me	Hd
.606	26	Is always thinking of things that will please me	Cc
-.605	47	Doesn't seem to think of me very often	Hd
.598	145	Often speaks of the good things I do	A
.595	21	Enjoys it when I bring friends to my home	AI
.581	17	Tells me I'm good looking	Pi
.575	41	Likes to talk about what she has read with me	Pi
.570	34	Lets me off easy when I do something wrong	Ld
-.568	27	Says I'm a big problem	Rej

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
.563	133	Cheers me up when I am sad	A
.557	113	Often praises me	Pi
.555	97	Enjoys doing things with me	A
-.546	43	Tells me exactly how to do my work	Hc
-.543	83	Doesn't show that she loves me	Hd
.543	121	Comforts me when I'm afraid	A
.541	102	Wants to know with whom I've been when I've been out	Int
-.540	11	Doesn't talk with me very much	Hd
.531	141	Makes me feel at ease when I'm with her	AI
-.524	39	Forgets to help me when I need it	Rej
.521	137	Tells me where to find out more about things I want to know	Pi
.518	125	Encourages me to read	Pi
.516	89	Always listens to my ideas and opinions	Pi
-.514	15	Thinks my ideas are silly	Rej
-.496	191	Is never interested in meeting or talking with my friends	Hd
-.491	176	Changes her mind to make things easier for herself	Id
.491	85	Is able to make me feel better when I am upset	A
.490	161	Hugged and kissed me goodnight when I was small	Pi

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
-.483	59	Thinks I am just some to "put up with"	Hd
.479	57	Wants me to tell her if I don't like the way she treats me	AI
.477	81	Makes me feel free when I'm with her	AI
.475	117	Tries to understand how I see things	AI
.474	45	Likes me to choose my own way to do things	AI
.465	157	Has a good time at home with me	A
.462	53	Hugs and kisses me often	Pi
.458	105	Really wants me to tell her just how I feel about things	AI
.458	109	Enjoys working with me in house or yard	A
.455	5	Says I'm very good natured	Pi
.453	149	Is happy to see me when I come from school or play	Pi
-.451	159	Acts as though I'm in the way	Rej
.449	129	Allows me to have friends at my home often	AI
-.444	63	Forgets to get me things I need	Rej
.443	62	Worries about me when I'm away	Pos
.442	14	Doesn't let me go places because something might happen to me	Pos
-.434	155	Often makes fun of me	Hd

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 1. Continued			
-.419	183	Makes me feel I'm not loved	Rej
-.417	7	Decides what friends I can go around with	Hc
.412	24	Allows me to go out as often as I please	Ea
.410	36	Sometimes when she disapproves, doesn't say anything but is cold and distant for a while	W
.403	106	Lets me stay up late if I keep asking	Ld
Component 2. Authoritarian control			
.760	123	Doesn't work with me	Rej
.756	147	Doesn't seem to know what I need or want	Rej
.755	159	Act as though I'm in the way	Rej
.753	75	Is always getting after me	Rej
.739	139	Tells me of all the things she has done for me	Hc
.733	163	Is always trying to change me	Hc
.732	87	Almost always complains about what I do	Rej
.730	99	Gets cross and angry about little things I do	Rej
.723	124	Insists that I must do exactly as I'm told	C
.722	143	Is always finding fault with me	Hd
.719	155	Often makes fun of me	Hd
.719	187	Doesn't let me decide things for myself	Hc

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
-.708	157	Has a good time at home with me	A
-.699	169	Seems proud of the things I do	A
.696	171	Tells me to quit "hanging around the house" and go somewhere	Rej
.693	76	Sees to it that I'm on time coming home from school or for meals	C
.692	151	Doesn't give me any peace until I do what she says	Hc
.684	103	Is unhappy that I'm not better in school than I am	Hc
.682	167	Wishes I were a different kind of person	Hd
.681	191	Is never interested in meeting or talking with my friends	Hd
.679	84	Is less friendly with me if I don't see things her way	W
.675	111	Often blows her top when I bother her	Rej
.663	135	Doesn't get me things unless I ask over and over again	Rej
.662	179	Often seems glad to get away from me for a while	Hd
.660	160	If I do the least little thing that I shouldn't, punishes me	E
.640	183	Makes me feel I'm not loved	Rej
.633	107	Almost never goes on Sunday drives or picnics	Hd
-.631	173	Is very interested in what I am learning at school	Pi

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
-.622	161	Hugged and kissed me goodnight when I was small	Pi
.621	131	Hardly notices when I am good at home or in school	Hd
.619	119	Complains that I get on her nerves	Hd
-.616	85	Is able to make me feel better when I am upset	A
.607	83	Doesn't show that she loves me	Hd
.604	100	Believes in punishing me to correct and improve my manners	C
-.604	185	Says I make her happy	Pi
.602	115	Gets cross and nervous when I'm noisy around the house	Hc
.600	95	Doesn't share many activities with me	Hd
-.600	97	Enjoys doing things with me	A
.597	91	Would like to be able to tell me what to do all the time	Hc
.593	175	Doesn't like the way I act at home	Hc
.582	79	Keeps after me about finishing my work	Hc
-.580	149	Is happy to see me when I come from school or play	Pi
-.567	181	Isn't interested in changing me, but likes me as I am	A
-.566	133	Cheers me up when I am sad	A
.563	172	I have certain jobs to do and am not not allowed to do anything else until they are done	C

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
-.563	189	Tries to be a friend rather than a boss	AI
-.556	77	Tries to treat me as an equal	Pi
-.555	89	Always listens to my ideas and opinions	Pi
-.552	145	Often speaks of the good things I do	A
.550	184	Has more rules than I can remember, so is often punishing me	E
.540	127	Loses her temper with me when I don't help around the house	Hc
-.523	113	Often praises me	Pi
-.522	165	Is easy to talk to	AI
-.504	125	Encourages me to read	Pi
-.490	121	Comforts me when I'm afraid	A
-.481	129	Allows me to have friends at my home often	AI
-.475	109	Enjoys working with me in the house or yard	A
-.474	192	Lets me do anything I like to do	Ea
-.450	141	Makes me feel at ease when I'm with her	AI
-.443	117	Tries to understand how I see things	AI
.438	148	Sees to it that I keep my clothes neat, clean, and in order	C
-.435	164	Lets me get away without doing work I have been given to do	Ne
.433	136	Sees to it that I obey when she tells me something	E

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 2. Continued			
-.420	101	Often has long talks with me about the causes and reasons for things	Pi
-.405	93	Asks me what I think about how we should do things	AI
.404	108	Will avoid looking at me when I've disappointed her	W
Component 3. Control through guilt/intrusiveness			
.711	138	Tells me of all the things she has done for me	Cg
.699	114	Says if I loved her, I'd do what she wants me to do	Cg
.654	162	Says if I really cared for her, I would not do things that cause her to worry	Cg
.575	90	Tells me how much she has suffered for me	Cg
.554	126	Asks other people what I do away from home	Int
.462	102	Wants to know with whom I've been when I've been out	Int
.436	174	Almost always wants to know who phoned me or wrote to me and what they said	Int
Component 4. Control through guilt/restrictiveness			
.704	66	Feels hurt by the things I do	Cg
.698	42	Thinks I am not grateful when I don't obey	Cg
.567	52	Believes that all my bad behavior should be punished	C

Table 3:Continued

Item Loading	Number	Item	CR-PBI Scale
Component 4. Continued			
.510	38	Seems to regret that I am growing up and am spending more time away from home	Pos
.503	18	Feels hurt when I don't follow advice	Cg
.500	62	Worries about me when I'm away	Pos
.476	14	Doesn't let me go places because something might happen to me	Pos
Component 5. Detached control			
.651	7	Decides what friends I can go around with	Hc
.642	31	Keeps reminding me about things I am not allowed to do	Hc
.636	19	Is always telling me how I should behave	Hc
.554	59	Thinks I am just someone to "put up with"	Hd
.552	15	Thinks my ideas are silly	Rej
.543	20	Usually doesn't find out about my misbehavior	Ne
.516	39	Forgets to help me when I need it	Rej
.506	44	Doesn't pay much attention to my misbehavior	Ne
.499	23	Spends very little time with me	Hd
.466	43	Tells me exactly how to do my work	Hc
.447	63	Forgets to get me things I need	Rej
-.437	21	Enjoys it when I bring friends to my home	AI

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 5. Continued			
.422	55	Doesn't forget quickly the things I do wrong	Hc
.412	57	Doesn't seem to think of me very often	Hd
Component 6. Psychological autonomy			
.602	96	Lets me go places I please without asking	Ea
.589	144	Allows me to spend my money in any way I like	Ea
.574	192	Lets me do anything I like to do	Ea
.561	168	Lets me go out any evening I want	Ea
.484	188	Lets me get away with a lot of things	Ne
.440	120	Lets me dress in any way I please	Ea
.431	116	Seldom insists that I do anything	Ne
.430	140	Doesn't bother to enforce rules	Ne
.408	164	Lets me get away without doing work I had been given to do	Ne
Component 7. Control through withdrawal from a relationship			
.686	60	Speaks to me in a cold, matter-of-fact voice when I offend her	W
.657	12	Will not talk to me when I displease her	W
.600	64	Gives hard punishments	E
.578	16	Is very strict with me	E

Table 3:Continued

Loading	Item Number	Item	CR-PBI Scale
Component 7. Continued			
.558	40	Sticks to rules instead of allowing a lot of exceptions	E
.534	36	Sometimes when she disapproves, doesn't say anything but is cold and distant for a while	W
Component 8. Inconsistent discipline			
.619	104	Only keeps rules when it suits her	Id
.564	128	Frequently changes the rules I am supposed to follow	Id
-.456	166	Says that sooner or later we always pay for bad behavior	Anx
.441	80	Depends upon her mood whether a rule is enforced or not	Id
.419	176	Changes her mind to make things easier for herself	Id

ideas, interests and activities. The component generally contained positive loadings for items from the CR-PBI scales of acceptance, positive involvement, and acceptance of individuation. The following items are highly representative of these - "Understands my problems and my worries," "Believes in showing her love for me," "Makes me feel at ease when I'm with her." Negative loadings were on items drawn primarily from the scales of rejection and hostile detachment. Characteristic of these are the items "Sometimes wishes she didn't have any children," and "Spends very little time with me."

Authoritarian control. The second mother component was labeled authoritarian control due to its high degree of similarity to a parenting dimension previously reported by Baumrind (1968). This component was rather broadly based in that it consisted of 63 items drawn largely from seven CR-PBI scales. The content of loaded items clearly related to control. Specifically, the majority of positively loaded items referred to direction and regulation of the child's behavior in accordance with set standards of conduct but without reference to the style of control (i.e., direct or psychological). Positive loadings for other than control-related items were found for coldness and unresponsiveness toward the child, and the expression of annoyance and impatience when the child is disruptive or disobeys. The content of negatively loaded items referred to positive emotional involvement, acceptance of the child as an individual, and autonomy. In sum, the nature of this component is reflected in the following items: "Doesn't seem to know what I need or want," "Is always trying to change me,"

"Doesn't show me that she loves me," "Has more rules than I can remember, so is often punishing me."

Control through guilt/intrusiveness and guilt/restrictiveness.

The third and fourth mother components were not very clearly defined in that they contained only six and seven items, respectively. Both appeared to represent a specific style of psychological control - control through instilling guilt (e.g., "Tells me how much she has suffered for me"). These two components could only be differentiated by the fact that additional items in the former suggested a parent who actively seeks out information on the child's behavior outside the home, whereas, those in the latter suggested a parent who expresses concern and may take direct measures to restrict the child's activities. This distinction is illustrated by the following two items: "Asks other people what I do away from home," "Doesn't let me go places because something might happen to me." On the basis of this, the third and fourth mother components were labeled control through guilt/intrusiveness and control through guilt/restrictiveness, respectively.

Detached control. The fifth mother component consisted of 14 items and was labeled detached control. Items loading on this component were drawn primarily from the following three CR-PBI scales: hostile control, hostile detachment, and rejection. The content of items suggested parent-child interactions marked by control ("Is always telling me how I should behave"), fault-finding ("Thinks my ideas are silly"), detachment ("Spends very little time with me"), and either unawareness or unresponsiveness to the child's needs ("Forgets to help me when I need it").

Psychological autonomy. The sixth mother component contained six items, all of which were drawn from the CR-PBI scales labeled extreme autonomy and nonenforcement. This component seemed to represent a generally permissive style of parenting. The content of loaded items reflected a parent who makes few demands on the child, sets no clearly defined standards of conduct, and avoids the exercise of power.

Control through withdrawal from a relationship. The seventh mother component contained six items from two CR-PBI scales - control through withdrawal of relationship and enforcement. Examination of these items suggested some similarities to the love withdrawal component identified in the analysis of the father response form. However, in contrast to it, the items of this component did not directly indicate that love or support is present and then taken away. Rather they indicated only that the parent cuts off interaction with the child when she disapproves of the behavior (e.g., "Will not talk to me when I displease her"). For this reason, it was felt that this component would be best conceptualized as withdrawal from a relationship.

Inconsistent discipline. The final mother component consisted of five items, four of which came from the CR-PBI scale labeled inconsistent discipline. The content of items loading on this component represented a parent whose enforcement of rules is totally dependent upon her moods or whims (e.g., "Only keeps rules when it suits her").

TABLE 4

CROSS CLASSIFICATION OF ITEMS* BETWEEN THE
COMPONENTS OF THE CR-PBI (F.R.F.) AT THE ORIGINAL SCALES

CR-PBI Scales	Components					Possible
	1	2	3	4	5	
A	8	8	3	1	0	16
Cc	5	3	0	1	0	8
Pos	3	1	0	0	0	8
Rej	5	7	3	0	0	16
C	4	2	0	0	1	8
E	1	3	2	0	0	8
Pi	6	10	4	1	0	16
Int	5	2	1	0	0	8
Cg	2	1	0	0	0	8
Hc	7	6	3	0	0	16
Id	3	3	0	0	0	8
Ne	3	2	0	0	2	8
AI	8	9	4	0	0	16
Ld	4	3	0	1	2	8
Anx	4	2	0	0	1	8
Hd	6	8	0	0	0	16
W	3	3	0	1	0	8
Ea	4	3	0	0	0	8

*Includes all items with loadings $\geq .40$ on any component.

TABLE 5

CROSS CLASSIFICATION OF ITEMS* BETWEEN THE
COMPONENTS OF THE CR-PBI (M.R.F.) AT THE ORIGINAL SCALES

CR-PBI Scales	Components								Possible
	1	2	3	4	5	6	7	8	
A	13	9	0	0	0	0	0	0	16
Cc	4	0	0	0	0	0	0	0	8
Pos	2	0	0	3	0	0	0	0	8
Rej	8	10	0	0	3	0	0	0	16
C	0	5	0	1	0	0	0	0	8
E	0	3	0	0	0	0	3	0	8
Pi	12	9	0	0	0	0	0	0	16
Int	3	0	3	0	0	0	0	0	8
Cg	0	0	3	3	0	0	0	0	8
Hc	2	8	0	0	5	0	0	0	16
Id	1	0	0	0	0	0	0	4	8
Ne	1	1	0	0	2	4	0	0	8
AI	11	6	0	0	1	0	0	0	16
Ld	2	0	0	0	0	0	0	0	8
Anx	1	0	0	0	0	0	0	1	8
Hd	8	9	0	0	3	0	0	0	16
W	1	2	0	0	0	0	3	0	8
Ea	2	1	0	0	0	5	0	0	8

*Includes all items with loadings $\geq .40$ on any component.

Correspondence between father and mother components and CR-PBI scales

A cross classification of the items between the components identified in the preceding analyses and the eighteen original CR-PBI scales was developed. The cross classification for the father components appears in Table 4, and for the mother components in Table 5. In both tables, items that loaded on more than one component were counted in all cells in which they appeared.

Inspection of these tables indicated that there was no clearcut cross-identification between either the father or the mother components and the original CR-PBI scales. Only one of the total of 13 components drew more than 75% of its items from a single scale. This was the mother component labeled inconsistent discipline. The remaining components drew the majority of their items in approximately equal numbers from between two and eight scales.

Correspondence between father and mother components

For the most part, the father and the mother components identified in the preceding analyses were assigned different names. This was based on the belief that conceptual differences between most father and mother components outweighed their similarities. This conclusion received support from the cross classification of items between the components for each parent. As shown in Table 6, there was little correspondence between father and mother components. There was either little or no overlap between components, particularly when the direction of item loadings was considered, or a component for one parent was cross-identified with several components for the other. There were only two exceptions to this; the third and fifth father components each

TABLE 6

CROSS CLASSIFICATION OF ITEMS* BETWEEN THE
FATHER COMPONENTS AND THE MOTHER COMPONENTS[†]

		Father Components				
		1	2	3	4	5
Mother Components	1	34(15)	49(17)	5(5)	2(2)	-
	2	28(16)	22(22)	17(0)	3(1)	2(0)
	3	5(5)	1(0)	1(1)	-	-
	4	1(0)	3(3)	-	-	-
	5	4(1)	7(7)	-	-	-
	6	5(4)	2(0)	-	-	2(2)
	7	1(0)	5(4)	-	-	-
	8	3(2)	1(1)	-	-	-

*Includes all items with loadings $\geq .40$ on any component

[†]Number of shared items with loadings in the same direction are listed in parentheses next to the total number of shared items.

TABLE 7

INTERCORRELATIONS AMONG FATHER AND MOTHER VARIABLES

Father Variables					Mother Variables								
1	2	3	4	5	1	2	3	4	5	6	7	8	
1.000	.528	-.506	-.101	.020	-.116	.188	.311	.249	.244	-.087	.231	.170	1
	1.000	-.781	-.343	.011	-.248	.280	.337	.180	.329	-.045	.174	.261	2
		1.000	.565	.149	.312	-.347	-.257	-.098	-.308	.170	-.224	-.170	3
			1.000	.215	.199	-.161	.011	.030	-.045	.215	.016	.041	4
				1.000	-.135	.040	.073	-.050	.131	.432	-.097	.181	5
					1.000	-.911	-.474	-.139	-.822	.138	-.464	-.391	1
						1.000	.642	.369	.856	-.270	.612	.406	2
							1.000	.554	.648	-.207	.442	.359	3
								1.000	.363	-.359	.380	.074	4
									1.000	-.143	.575	.454	5
										1.000	-.392	.042	6
											1.000	.259	7
												1.000	8

Father
Variables

Mother
Variables

Father Variables					Mother Variables				
1.	Authoritative control				1.	Support			
2.	Control through love withdrawal				2.	Authoritarian control			
3.	Support				3.	Control through guilt/intrusiveness			
4.	Empathy				4.	Control through guilt/restrictiveness			
5.	Psychological autonomy				5.	Detached control			
					6.	Psychological autonomy			
					7.	Control through withdrawal from a relationship			
					8.	Inconsistent discipline			

cross-identified with a single mother component, the first and sixth, respectively. In both instances the same label was applied to the father and mother components (i.e., support and psychological autonomy).

Interrelations among father and mother components

Intercorrelation among all the parent variables are presented in Table 7. Examination of this table indicated that the highest inter-correlations were among variables for the same parent. For example, the correlation between father control through love withdrawal and father support was $-.78$, and mother support and mother authoritarian control was $-.91$. By comparison, correlations across parent variables were either a) exceedingly low, or b) distributed amongst variables at an approximately equivalent and moderate level. An example of the latter was the second father variable (control through love withdrawal) which correlated with four mother variables within a range of $.26$ to $.34$. On the basis of this, it may be concluded that the child's perception of one parent along a particular interaction dimension was largely independent of his perception of the other parent along a particular dimension.

Principal Components Analysis of the IPI

As noted in the method chapter, due to the number of items contained in the IPI, it was necessary to carry out the analysis of these items in two stages. In the first stage, the IPI items were divided in half to form two sets. For each resulting 172×172 matrix of item intercorrelations, a principal components analysis was performed using the MAP method with a varimax rotation of the component pattern. In the second stage, a third principal components analysis of a 198×198 matrix of

item intercorrelations was performed. The items used to form this matrix consisted of a) the five highest loading items (markers) for each component from Stage 1 which contained five or more items with a loading of .40 or above, and b) items which failed to load on any identified component at a level of .40 or higher. Again, the MAP method with a varimax rotation was performed.

Stage 1 Analyses

The first 172 items of the IPI were drawn from 24 of the original 28 scales. However, IPI scales labeled daydreaming frequency, night dreaming frequency, absorption in daydreaming, positive reactions in daydreaming, problem solving daydreams, bizarre improbable daydreams, mind wandering, achievement-oriented daydreams, hallucinatory-vividness of daydreams, curiosity:interpersonal, curiosity:impersonal, and boredom were the most highly represented.

The analysis of this set of items resulted in 22 components which together accounted for 65.7% of the total variance (Individual eigenvalues appear in Appendix C). The average squared interitem correlation was .077. Only items with a loading of .40 or higher on at least one component were considered. Further, only those components with five or more items above this cut-off point were considered. Table 8 presents the resulting seven components with items listed in order of the absolute size of their loadings.

Items 173-344 of the IPI were drawn from the following 16 IPI scales: acceptance of daydreaming, frightened reactions to daydreams, visual imagery in daydreams, auditory images in daydreams, present-oriented daydreams, future in daydreams, past in daydreams, fear of

TABLE 8

ITEMS LOADING $>.40$ ON THE VARIMAX ROTATED
COMPONENTS OF THE IPI (ITEMS 1-172)

Item Loading	Item Number	Item	IPI Scale
Component 1.			
.958	49	At times it is hard to keep my mind from wandering	Mw
.957	68	I often relive happy or exciting experiences in my daydreams	Pr
.954	55	Most things that are interesting to start with lose their appeal after a while	B
.950	53	Sometimes a thrill goes up my spine as I reflect on a great moment of triumph or achievement	Pr
.948	51	My daydreams are fairly realistic	
Additional Items: 66, 70, 46, 69, 57, 48, 45, 67, 47, 50, 61, 64, 54, 73, 72, 63, 60, 62, 65, 58, 52, 59, 71, 1, 56, 74, 24, 13, 22, 106, 9, 26, 4, 98, 3, 25, 33, 10, 154, 21, 20, 14, 75, 41, 135, 17, 28, 29, 84, 130, 38, 81, 42, 110, 117, 153, 32, 27, 6, 100, 158, 18, 40, 8, 127, 94, 129, 91, 82, 2, 148, 165, 96			
Component 2.			
.660	147	During a speech meeting, or lecture, I often "come to" realizing that I have not heard a word the speaker was saying	Mw
.658	146	I often daydream about event that happened over a year ago	Abs
.620	167	I picture myself not receiving a promotion I long waited for	Ff

Table 8:Continued

Item			IPI Scale
Loading	Number	Item	
Component 2. Continued			
.512	118	In my daydreams, the voices of people in my family are criticizing me	Hv
.449	148	I often have the same daydream over and over again	Abs

Additional Items: 131, 108, 142

Component 3.			
.840	15	I recall my dreams fairly clearly (never - once a night)	Ndf
.829	11	I recall my night dreams vividly (never - once a night)	Ndf
.816	19	I recall my dreams in some form (never - once a night)	Ndf
.769	7	I can recall a dream (never - once a night)	Ndf
.707	12	I recall my night dreams in the form of (vague impressions - clearly with great detail)	Ndf

Additional Items: 8, 16, 23, 4

Component 4.			
.763	87	I like to read about the personal lives of persons of public prominence	Ci
.738	85	My thoughts seldom drift from the subject before me	Mw
.732	95	I usually feel content and quite excited after a daydream	Pr

Table 8:Continued

Loading	Item Number	Item	IPI Scale
Component 4. Continued			
.730	93	In my fantasies, I receive an award before a large audience	Ach
.707	89	I often imagine myself as a different person or living a very different life than I am now	Bi

Additional Items: 90, 81, 78, 97, 82, 96

Component 5.			
.618	37	The visual images in my daydreams are so vivid I believe they are actually happening	Hv
.600	21	I recall interesting or elaborate dreams (rarely - once a night)	Ndf
.544	5	I recall or think over my daydreams (infrequently - many different times during the day)	Df
.490	17	I lose myself in active daydreaming (infrequently - many different times during the day)	Df
-.480	39	I often think about the lives of famous persons	Ci

Additional Items: 9, 38, 32, 35

Component 6.			
.627	77	My daydreams often leave me with feelings of sadness	Pr
.624	84	I seldom get really interested or involved in what I am doing	B

Table 8:Continued

Loading	Item Number	Item	IPI Scale
Component 6. Continued			
.578	92	I am the kind of person whose thoughts often wander	Mw
.524	88	Sometimes my thoughts keep coming back to the same things over and over again, no matter how much I try to change the subject	Abs
.510	137	The people in my daydreams are so true to life I often believe they are in the same room with me	Hv
Additional Items: 76, 91, 75, 83, 79, 80, 123			
Component 7.			
.731	126	Voices in my daydreams seem so distinct and clear that I'm almost tempted to answer them	Hv
.524	111	My fantasies sometimes surprise me by suggesting an answer to a problem which I could not work out	Ps
.431	171	In my fantasies I am resentful to a superior for reprimanding me without just cause	Hos
.430	137	People in my daydreams are so true to life I often believe they are in the same room with me	Hv
.400	136	In my daydreams I see myself as an expert whose opinion is sought by all	Ach

TABLE 9

ITEMS LOADING $\geq .40$ ON THE VARIMAX ROTATED
COMPONENTS OF THE IPI (ITEMS 173 - 344)

Item Loading	Item Number	Item	IPI Scale
Component 1.			
.772	286	I feel guilty in a daydream because of my cheating in a game or contest	Glt
.736	203	I daydream of volunteering as a subject for an important scientific experiment and winning fame for my bravery	Her
.735	240	I daydream about taking advantage of someone less fortunate than I and feeling guilty about it afterward	Glt
.699	214	I do not think about what the future will be like	Fut
.673	259	My thoughts often come to me slowly	Mr
Additional Items: 222, 312, 342, 300, 294, 191, 316, 258, 247, 239, 228, 289, 261, 193, 195, 237, 283, 177, 263, 213, 218, 328, 206, 298, 324, 204, 284, 288, 311, 282, 186, 307, 205, 281, 264, 293, 326, 314, 207			
Component 2.			
.680	302	I get restless if I have nothing to do	NES
.658	211	While working intently at a job, my mind will wander to thoughts about sex	Sx
.622	174	My thoughts are never on things far removed from my present-day problems	Prs
.621	216	There is always something going through my mind	Mr

Table 9:Continued

Item Loading	Item Number	Item	IPI Scale
Component 2. Continued			
.618	200	I am happiest when there is nothing I have to do and nowhere I have to go	NES
Additional Items: 212, 323, 291, 182, 268, 271, 280, 224, 192, 232, 225, 301, 235, 326, 183, 218			
Component 3.			
.591	335	I daydream about not living up to my parents expectations	Ff
.590	249	The effect of a frightening daydream will linger on for a long time	Fr
.449	217	My daydreams have such an emotional effect on me that I often react with fear	Fr
.442	179	I find myself imagining the unhappiness I caused my family because of my failure	Ff
.442	297	In my daydreams I am always afraid of being caught doing something wrong	Glt
Additional Items: 208			
Component 4.			
.631	173	I can see the people or things in my daydreams as if they are moving around	Vi
.471	197	I often "see" a large number of things or people in my fantasies	Vi
.467	228	I sometimes seem able to hear the characters in my fantasies talking to one another	Ai

Table 9:Continued

Item Loading	Item Number	Item	IPI Scale
Component 4. Continued			
.465	303	I can hear conversations between myself and other people very clearly in my mind during a daydream	Ai
.464	185	I sometimes have a very clear, lifelike picture of what I am imagining	Vi

Additional Items: 242, 252, 194

Component 5.

.617	277	In my idle thoughts, I fear not being able to meet the demands of my job	Ff
.582	332	I don't like to do dangerous or daring things	NES
.544	336	I feel uncomfortable when someone asks me a personal question	Sr
.536	265	I imagine myself not being able to finish a job I am required to do	Ff
.521	317	I imagine endangering myself in order to save my family	Her

Additional Items: 269, 241, 314

Component 6.

-.627	175	I never think at all about events or scenes of my early childhood	Pst
.487	221	Sometimes on my way to work, I imagine myself making love to an attractive person of the opposite sex	Sx
-.484	219	Even when I am listening to an interesting speaker, my mind wanders	D

Table 9:Continued

Loading	Item Number	Item	IPI Scale
Component 6. Continued			
.454	191	I imagine myself preventing a plot to kill a political candidate	Her
-.448	186	My present concerns are usually reflected in my daydreams	Prs
Additional Items: 176			
Component 7.			
.708	272	I never panic as a result of a daydream	Fr
-.694	329	In my daydreams, I show my anger towards my enemies	Hos
.646	331	I seldom find myself daydreaming about my younger days	Pst
-.439	284	Some of my fantasies are so terrifying I shake and shiver	Fr
-.403	330	I daydream more about my hopes for the far future than about my hopes for the present time	Prs
Component 8.			
.744	318	I like to observe my own reactions to things and to other people	Sr
.725	295	I am very much concerned with the present in my daydreams	Prs
.610	285	In my daydreams I am more likely to "relive" the past than to look ahead into the future	Pst
.497	307	I imagine myself in situations far removed from my day-to-day life	Prs

Table 9:Continued

Loading	Item Number	Item	IPI Scale
Component 8. Continued			
.439	340	Details from my day-to-day life are more clear and complete in my daydreams than memories of the past	Prs
Component 9.			
.533	250	I daydream about the first places in which I lived, the scenery and the events of my youth	Pst
.507	262	In my daydreams I feel guilty for having escaped punishment	Glt
.474	274	I imagine myself running away from someone who is going to punish me	Glt
.453	240	I daydream about taking advantage of someone less fortunate than I and feeling guilty about it afterward	Glt
.400	339	When I am deeply engrossed in my work it is difficult for someone to catch my attention	D

failure daydreams, hostile daydreams, sexual daydreams, heroic daydreams, guilt daydreams, mentation rate, distractibility, need for external stimulation, and self-revelation. Each of these scales received approximately equal representation.

Analysis of these items resulted in 18 components which together accounted for 51.3% of the total variance (Individual eigenvalues appear in Appendix C). Interitem correlations tended to be quite low with an average squared correlation of .026. Again, only those components with a minimum of five items loading at or about .40 were considered. The resulting nine components are presented in Table 9.

Stage 2 Analysis

A total of 198 items were included in this stage of the analysis. This set consisted of markers for each component identified in the previous analyses and those items which failed to load on any component at a level of .40 or higher. The analysis of this reduced set of IPI items resulted in 20 components which accounted for 49.4% of the total variance. Interitem correlations were very low with an average squared correlation of .018. As in previous analyses, only those items which loaded at or above .40 were considered. Table 10 presents these items listed by component in order of the absolute size of their loadings. As can be seen, only nine components, accounting for 32.9% of the total variance, appear in this table (Eigenvalues for the first 25 components appear in Appendix C). The remaining 11 components were too poorly defined to be considered; that is, they consisted of fewer than five items with loadings at or above the .40 level.

Emotional tone of daydreaming. The first component was bipolar and consisted of 22 items. The ten highest loading items were markers for the first components identified in each of the stage 1 analyses. Further, two additional items were markers for the second component in the analysis of items 173-344. Thus, this component represented a total of 154 items with at least one item from every IPI scale.

The content of items represented by this component generally related to the affective quality of imaginal activity. Specifically, positively loaded items suggested an individual with an active fantasy life and a generally positive approach to such activity. For this individual, daydreams consist of enjoyable experiences (e.g., achievement, sex) which serve to stimulate and arouse him/her. Moreover, while daydreams may be somewhat fantastic in nature, they are more typically fairly realistic and are used for anticipating the future and for problem solving.

The content of negatively loaded items suggested a strikingly different orientation toward imaginal activity. For this individual, daydreams take on a strongly negative, ethical tone. Specifically, the content of daydreams revolve around guilt, self-questioning, fears of not meeting others expectations, and hostility. The only potentially positive quality to these experiences is heroism. However, these fantasies tend to be characterized by danger and aggression. As would be expected from the above, the individual tends to view his imaginal activity as neither worthwhile nor interesting, and often reacts to it with fright.

TABLE 10

ITEMS LOADING $>.40$ ON THE VARIMAX
ROTATED COMPONENTS OF THE IPI

Item Loading	Item Number	Item	IPI Scale
Component 1. Emotional tone of daydreaming			
.922	51	My daydreams are fairly realistic	Bi
.917	55	Most things that are interesting to start with lose their appeal after a while	B
.907	49	At times it is hard for me to keep my mind from wandering	Mw
.904	53	Sometimes a thrill goes up my spine as I reflect on a great moment of triumph or achievement	Pr
.903	68	I often relive happy or exciting experiences in my daydreams	Pr
-.829	286	I feel guilty in a daydream because of my cheating in a game or contest	Glt
-.791	240	I daydream about taking advantage of someone less fortunate than I and feeling guilty about it afterward	Glt
-.760	214	I do not think about what the future will be like	Fut
-.718	203	I daydream of volunteering as a subject for an important scientific experiment and winning fame for my bravery	Her
-.610	259	My thoughts often come to me slowly	Mr
.489	199	I imagine myself to be physically attractive to people of the opposite sex	Sx

Table 10:Continued

Item			IPI Scale
Loading	Number	Item	
Component 1. Continued			
.489	296	I sometimes daydream about people and places I was familiar with when I was younger	Pst
-.488	80	Some of the voices in my thoughts are threatening or frightening	Hv
.470	190	I think about how "the world of the future" will look	Fut
-.461	114	The things that happen in my daydreams are often extremely strange and unusual	Bi
.425	327	When I do hear voices in my thoughts, they are not really very clear or recognizable	Ai
.422	308	I think more about "here-and-now" than about yesterday	Pst
.422	170	When people speak in my daydreams, I cannot really hear their voices	Ai
.419	216	There is always something going through my mind	Mr
-.417	125	I can get a fresh approach to an old problem almost at once during what begins as an idle daydream	Ps
-.404	71	My daydreams often leave me with feelings of sadness	Pr
.401	211	While working intently at a job, my mind will wander to thoughts about sex	Sx
Component 2. Absorption in daydreaming			
.632	147	During a speech, meeting, or lecture I often "come to" realizing that I have not heard a word the speaker was saying	Mw

Table 10:Continued

Loading	Item Number	Item	IPI Scale
Component 2. Continued			
.599	189	A really original idea can sometimes develop from a really fantastic daydream	Acc
.548	167	I picture myself not receiving a promotion I long waited for	Ff
.545	310	I do not think about my day-to-day affairs	Prs
.538	180	When alone, thoughts do not stop racing through my mind	Mr
.525	210	I prefer to keep my personal thoughts and feelings to myself	Sr
.525	223	Because daydreaming often takes me away from my work, I try to avoid it even when I have no specific task to complete	Acc
.508	295	I am very much concerned with the present in my daydreams	Prs
.478	299	My thoughts are of the future rather than of the past	Fut
.461	318	I like to observe my own reactions to things and to other people	Sr
.431	277	In my idle thoughts, I fear not being able to meet the demands of my job	Ff
.424	332	I don't like to do dangerous or daring things	NES
.420	146	I often daydream about events that happened over a year ago	Abs
.406	131	My imagination often goes around and around in the same circle	Abs

Table 10:Continued

Loading	Item Number	Item	IPI Scale
Component 3. Guilt (parental) daydreams			
.555	335	I daydream about not living up to my parents' expectations	Ff
.551	297	In my daydreams I am always afraid of being caught doing something wrong	Glt
.531	249	The effect of a frightening daydream will linger on for a long time	Fr
.483	251	I often imagine that someone else knows of the things I've done wrong and holds them against me	Glt
.457	179	I find myself imagining the unhappiness I caused my family because of my failure	Ff
.453	248	I think about saving the life of a drug addict	Her
.420	338	I daydream of clashing with my parents over trivial matters	Hos
Component 4. Worried-obsessive daydreams			
.563	92	I am the kind of person whose thoughts often wander	Mw
.562	88	Sometimes my imagination keeps coming back to the same things over and over again, no matter how much I try to change the subject	Abs
.548	83	I imagine solving all my problems in my daydreams	Ps
.538	77	My daydreams often leave me with feelings of sadness	Pr
.464	109	Sometimes a daydream will make me so upset that I feel like crying	Abs

Table 10:Continued

Loading	Item Number	Item	IPI Scale
Component 4. Continued			
.438	151	Some of my daydreams are so powerful that I just can't take my attention away from them	Abs
.418	123	I often wonder about the life of a person I happen to see standing at a window of an apartment building	Ci
Component 5. Pleasant-controlled daydreams			
.591	124	My daydreams often leave me with a warm, happy feeling	Pr
.565	166	I picture myself as I will be several years from now	Fut
-.542	219	Even when I am listening to an interesting speaker, my mind wanders	D
-.536	175	I never think at all about events or scenes of my early childhood	Pst
.476	140	My fantasies usually provide me with pleasant thoughts	Pr
-.455	176	I find that sitting home is a nice way to pass the time	NES
.437	152	I do not like to visit factories and manufacturing plants	Cm
.405	221	Sometimes on the way to work, I imagine myself making love to an attractive person of the opposite sex	Sx
.400	304	I like to talk about personal things	Sr

Table 10:Continued

Loading	Item Number	Item	IPI Scale
Component 6. Vividness of night dream recall			
.832	11	I recall my night dreams vividly (never - once a night)	Ndf
.818	15	I recall my dreams fairly clearly (never - once a night)	Ndf
.793	19	I recall my dreams in some form (never - once a night)	Ndf
.786	7	I can recall a dream (never - once a night)	Ndf
.707	12	I recall my night dreams in the form of (vague impressions - clearly with great detail)	Ndf
Component 7. Curiosity-achievement daydreams			
.709	93	In my fantasies, I receive an award before a large audience	Ach
.706	87	I like to read about the personal lives of persons of prominence	Ci
.706	95	I usually feel content and quite excited after a daydream	Pr
.703	85	My thoughts seldom drift from the subject before me	Mw
.688	89	I often imagine myself as a different person or living a very different life than I am now	Bi
Component 8. Prospective daydreaming			
.658	200	I am happiest when there is nothing I have to do and nowhere I have to go	NES
.575	126	Voices in my daydreams seem so distinct and clear that I'm almost tempted to answer them	Hv

Table 10:Continued

Loading	Item Number	Item	IPI Scale
Component 8. Continued			
.561	174	My thoughts are never on things far removed from my present day-to-day problems	Prs
.561	211	While working intently at a job, my mind will wander to thoughts about sex	Sx
.462	178	I am more likely to think about tomorrow than wonder about yesterday	Fut
.460	164	I enjoy arguing with someone who knows a lot	NES
.447	111	My fantasies sometimes surprise me by suggesting an answer to a problem which I could not work out	Ps
.433	302	I get restless if I have nothing to do	NES
Component 9. Distractibility			
.617	181	I will not allow myself to think of some things, knowing how upset I can become when I do	Fr
.581	132	I have difficulty in maintaining concentration for long periods of time	Mw
.548	187	My daydreams about love are so vivid, I actually feel they are occurring	Sx
-.462	160	My attention is seldom diverted by what others around me are doing	D
-.452	139	I have often wondered how a bird is able to fly	Cm
.440	155	In my daydreams, I fear meeting new responsibilities in life	Ff

Absorption in daydreaming. Fourteen items loaded on the second component in this analysis. Of these, four were markers for the second component in the analysis of items 1-172, and two for the fifth component in the analysis of items 173-344. This component, thus, represented a total of 21 items drawn from 13 IPI scales.

In contrast to the first component, the items loading on this component did not appear to refer to any specific daydream content. Less than one-third were content-related, and these were about evenly divided between those which were positive and negative in nature. Moreover, items did not suggest any particular time orientation in daydreaming (i.e., past, present, future). Rather, the content of items comprising this component related to the extent to which an individual is oriented towards and becomes absorbed in ideational activity. Specifically, it was characterized by an emphasis on involvement in such activity to a degree whereby daydreams are experienced as real occurrences and elicit some type of emotional reaction. A further quality of this involvement was that daydreaming is also experienced as being nonvolitional. This latter quality is evident in the following item: "During a speech, or lecture I often 'come to' realizing that I have not heard a word the speaker was saying."

Guilt (parental) daydreams. The third component consisted of seven items. This component bore some similarity to the first in that items reflected a negative affective quality in the content of daydreams. However, the content of this component was far more circumscribed. With only a single exception, items loading on this component referred to imaginal activity involving fears of clashing with parental figures, not

fulfilling their expectations, or being caught in wrongdoing. Overall, the quality of this component is well summarized by the following item: "I find myself imagining the unhappiness I caused my family because of my failure."

Worried-obsessive daydreams. Seven items loaded on the fourth component. As with the preceding component and most of the remaining components in this analysis, this appeared to represent a rather limited dimension of ideational activity. The nature of this component is reflected in the following items: "Sometimes my imagination keeps coming back to the same things over and over again, no matter how much I try to change the subject," "My daydreams often leave me with feelings of sadness." In other words, this component referred to ideational activity characterized by obsessive worry.

Pleasant-controlled daydreams. This component consisted of five items and was not clearly defined. The items suggested imaginal activity of varied, but generally pleasant, content. Further, the pattern of item loadings suggested that a certain degree of control is exerted over such activity. Thus, one possible interpretation was that that component represented imaginal activity which the individual uses as a means of diversion during periods of inactivity.

Vividness of night dream recall. This component consisted of markers for the third component in the analysis of items 1-172. Thus, nine of the 12 items from the IPI scale labeled night dreaming frequency were represented by this component. Inspection of the content of both those items which loaded and failed to load on this component suggested, however, that it would be more appropriately termed vividness of night

dream recall. Of the items loading on this component, two-thirds related to how clearly dreams are recalled (e.g., "I recall my night dreams vividly"). Consistent with this, the same proportion of unloaded scale items referred to the frequency of night dream occurrence.

Curiosity-achievement daydreams. Five items, which were markers for the fourth component in the analysis of items 1-172, loaded on the seventh component. It, thus, represented a total of 11 items. This component was not clearly defined. The content generally related to curiosity, both interpersonal and impersonal, and enjoyable fantasies of achievement. The following items are representative: "I like to read about the personal lives of persons of prominence," "I am interested in the kinds of highly skilled machine operations that can be successfully duplicated by completely automatic equipment," "In my fantasies, I receive an award before a large audience."

Prospective daydreaming. This component contained eight items, four of which were markers for a component identified in Stage 1. (i.e., the second component in the analysis of items 173-344). A total of 25 items from 13 IPI scales were thus represented. The scales receiving the highest level of representation on this were those for need for external stimulation, future in daydreams, and sexual daydreams. Representative items include: "I get restless when I have nothing to do," "I find myself imagining what I will be doing a year from now," "My sexual daydreams are very vivid and clear in my mind," "Daydreaming is a common experience for great scientists and artists as well as for the average person." As these items would suggest, this component referred to imaginal activity which is both frequent and vivid, and while varied

in content, is typically prospective in nature. Further, while this anticipation of the future may have practical significance, it is more typically employed as a means of self-distraction and self-stimulation.

Distractibility. This is the final component presented in Table 10. It consisted of six items, the content of which largely referred to distractibility, and fears or concerns. The following two items are representative: "I have difficulty in maintaining concentration for long periods of time," "In my daydreams, I fear meeting new responsibilities in life."

Correspondence Between Imaginal Activity Components and IPI Scales

Table 11 shows the cross classification of items between components identified in the present analysis and the original IPI scales. Listed for each component are all items with a loading of .40 or higher in the Stage 2 analysis, and items from Stage 1 analysis represented by markers.

As indicated in this table, there was little correspondence between components and IPI scales. No component drew a preponderance of its items from any one scale. Moreover, items from 26 of the 28 IPI scales loaded on more than one component; the two exceptions were the scales labeled Daydreaming Frequency and Visual Imagery in Daydreams.

Development of Parent-Child Interaction and Imaginal Activity Scales

Due to the lack of correspondence between the components identified in the present study and the original scales of both the CR-PBI and IPI it was necessary to develop new scales prior to testing the hypotheses regarding relationships between parent-child interactions and imaginal

TABLE 11

CROSS CLASSIFICATION OF ITEMS* BETWEEN THE
COMPONENTS OF THE IPI AND THE ORIGINAL SCALES

IPI Scales	Components									Possible
	1	2	3	4	5	6	7	8	9	
Df	11	0	0	0	0	0	0	0	0	12
Ndf	5	0	0	0	0	9	0	0	0	12
Abs	9	4	0	3	0	0	1	0	0	20
Acc	6	2	0	0	0	0	0	2	0	12
Pr	9	0	0	1	2	0	2	0	0	12
Fr	3	0	1	0	0	0	0	0	1	12
Vi	2	0	0	0	0	0	0	0	0	12
Ai	6	0	0	0	0	0	0	1	0	12
Ps	9	0	0	1	0	0	1	1	0	12
Prs	4	2	0	0	0	0	0	2	0	12
Fut	7	1	0	0	1	0	0	4	0	12
Pst	4	1	0	0	1	0	0	0	0	12
Bi	5	0	0	0	0	0	1	0	0	12
Mw	5	1	0	1	0	0	1	0	1	12
Ach	5	0	0	0	0	0	1	0	0	12
Hv	5	1	0	0	0	0	1	1	0	12
Ff	4	2	2	0	0	0	0	0	1	12
Hos	6	1	1	0	0	0	0	1	0	12
Sx	4	0	0	0	1	0	0	3	1	12
Her	6	0	1	0	0	0	0	1	0	12
Glt	6	0	2	0	0	0	0	1	0	12
Ci	5	0	0	1	0	0	1	0	0	12
Cm	5	0	0	0	1	0	1	0	1	12
B	7	0	0	0	0	0	1	0	0	12
Mr	8	1	0	0	0	0	0	2	0	12
D	1	1	0	0	1	0	0	0	1	12
NES	4	2	0	0	1	0	0	5	0	12
Sr	3	2	0	0	1	0	0	1	0	12

*Includes all items with loadings $>.40$ on any component.

TABLE 12

SUMMARY OF PARENT-CHILD INTERACTION
AND IMAGINAL ACTIVITY SCALES*

Father Scales

Authoritative Control = 1r+2r+6r+10r+13r+21r+24r+26r+28r+29r+33r+34r+36r+
37r+39r+41r+46r+47r+52r+55r+57r+61r+67r+74r+79r+81r+86r+92r+93r+
95r+96r+97r+101+102+103+104+105+106+107+108+109+110+111+112+113+
114+115+116+117+118+119+120+121+122+123+124+125+126+127+128+130+
131+132r+133+134+135+137+138+139+140+141+142+143r+144+145r+146+
147r+148+150+152+166+174

Love Withdrawal = 5r+9r+16r+27+28+29+30+31+32+33+34+35+36+37+38+39+40+41+
42+43+44+45+46+47+48+49+50+51+52+53+54+56+57+58r+59+60+61+63+64+65+
67+68+69r+70+71r+72+73r+74+75+83+84+87+99+101r+102r+105r+106r+109r+
113r+117r+120r+121r+122r+125r+129r+133r+137r+141r+144r+155+157r+
161r+163+175+176+179+187+191

Support = 149+151r+153+157+159r+160r+161+163r+165+169+171r+173+174+177+
181+183r+184r+185+187r+189

Empathy = 82+84+85+89+98

Psychological Autonomy = 154+164+172r+178+188+190

Mother Scales

Support = 2+3r+5+6+7r+9+11r+13+14+15r+17+21+23r+24+25+26+27r+29+33+34+36+
37+39r+41+43r+45+47r+49+50+51r+53+54+57+59r+61+62+63r+65+67r+68r+
69r+70r+71r+72r+73r+74r+81+83r+85+89+97+102+105+106+109+113+117+
121+125+129+133+137+141+145+149+155r+157+159r+161+176r+183r+191r

Authoritarian Control = 75+76+77r+79+83+84+85r+87+89r+91+93r+95+97r+99+
100+101r+103+107+108+109r+111+113r+115+117r+119+121r+123+124+125r+
127+129r+131+133r+135+136+139+141r+143+145r+147+148+149r+151+155+
157r+159+160+161r+163+164r+165r+167+169r+171+172+173r+175+179+181r+
183+184+185r+187+189r+191+192r

Guilt/Intrusiveness = 90+102+114+126+138+162+174

Table 12:Continued

Mother Scales - Continued

Guilt/Restrictiveness = 14+18+38+42+52+62+66

Detached Control = 7+15+19+20+21r+23+31+39+43+44+47+55+59+63

Psychological Autonomy = 96+116+120+140+144+164+168+188+192

Withdrawal from Relations = 12+16+36+40+60+64

Inconsistent Discipline = 11+80+104+128+166r+176

Imaginal Activity Scales

Emotional Tone = 1+2+3+4+6+8+10+13+14+17+18+20+21+22+24+25+26+27+28+29+
 30+32r+33+38+40+41+42+45+46+47+48+49+50+51+52+53+54+55+56+57+58+59+
 60+61+62+63+64+65+66+67+68+69+70+71+72+73+74+75r+77r+80r+81r+82+
 84r+91+94r+96r+98r+100r+106+110+114r+116r+117+125r+127r+129+130+
 135+148+153r+154+156r+158+165+170+177r+182+183+186+190+191r+192+
 193r+195r+199+203r+204r+205r+206r+207r+211+212+213r+214r+216+218r+
 222r+224+225+228r+232+233+235r+237r+239r+240r+247r+258r+259r+261r+
 263r+264r+268+271+280+281+282+283+284r+286r+288+289r+291+293r+294r+
 296+298r+300r+301+307r+308+311+312r+314+316r+323+324r+326+327+382r+
 342r

Absorption = 108+131+142+146+147+148+163+167+180+189+210+223+241+269+277+
 295+299+310+314+318+332

Guilt Daydreams = 179+248+249+251+297+335+338

Worried-Obsessive Daydreams = 77+83+88+92+109+123+151

Pleasant-Controlled Daydreams = 124+140+152+166+175r+176r+219r+221+304

Night Dream Recall = 4+7+8+11+12+15+16+19+23

Curiosity-Achievement Daydreams = 78+81+82+85+87+89+90+93+95+96+97

Prospective Daydreaming = 111+126+164+174+178+182+183+192+211+218r+224+
 225+232+233+235r+268+271+280+291+301+302+323+326

Table 12:Continued

Imaginal Activity Scales - Continued

Distractibility = 132+139r+155+160r+181+187

Daydream Frequency = 1+2+3+5+6+9+10+14+17+18+20+24

*An "r" following an item number indicates that the S's response to that item was reversed prior to addition. For CR-PBI items, reversal was done by subtracting the response value from 4 (i.e., 4 - X); for IPI, by subtraction from 6 (i.e., 6 - X).

activity. With regard to the components for the father and mother response forms of the CR-PBI, this process was relatively straightforward - for each component listed in Tables 2 and 3, all items with a loading of .40 or higher were included in the unweighted summation; if an item loaded positively on a component, the S's response was added directly; if an item loaded negatively on a component, the S's response was reversed before being added. In developing imaginal activity scales for each component listed in Table 10, the same general procedure was followed. However, each scale was the unweighted sum of the items loading at .40 or above, and the items from Stage 1 analyses represented by markers. Again, the sign of the item loading determined whether the S's response was added directly or reversed prior to summation. In addition to the above, a daydream frequency score was calculated for each S using items from the original IPI scale. A summary of all scales is presented in Table 12.

Analysis of Relationships Between Imaginal Variables and Parent Variables

Pearson Correlations

Zero order correlations between imaginal activity variables and parent-child interaction variables are presented separately for male and female Ss in Tables 13 and 14. The initial examination of these matrices indicated that the correlations were generally quite low; no relationship accounted for more than 8% of the variance and only a small proportion of the correlations achieved statistical significance. Examination of both father and mother variables by sex of S indicated that correlations were of approximately equal magnitude. There was a

slight tendency, however, for the mother variables to be correlated more highly than father variables in the male sample, and for the reverse in the female sample.

Inspection of correlations which achieved significance indicated that, for both fathers and mothers, parent variables referring to control were most consistently related to imaginal variables. There were, however, a limited number of significant correlations between variables relating to support and psychological autonomy, and imaginal variables. In contrast to correlations involving control variables, these tended to be negative. Thus, in general, it would appear that a controlling and somewhat distancing parenting style was associated with imaginal activity.

Stepwise Multiple Regression

Each of the ten imaginal variables was analyzed using forward stepwise multiple regression techniques. In order to test for differential effects of parental behavior on imaginal activity as a function of the sex of parent, as well as the sex of the child, separate analyses were performed for the following five groups: males' reports of their fathers' behavior, females' of fathers', males' of mothers', and females' of mothers'. Due to the large number of analyses this entailed, only those stepwise regressions resulting in significant relationships ($p .05$) will be considered.

Absorption in daydreaming. For absorption, there was only one significant correlation with any of the dependent variables. Specifically, the regression of absorption on females' reports of paternal behavior was

INTERCORRELATIONS AMONG PARENT VARIABLES
AND IMAGINAL VARIABLES (MALE SUBJECTS)

	Emot. Tone	Absorp.	Guilt Dd	Wor.-Obs. Dd	Pleasant- Control	Nd Recall	Cur.- Ach.	Prosp. Dd	Distract. Dd	Freq.
Authoritative Control	.043	.070	.187	.231*	.194	.138	.188	.175	.230*	.217*
Love Withdrawal	-.001	.010	.045	.048	.082	.065	-.040	.069	.093	.141
Support	-.022	-.084	-.205*	-.190	-.060	-.114	-.088	-.129	-.032	-.173
Empathy	-.020	-.081	.054	-.025	.127	.050	-.040	-.053	.055	.002
Psychol. Autonomy	-.060	.140	-.035	.061	.026	-.119	.034	.055	.061	-.051
Support	.141	-.023	-.057	.010	.055	-.033	.071	-.110	-.168	.119
Authoritarian Control	-.087	.017	.125	.023	.063	.072	-.036	.237*	.193	-.132
Guilt/ Intrusiveness	-.011	-.040	.286**	.117	.268**	.053	.147	.250*	.220*	-.010
Guilt/ Restrictiveness	-.031	-.079	.228*	-.011	.217*	.149	.076	.187	.102	-.013

Table 13:Continued

	Emot. Tone	Absorp.	Guilt Dd	Wor.-Obs. Dd	Pleasant- Control	Nd Recall	Cur.- Ach.	Prosp. Dd	Distract.	Dd Freq.
Detached Control	-.045	-.111	.061	.038	.112	.095	-.071	.121	.215*	-.017
Psychol. Autonomy	-.077	.086	-.055	-.020	-.081	-.108	.232*	-.033	.066	-.060
Withdrawal Relationship	-.010	-.001	.213*	.142	.142	.054	-.086	.223*	.178	-.010
Inconsistent Discipline	-.055	-.064	.015	.034	.081	.122	-.074	.101	.089	-.018

*p<.05
**p<.01

INTERCORRELATIONS AMONG PARENT VARIABLES
AND IMAGINAL VARIABLES (FEMALE SUBJECTS)

	Emot. Tone	Absorp.	Guilt Dd	Wor.-Obs. Dd	Pleasant- Control	Nd Recall	Cur.- Ach.	Prosp. Dd	Distract.	Dd Freq.
Authoritative Control	.105	.169*	.245**	.186*	-.013	-.083	.175*	.186*	.117	.175*
Love Withdrawal	.024	.124	.261**	.191*	.048	-.005	.069	.119	.065	.140
Support	-.009	-.103	-.228**	-.189*	.090	.075	-.030	-.071	-.055	-.073
Empathy	.046	.097	.014	.022	.107	-.049	.064	.092	.095	-.093
Psychol. Autonomy	.021	.096	.107	.046	.082	-.062	.123	.043	.123	.066
Support	.074	.032	-.097	-.026	.059	.173*	.076	.031	-.014	-.029
Authoritarian Control	-.048	.021	.116	.043	-.001	-.153	-.028	.043	.004	.044
Guilt/ Intrusiveness	.022	.054	.270 ⁺	.022	.105	-.166*	.045	.062	.020	-.018
Guilt/ Restrictiveness	.047	-.003	.093	-.055	.174*	.062	.116	.021	-.056	.021

Table 14:Continued

	Emot. Tone	Absorp.	Guilt Dd	Wor.-Obs. Dd	Pleasant- Control	Nd Recall	Cur.- Ach.	Prosp. Dd	Distract. Dd	Freq.
Detached Control	.012	.042	.183*	.041	.030	-.171*	.018	.049	.042	.082
Psychol. Autonomy	-.032	.039	.073	.003	-.060	.086	.076	-.035	.013	-.022
Withdrawal Relationship	.084	.074	.061	.068	.050	-.157	-.026	.132	.047	.080
Inconsistent Discipline	-.055	.033	.130	.127	-.016	-.177*	-.126	-.023	.018	.005

*p<.05
**p<.01
+p<.001

significant for the first variable, authoritative control ($R^2=.029$, $F=4.03$, $df=1,137$; $p<.05$). The addition of a second variable into the regression equation did not produce a significant incremental increase in the R^2 .

Guilt (parental) daydreams. An examination of regressions for this imaginal variable indicated significant correlations with the father variables for both males and females. For both sexes, there was a significant increment in R^2 only through the first step. With regard to males, the first variable entered was support ($R^2=.042$, $F=3.85$, $df=1,88$; $p<.05$). By comparison, for females, the first father variable to be entered was control through love withdrawal ($R^2=.068$, $F=10.03$, $df=1,137$; $p<.05$).

The regression of guilt (parental) daydreams on the mother variables was similar to that for the father variables in that, for both sexes, there was no significant increment in R^2 beyond the first step. For males, as well as females, the first variable entered was control through guilt/intrusiveness ($R^2=.082$, $F=7.82$, $df=1,88$; $p<.05$ and $R^2=.073$, $F=10.75$, $df=1,137$; $p<.05$, respectively).

Worried-obsessive daydreams. For both sexes, the regression of this imaginal variable on the father variables, alone, was significant. Again, there was no significant incremental increase in R^2 beyond the first step. For males, the first variable to be entered was authoritative control ($R^2=.054$, $F=4.98$, $df=1,88$; $p<.05$) while for females this variable was control through love withdrawal ($R^2=.036$, $F=5.18$, $df=1,137$; $p<.05$).

Pleasant-controlled daydreams. In contrast to the above, the regression of pleasant-controlled daydreaming on the mother, but not the father, variables was significant for both sexes. In the male sample, the entry of control through guilt/intrusiveness resulted in an increment in R^2 of .072 ($F=6.80$, $df=1,88$; $p<.05$). For females, the entry of control through guilt/restrictiveness provided an increase in R^2 of .030 ($F=4.28$, $df=1,137$; $p<.05$). The entry of a second mother variable did not produce a significant incremental increase for either males or females.

Vividness of night dream recall. Examination of the regressions for night dream recall indicated that, for females alone, the entry of the first mother variable resulted in a significant increment in R^2 . The addition of variables beyond inconsistent discipline did not produce any further increments. The R^2 at the first step was .031 ($F=4.42$, $df=1,137$; $p<.05$).

Curiosity-achievement in daydreams. For females, the regression of curiosity-achievement in daydreams on the father variables was significant for the first variable, authoritative control ($R^2 = .031$, $F=4.34$, $df=1,137$; $p<.05$). By comparison, for males, the regression for mother variables resulted in a significant increment in R^2 for the first step. The first step was for psychological autonomy, and the R^2 at this step was .054 ($F=5.01$, $df=1,88$; $p<.05$).

Prospective daydreaming. The regressions of prospective daydreaming on the parent variables were similar to those for the preceding imaginal variable; that is a significant correlation with father variables resulted only for females, while a significant

correlation with mother variables occurred only for males. In both instances only the first step resulted in a significant increment in R^2 . For females, the first step was for the father variable authoritative control ($R^2=.035$, $F=4.93$, $df=1,137$; $p<.05$). The first step for males was the mother variable psychological control through guilt/intrusiveness ($R^2=.063$, $F=5.89$, $df=1,88$; $p<.05$).

Distractibility. For males alone there was a significant correlation between this imaginal variable and both the father and the mother variables. With respect to the father the addition of variables into the regression equation beyond the first (authoritative control) did not produce a significant incremental increase in the R^2 of .053 ($F=4.91$, $df=1,88$; $p<.05$). Similarly, for the mother variables, only the entry of psychological control through guilt/intrusiveness resulted in a significant increment in R^2 ($R^2=.049$, $F=4.49$, $df=1,88$; $p<.05$).

Frequency of daydreaming. For both sexes, the regression of frequency of daydreaming on the father variables was only significant for the first variable, authoritative control. The amount of variance accounted for by the father variable was somewhat larger for males ($R^2=.047$, $F=4.36$, $df=1,88$; $p<.05$) than for females ($R^2=.031$, $F=4.32$, $df=1,137$; $p<.05$).

Summary of multiple regressions. The multiple regression analyses performed added little to the information already provided by the Pearson correlations. This was due to the fact that predictive power was not significantly enhanced by the addition of parent variables;

that is, none of the regression analyses resulted in a significant increase in variance accounted for beyond the entry of the first variable.

VI

DISCUSSION

Given the rather large number of analyses presented in the Results chapter, each major section will be discussed separately. First, principal components analyses were employed to define the domain of parent-child interactions for the present sample. Relationships between the results obtained and previous research on the CR-PBI are discussed. Additional investigations of the dimensions of parent-child interaction are also presented in an effort to explain inconsistencies. Next, principal components analyses were used to define the domain of imaginal activity for the present sample. The results obtained are discussed in relation to previous analyses of the IPI, as well as theoretical conceptualizations of this domain. Finally, findings pertaining to the relationships between parent-child variables and imaginal variables are considered. The results of this study are discussed in relation to the present body of literature that relates to the antecedents of cognitive development, in general, and imaginal development, in particular. Implications for future research are considered.

The Domain of Parent-Child Interactions

As originally constructed, the Children's Report of Parental Behavior Inventory purports to measure eighteen general characteristics of parent-child interactions. Analyses of the scales representing these

characteristics (e.g., Burger & Armentrout, 1971; Cross, 1969; Schaefer, 1965b) have consistently indicated that the domain of parent-child interactions may be defined by a three-dimensional model. The first two dimensions of this model were bipolar and related to the extent of parental acceptance of the child and to the degree to which the parent controlled the child's behavior by direct means. The third dimension was unipolar and represented the extent to which the parent employed psychological pressure techniques to control the child. Findings further indicated that this model had equal validity for both mothers and fathers.

In the present study, item responses, rather than summated scale scores, were subjected to principal components analysis. The data derived from this analysis pertains to two interrelated questions:

- 1) To what extent can the a priori scales of the CR-PBI be supported?
- 2) To what extent is the three-dimensional model of parent-child interaction an artifact of the level of data analyzed?

With respect to the first question, the results of this investigation failed to support the present scoring of the CR-PBI. In general, the items comprising each of the 13 identified components were drawn in approximately equal numbers from between two and eight scales. There was only a single exception to this; the mother component labeled inconsistent discipline, which was comprised of five items, drew all but one of its items from the CR-PBI scale of the same name.

Given the above, it is not surprising that there were significant discrepancies between components identified in the present study and the model of parent-child interactions developed from the analysis of CR-PBI scales. Before considering these, however, it is important to briefly summarize the present findings.

With regard to the analysis of the father response form five components were identified. Of these, the first three were well defined. Specifically, the first father component, labeled authoritative control, appeared to represent a general control dimension which coupled regulation of the child's behavior with a limited degree of meaningful interaction and flexibility. The second component represented a style of control in which the child is made to feel obligated to conform in order to win back the love and affection of a disapproving parent. The third component was bipolar and related to the extent to which the parent accepts or rejects the child. In contrast to the preceding components, the fourth and fifth ones were rather poorly defined. The former consisted of only five items and was not clearly distinguishable from the third component in that it also referred primarily to paternal support. The latter, also consisting of five items, alluded to a parenting style whereby the child is allowed independence through a laxness in rule enforcement.

In contrast to the results for the father, analysis of the mother response form revealed eight components. The first, like the third father component, contrasted parent-child interactions characterized by affection, security and sharing with those characterized by rejection and hostile detachment. The second mother component represented strict control coupled with coolness and unresponsiveness. The next two components were both poorly defined and alluded to psychological control through instilling guilt in the child. Like the first two components, labeled support and authoritarian control, the fifth component was rather well defined. It represented interactions marked by control, fault-finding, and detachment, and was, thus, labeled detached control. The

remaining components identified in this analysis were all rather poorly defined and related to psychological autonomy, control through withdrawal from a relationship, and inconsistent discipline.

As is evident from this brief summary, there was only one major area of overlap between the present findings and the previously proposed model for parent-child interactions. Specifically, in all analyses the dimension of support, for both parents, appears to be represented as a continuum with one pole defined by the perception of the parent as affectionate, positively involved and accepting of individuation, and the other pole defined by rejection and hostile detachment. Such was not the case, however, for dimensions relating to parental control. In contrast to previous findings, direct and psychological styles of control were not represented as totally independent dimensions. Rather, such components as authoritative control (for the father) and authoritarian control (for the mother) combined rule-making with possessiveness, intrusiveness and the instilling of anxiety and guilt. Further, psychological control was not represented as a single, unified dimension. For the data relating to perceptions of the mother in particular, separate aspects of this style received individual representation. Finally, there was no dimension identified in the present analysis representing the extent of control exerted on the child by the parent. Instead, the regulation of behavior and the granting of autonomy either through laxness in rule enforcement or general permissiveness appeared as independent dimensions.

There is precedent in the literature for the type of findings obtained in the present study however. Interestingly, this is found

exclusively in the results of investigations analyzing subjects' responses to individual inventory items. As noted in the Results chapter, two dimensions identified by this analysis bore such striking similarities to parenting styles reported by Baumrind (1968) that her labels were employed; that is, the components labeled authoritarian control and authoritative control. Beyond this, Baumrind's analyses indicated a third dimension, labeled Permissive, which was described in the following manner:

To behave in a nonpunitive, acceptant. . . manner toward the child's impulses, desires, and actions. She makes few demands for household responsibility and orderly behavior. She allows the child to regulate his own activities as much as possible, avoids the exercise of control, and does not encourage him to obey externally-defined standards (Baumrind, 1968, p. 256).

As so defined, this parenting dimension closely corresponds to others labeled as psychological autonomy by Hower (1977) and the present author. Finally, in an analysis of selected CR-PBI items, Ellis, et al. (1976) reported on two dimensions relevant to this discussion. The first, represented a parenting style which, while not characterized by affection, was one in which parental disapproval was expressed by cutting off interaction with the child. The second dimension was represented by items relating to fault-finding, complaining, nonapproval, rejection, and attempts to control and change the child. In most respects, these dimensions are similar to components labeled in the present study as withdrawal from a relationship and detached control.

Despite this limited support for the findings obtained in this investigation relating to the dimensions of parent-child interactions, they must obviously be considered tentative. Replication with broader samples is required, particularly in view of the fact that many of the identified components are poorly defined. Just as obviously, however, the results of studies reporting parenting dimensions based on the analysis of scale scores must, at this point, also be regarded as tentative.

Before concluding this section of the discussion, an additional set of findings must be given direct consideration. As has already been alluded to, the content of components for the father and the mother differed in several important respects. Largely, these dissimilarities appeared to be related to the fact that for the mother, but not for the father, attempts at control are perceived by the child as expressions of nonacceptance; that is, the controlling mother is viewed as being, to varying degrees, rejecting. One possible explanation for this relates to the characteristics that predominate the perception of both parents. On the basis of both the present findings and the literature on sex-role stereotypes (Bakan, 1966; Bem, 1976; Erikson, 1964; Parsons & Bales, 1955) the central qualities in the perception of the mother are affectionate, compassionate, sympathetic, understanding, and warm. In contrast, the qualities which appear to characterize the perception of the father include aggressive, assertive, dominant, independent and forceful. Given the above, it follows that, for the father, the exercise of power would be both expected and accepted. For the mother, however, attempts at control occur within a different context and, consequently, may be

seen to imply a lack of acceptance or trust. However, as with previously discussed findings, further research is required to both substantiate observed differences between parents and to investigate potential explanations, if confirmed.

The Domain of Imaginal Activity

The two stage analysis of the items comprising the Imaginal Processes Inventory resulted in the identification of nine principal components. Of this number, three were rather well-defined and appeared to represent general dimensions of imaginal activity. The first, labeled emotional tone of daydreaming, was bipolar. The positive pole of this dimension related to daydreaming which is enjoyable, stimulating, fairly realistic, and is viewed by the individual as a productive aspect of his life. In contrast, the other pole represented a more generally negative approach to one's own fantasy activity, characterized by daydreams involving guilt, self-questioning and self-doubt. The second component was labeled absorption in daydreaming. For the individual scoring high on this dimension, daydreams would be experienced as both "real" and nonvolitional, and would elicit some type of emotional response. The third component was termed prospective daydreaming. As the label implies, this referred to vivid, future-oriented daydreams which serve the function of self-distraction and self-stimulation.

The remaining six components were, in most instances, less clearly defined and appeared to represent limited dimensions of daydream content and structure. For example, components were identified which related to such aspects of daydream content as guilt, and curiosity and achievement.

Further, such structural qualities as obsessiveness, control, and distractibility were represented in separate components. Finally, a component which referred to the vividness of night dream recall was identified.

These findings are, again, directly relevant to the dual issues of scale and model validity. With respect to the former question, only one component, vividness of night dream recall, exhibited a high degree of correspondence to an original IPI scale. This component consisted of nine of the 12 items from the scale labeled Night Dreaming Frequency. The remaining eight components each drew at least 75% of their items from between four and 18 IPI scales. On the basis of this, it would appear safe to conclude that there was no support for the present scoring of the IPI.

With regard to the second issue, Singer (1975, 1978) contends, on the basis of factor-analytic studies of IPI scales, that imaginal activity is characterized by three distinct styles. The first, labeled Positive-Vivid, relates to the enjoyment of vivid and absorbing fantasies; the second, Guilty-Dysphoric, involves ideational activity that is ethically toned with much self-doubt and self-criticism; the third, Mindwandering-Distractible, is generally characterized by fleeting, loosely connected fantasies. Further, it is contended (Giambra, 1974) that these patterns are highly stable across an extended age range.

The present findings, based on the analysis of item responses, generally failed to confirm Singer's model in several important respects. Perhaps the most apparent deviation related to the first component obtained. Contrary to Singer's conceptualization, it would seem that

the so-called "positive" and "negative" approaches to fantasy activity are not independent modes. Rather, they appear to represent the poles of a continuum relating to the affective quality of such activity. At a more general level, the present findings diverge from those previously reported in that the identified components represented qualitative aspects of the imagining experience rather than discrete styles or patterns. One possible implication of this is that imagining may be more highly varied than previously considered. For example, according to Singer's conceptualization, imaginal activity which elicits positive reactions from the individual is also characterized as absorbing and future oriented. By comparison, the present data allow for both positively-and negatively-toned imaginings to vary in terms of both the extent of subjective involvement and the degree of prospectiveness.

While these findings were generally divergent from Singer's perspective on imaginal activity, there were certain consistencies with other theoretical and empirical conceptualizations appearing in the literature. Perhaps the strongest support is found for the dimension labeled absorption in daydreaming. As will be remembered from a previous chapter, Shor (1939) has formulated imagining as the fading of the "generalized reality-orientation." According to him, a core feature of this process is the amplification of receptivity to internal sources of stimulation concurrent with the receding from awareness of external events. As a consequence of this, experiences may take on special meanings and reality.

Along similar lines, Klinger (1978) has proposed five dimensions of thought. Most relevant to the discussion at this stage is his

description of operant versus respondent thought. Klinger has operationalized fantasy and daydreaming as respondent thinking, and contrasted it with operant thinking in the following manner:

. . . operant thinking appears to differ from respondent thinking in that it is accompanied by a sense of volition, is checked against feedback concerning its effects, is evaluated according to its effectiveness in advancing particular goals, and is protected from drift and distraction by the thinker's deliberately controlling his or her attention (Klinger, 1978, pg. 235).

Quite clearly, these implied qualities of respondent thought are in accord with those found to characterize the dimension of absorption in daydreaming.

Confirmation of this dimension is also found at the empirical level in the work of Tellegen and Atkinson (1974). Specifically, their analysis of questionnaire items believed to be related to hypnotizability revealed a major factor which was labeled "Openness to Absorbing and Self-Altering Experiences." This factor was interpreted as a disposition for "total" attention involving the full commitment of available representational resources to the experiencing of the attentional object. Moreover, Tellegen and Atkinson suggested that two phenomena might be inherently correlated with this process. First, the attentional object would be experienced as present and real due to an inability to consider such qualifying cognitions as "this is only my imagination" or "this is not really happening." Second, external events would tend not to be noticed owing to the full commitment of the representational system to the object of attention.

While less extensive, theoretical support is also present for the identified component labeled prospective daydreaming. Specifically, the content of items with salient loadings on this component corresponds quite closely to Sarbin and Juhasz' (1970) description of the time-binding function of hypothetical instantiation. As will be remembered, this refers to the process of inhibiting overt behavior while the individual places himself in a wide variety of more or less hypothetical situations. This allows him to rehearse future acts and to examine and manipulate the specifics of present or past actions. While this function bears some semblance to thinking and remembering it differs in terms of the fact that the hypothetical situations need have no relationship to "reality."

There is little in the current literature which is directly relevant to the other components identified in this analysis. This is not particularly surprising, however, given their limited nature and their rather poor definition. Quite obviously, further investigation is required to substantiate and elaborate these dimensions. Of particular interest would be data relating to the night dream recall dimension. While studies have examined possible thematic and structural continuities that transcend the arousal continuum (Starker, 1978), little has been done to assess the exact nature of the relationship between waking and sleeping fantasy activity. The present findings suggest that these two aspects of inner experience may represent independent cognitive processes.

Relationships Between Parent-Child Interactions and Imaginal Activity

Analyses pertaining to the relationships between parent-child interaction variables and imaginal activity variables were rather disappointing. In most instances, relationships between these two sets of variables accounted for less than eight percent of the variance. Moreover, the results of multiple regression analyses indicated that predictive power was not substantially enhanced by the addition of variables to the predictor variable set. In that these analyses capitalize on chance variation in order to produce the highest possible correlation, it is possible that all relationships may be attributed to sample-specific covariation.

Given the above, no attempt will be made to interpret individual associations. Rather, the discussion will be limited to general consistencies among results from all analyses performed.

Overall Relationships

For both levels of analysis, parent variables relating to control were consistently and positively associated with both the frequency and qualitative aspects of imaginal activity. This applied to both direct and psychological styles of control. In contrast, parent variables regarding support tended to be unrelated. However, where significant correlations were obtained, they were typically negative.

Initially these findings appear to offer tentative support to Hilgard's (1970) conclusions regarding a positive association between the strictness of childhood discipline and imaginative involvement. On the other hand, they also appear to contradict the findings of a study

conducted by Singer (1966) suggesting that the tendency toward imaginal activity is facilitated by a benign and nurturant parental figure. A closer examination of the relationships obtained does, however, provide some indirect support for Singer's conclusions. Specifically, of the seven parental control variables identified in the analysis of the CR-PBI, only four demonstrated repeated associations with various aspects of imaginal activity.' Two of these were the father variables labeled authoritative control and control through love withdrawal, while the other two were the mother variables relating to control through guilt coupled with intrusiveness and restrictiveness. These may be distinguished from the other control variables (i.e., authoritarian control, detached control and control through withdrawal from a relationship) in that either a) the items constituting the variable specifically indicated love and/or support for the child, or b) the style of control presupposes the existence of an emotional attachment between parent and child. On the basis of this, it is possible to conclude that while nurturance or support is not a sufficient condition for facilitating the development of imaginal activity, it is a necessary condition. Phrased in a somewhat different manner, the present findings tentatively suggest that imagining is associated with parental control only when it is exercised within the context of emotional support.

Sex differences. At the outset, two hypotheses were presented regarding the sex of the parent and the interaction with the sex of the child. The first stated that the imaginal activity of the child would be related to the quality of interactions with both parents, and that neither the mother nor the father would show a clear preeminence. This

hypothesis appears to be supported by the findings of this study. When considered across sex of subjects, the correlations between imaginal variables and mother and father variables were of approximately equal, albeit low, magnitude. Thus, the results of the present investigation are in accord with the growing body of literature indicating the equivalence in the importance of both parents' roles in child development.

The second hypothesis stated that when both the sex of the parent and the child is considered, imaginal activity would be most closely related to the quality of interaction with the same-sex parent. This was based primarily on a series of studies conducted by Radin (1972, 1973, 1974, 1976; Radin and Epstein, 1975 a, b) indicating that cognitive competence in boys (girls) was consistently related to the quality of paternal (maternal) behavior. The present findings failed to support this hypothesis. Specifically, while correlations were generally equivalent across all parent-child pairings, there was a slight tendency, particularly for females, for higher relationships with the opposite-sex parent.

A reexamination of the literature indicated some limited exceptions to the general rule of higher sensitivity to the behaviors of the same-sex parent. For example, two studies suggest that fathers are more influential in the creativity of daughters and mothers, in the creativity of sons. The first, conducted by Long, Henderson and Ziller (1967) found that children exhibiting a higher ability to find novel problem solutions appeared to model less closely after the same-sex parent. The second (Anastasi & Schaefer, 1969) was based on the biographical inventories of high school students and indicated that mothers were more significant in

their sons' creativity and fathers were more influential in their daughters'. Along somewhat different lines, Hilgard (1970) found that imaginative involvements associated with hypnotizability were more highly correlated to the identification with and the parental warmth of the opposite-sex parent. Finally, the initial conclusions regarding the preeminence of the mother in the development of imaginal activity, was based primarily on studies employing only male subjects (Bene, 1975; Singer & Sugarman, 1955).

The discussion of the present findings cannot be concluded without considering the issue of the level of correlations obtained. The most readily apparent interpretation of these low level associations is that compared to other factors such as genetic heritage and societal influences, parent-child interactions play a relatively minor role in the development of imaginal activity. However, other possibilities present themselves in terms of alternative approaches to the study of parental influences. Each of these will be briefly considered in turn.

1. In the present study, subjects were required to rate each parent's behavior based on their perceptions of them at the age of 16. It is quite possible that parental influence had its greatest impact at an earlier age, and that the nature of the parent-child interactions changed as a function of the child's age. There is at least some support for this from studies indicating a normative decline in parental control as the child gets older (Armentrout & Burger, 1972; Jensen & Buhanan, 1974). Thus, future studies of the relationship between parent-child interactions and imaginal activity might prove more productive by taking developmental trends into consideration. This could be accomplished

through either the study of subjects falling into various age groupings or through a longitudinal study.

2. The quality of the parent-child interactions may only play a mediating role in the development of imaginal activity. Most learning theorists are in agreement that identification (modeling) is a crucial aspect of personality development. Further, several studies (e.g., Bandura & Huston, 1961; Bandura & Walters, 1959; Mussen & Distler, 1959) indicate that the parent variables assessed in this investigation (i.e., support and control) facilitate identification by enhancing parental saliency. These same variables may, however, be only incidentally related to the imaginal characteristics of the parent. Thus, the role of the parent in imaginal development might be best assessed by directly considering the identification process. As Bronfenbrenner (1958) notes, such an investigation requires assessment of both motive and pattern. The former has already been discussed with regard to parental saliency. However, the notion of pattern needs to be briefly considered. According to Bronfenbrenner, absolute similarity is not a necessary consequence of modeling since the child's attempts at emulation may result in the exaggeration rather than the replication of parent characteristics. Thus, the correct measure of modeling would be an analogy in pattern such that corresponding features, while differing in magnitude, occupy the same relative position in the total configuration.

3. In the present study, the influence of each parent's behavior on imaginal activity was assessed independently. In a review of the literature, Biller (1974 b) cites evidence suggesting that the social and emotional development of the child is a function of both the absolute

quality of each parent's behavior and the quality of one parent's behavior relative to the other's. Thus, future investigations might consider the imaginal activity of subjects whose parents exhibit either similar or differing patterns of interactions with the child (e.g., both parents high on the support dimension, both parents low, one parent high and the other low). Along somewhat different lines, it might also prove worthwhile to consider the nature of the parents' interactions with one another. A series of studies (reviewed by Biller, 1974 b) suggest that such aspects of interparental interaction as compatibility, domestic-value consensus, and role tension have a significant impact on child development.

Assessment of these possibilities is beyond the scope of the present investigation. However, each warrants consideration in future research relating to the development of imaginal activity.

Implications for Further Research

In the preceding section, several alternative approaches to the investigation of parental influences on the development of imaginal activity were proposed. However, before conducting any further research in this area, it is necessary to obtain adequate measures of both parent-child interactions and imaginal activity. Analyses of both the CR-PBI and the IPI failed to replicate the original scales comprising each inventory. The majority of items from both the father and mother forms of the CR-PBI and the IPI loaded on three well-defined components. The remaining items loaded on a somewhat larger number of poorly-defined

components. In only two instances did these components correspond to previously-defined scales.

Clearly, further work is necessary in the development of both these measures. The results from the present analyses can only be considered as a preliminary step in such a process. Further steps should take into account the following:

1. The major components for each inventory exhibited a high level of intercorrelation. This would suggest that these components were composed of both "pure" and "complex" items. Inspection of Tables 2, 3, and 10 indicates that "complex" items would be eliminated by retaining only the 10 to 15 highest loading items from each component.
2. A large proportion of the total variance from each analysis was left unaccounted for by the major components. Thus, there is a need to more clearly define the remaining components. This could be accomplished by the development of new inventory items reflecting the hypothesized content of each component; that is, items that should have major loadings on specified components and low loadings on others.
3. The results of the present analyses were based on data obtained from college "volunteers." At this point it is unclear as to how "volunteers" differ from "nonvolunteers" and as to how these differences might interact with the variables under investigation. However, demographic data presented earlier did suggest that the sample was biased in terms of race and religious affiliation. It is important to determine the impact of these and other variables on the component structure of the inventories under consideration.

APPENDICES

APPENDIX TABLE A
Scales and Sample Items of the Imaginal
Processes Inventory

Scales	Sample Items
Daydreaming Frequency (Df)	When I am not paying close attention to my job, a book, or TV, I tend to be daydreaming (0% of my time - 50% of my time) lost in thought. I lose myself in active daydreaming (infrequently--many different times during the day).
Night Dreaming Frequency (Ndf)	I have a night dream (rarely or never--once a night). I recall interesting or elaborate dreams (rarely or never--once a night).
Absorption in Daydreaming (Abs)	My daydreams seldom repeat themselves. A daydream can completely change my mood.
Acceptance of Daydreaming (Acc)	I feel guilty about my daydreams. I find my daydreams are worthwhile and interesting to me.
Positive Reaction in Daydreaming (Pr)	I can be aroused and excited by a daydream. My fantasies usually provide me with pleasant thoughts.
Frightened Reactions to Daydreams . . (Fr)	My daydreams often contain depressing events which upset me. I never panic as a result of a daydream.
Visual Imagery in Daydreams (Vi)	I sometimes have a very clear, lifelike picture of what I am imagining. The scenes of my daydreams are never longer than brief flashes.
Auditory Images in Daydreams (Ai)	When people speak in my daydreams, I cannot really hear their voices. The sounds I hear in my daydreams are clear and distinct.

- Problem Solving Daydreams My daydreams offer me useful clues to tricky situations I face.
(Ps)
Daydreams do not have any practical significance for me.
- Present-Oriented Daydreams My daydreams always relate to events current in my life.
(Prs)
I imagine myself in situations far removed from my day-to-day affairs.
- Future in Daydreams Before going somewhere, I imagine the scene and what I will be doing.
(Fut)
I do not think about what the future will be like.
- Past in Daydreams I often daydream about event that happened more than a year ago.
(Pst)
I never think at all about events or scenes of my early childhood.
- Bizarre Improbably Daydreams I often have thoughts about things that could rarely occur in real life.
(Bi)
My daydreams are rarely realistic.
- Mind Wandering I am the kind of person whose thoughts often wander.
(Mw)
I have difficulty in maintaining concentration for long periods of time.
- Achievement-Oriented Daydreams I daydream about accomplishing a difficult task.
(Ach)
I daydream about being promoted to a better position.
- Hallucinatory-Vividness of Daydreams Some of the voices in my thoughts are threatening or frightening.
(Hv)
My thoughts seem as real as events in my life.
- Fear of Failure in Daydreams In my daydreams, I fear meeting new responsibilities in life.
(Ff)
I imagine myself failing those I love.
- Hostile Daydreams I imagine myself physically hurting someone I hate.
(Hos)
I picture myself telling off my parents.

- Sexual Daydreams My sexual daydreams are very vivid and clear in my mind.
(Sx)
Whenever I am bored, I daydream about the opposite sex.
- Heroic Daydreams I daydream of becoming an important government official.
(Her)
I daydream about saving a drowning child.
- Guilt Daydreams In my daydreams, I am caught after stealing something very expensive.
(Glt)
I often feel tortured by the images of the sins I have committed.
- Curiosity: Interpersonal I often think about the lives of famous people.
(Ci)
I have little or no interest in the private affairs of others.
- Curiosity: Impersonal-Mechanical I have always liked to take things apart to see what makes them work.
(Cm)
I find the arts more stimulating than the sciences.
- Boredom Most of the things I do are not important or interesting.
(B)
I am seldom bored.
- Mentation Rate My mind is often blank.
(Mr)
My thoughts often seem to race through my mind.
- Distractibility My attention is seldom diverted by what others around me are doing.
(D)
I am always glad to find an excuse to take me away from my work.
- Need for External Stimulation I like to travel.
(NES)
I like peace and quiet.
- Self-Revelation I like to talk about my problems.
(Sr)
I have never wanted to keep a diary.

APPENDIX TABLE B
Scale and Sample Items of the Child's
Report of Parent Behavior Inventory

Scales	Sample Items
Acceptance of Individuation (Ai)	Likes me to choose my own way of doing things. Gives me a choice when possible.
Acceptance (A)	Sees my good points more than my faults. Likes me as I am.
Positive Involvement (Pi)	Often praises me. Is very interested in what I am learning.
Child-centeredness (Cc)	Likes to talk with me and be with me much of the time. Makes me feel like the most important person in his(her) life.
Possessiveness (Pos)	Seems to regret my growing up and spending more time away. Becomes very involved in my life.
Intrusiveness (Int)	Wants to know exactly where I am and what I am doing. Keeps a careful check on me and my friends.
Control through Guilt (Cg)	Feels I am not grateful when I don't obey. Tells me how much he(she) has suffered for me.
Hostile Control (Hc)	Decides what friends I can go around with. Always telling me how to behave.
Control through Instilling Persistent Anxiety (Anx)	Worries how I'll turn out. Says some day I'll be sorry.

Control through Withdrawal of

Relationship	Will not talk to me when I displease him(her).
(W)	
	Less friendly if I don't see things his(her) way.
Rejection	Isn't very patient with me.
(Rej)	Thinks my ideas are silly.
Hostile Detachment	Doesn't talk with me much.
(Hd)	Doesn't think of me much.
Inconsistent Discipline	Sometimes allows me to do things he (she) says are wrong.
(Id)	Only keeps a rule when it suits him(her).
Nonenforcement	Doesn't pay much attention to my misbehavior.
(Ne)	Seldom insists I do anything.
Extreme Autonomy	Doesn't tell me when to be home.
(Ea)	Lets me do anything I want.
Lax Discipline	Can't say no.
(Ld)	Excuses bad conduct.
Control	Believes in having a lot of rules and sticking to them.
(C)	Insists I do exactly as I am told.
Enforcement	Is very strict with me.
(E)	Punishes me when I don't obey.

APPENDIX TABLE C

Eigenvalues for the First Twenty-Five Components
from the Principal Components Analyses of the
CR-PBI and the IPI

Component	CR-PBI F.R.F.	CR-PBI M.R.F.	IPI Items 1-172	IPI Items 173-344	IPI Combined
1	63.108	54.815	45.687	21.206	17.940
2	25.474	12.395	10.694	13.926	13.092
3	5.858	9.001	6.972	6.189	7.220
4	4.662	7.284	4.965	4.907	6.551
5	3.970	4.561	4.213	4.442	4.921
6	3.290	4.427	4.105	4.079	4.744
7	2.983	3.786	3.906	3.774	4.482
8	2.591	3.326	3.500	3.571	3.887
9	2.349	2.629	3.224	3.388	3.709
10	2.313	2.426	2.595	3.034	3.455
11	2.243	2.271	2.398	2.854	3.347
12	2.005	2.151	2.251	2.623	3.178
13	1.939	2.028	2.175	2.559	3.073
14	1.778	2.002	2.068	2.488	2.933
15	1.748	1.869	1.987	2.408	2.831
16	1.682	1.820	1.920	2.339	2.706
17	1.630	1.707	1.809	2.249	2.553
18	1.601	1.621	1.790	2.158	2.529
19	1.514	1.567	1.767	2.065	2.440
20	1.459	1.497	1.705	2.018	2.315
21	1.447	1.474	1.621	1.987	2.226
22	1.407	1.448	1.582	1.937	2.118
23	1.357	1.431	1.505	1.792	2.108
24	1.327	1.419	1.460	1.734	2.079
25	1.243	1.399	1.426	1.684	1.970

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