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THE INTERPLAY OF AFFECT AND COGNITION IN THE DEVELOPMENT OF IDENTITY AS REVEALED IN CHILDREN'S FIGURE DRAWINGS

by

Cathy Wein

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Abstract

THE INTERPLAY OF AFFECT AND COGNITION IN THE DEVELOPMENT OF IDENTITY AS REVEALED IN CHILDREN'S FIGURE DRAWINGS

by

Cathy Wein

Adviser: Gilbert Voyat, Ph. D.

This study investigated the interplay of affect and cognition in the development of the sense of identity in children. Both generic identity--the invariance of a living being, and individual identity--the unique self, as well as the child's understanding of identity as an intellectual concept, were examined from both psychoanalytic and Piagetian perspectives.

In tracing the infant's progress from a global to a more differentiated psychic state, several factors were emphasized: the child's object-relations, especially the attachment to the primary caretaker; the construction of the permanent object and a separate and distinct self; the capacity for symbolic representation; and the establishment of gender constancy. The role of maturation and experience, and of imitation and identification, were also discussed.

These issues were explored in relation to hypotheses pertaining to the qualitative and quantitative changes which are assumed to occur in the child's sense of identity in the course of development. Significant relationships between affect and cognition, and age and conceptual

ability, were postulated.

Thirty children between 3.7 and 8.11 years participated in the study. The experiment consisted of 1) a conservation of matter task; 2) human figure drawings; 3) reordering and labeling the drawings; 4) verbal exploration of identity-awareness; and 5) spontaneous comments. Measures related to identity-issues were derived from both established norms and from relevant behaviors observed during the experiment. The measures assessed cognitive level and affective criteria underlying the identity-concept and the child's conscious experience of self.

A scale of cognitive maturity was developed which was highly related to several variables: the ability to transform mental images while maintaining a sense of inherent integrity and continuity; the complexity of the graphic image and, by implication, the corresponding nature and structure of the internal image; the recognition and representation of differentiated affective states; and the level of identity-awareness and capacity for self-reflection. The group trends indicate that cognitive maturity is a good, but not perfect, predictor of degree of identity-awareness. Intense affect and/or the instability of the child's emotional ties and identifications appear to account for any disparities noted.

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Chapter I

Introduction

This thesis is a study in the development of identity. The concept of identity has been variously defined and is closely related to the concept of the self. Both terms have been used to refer to the psychological construction of a stable, enduring inner entity derived from the child's interactions with the environment. They imply the individual's awareness of a separate, independent existence differentiated from the surrounding world, as well as the creation of an organized pattern of feelings, attitudes and behaviors particular to the individual--the self- or identity-feelings. While the self-concept often refers to the whole person including the body, psychic organization and experience (Hartmann, 1952; Jacobson, 1964), the notion of identity suggests the dimensions of constancy, continuity, and direction (Erikson, 1956; Lichtenstein, 1961). The consciousness of selfsameness in the midst of change, of the capacity to remain "identical" to one's self over time, is essential to the ongoing experience of selfhood. The evolution of the sense of self and the formation of identity are necessarily intertwined. Both depend on the child's active involvement with the world of people and objects on the continuous interplay of affect and cognition in the shaping of personality.

Two distinct but interrelated aspects of identity will be explored: objective identity formation and the corresponding experience of identity. The first entails the process of identity development and includes the recognition of the "fact" of one's existence and the extension and

consistency of that existence through time. Piaget and Voyat (1968) refer to this as generic identity: the general notion "that I am" and "that I will continue to be me" despite possible transformations. It ensures the basic integrity of the individual despite changes. The concept itself must undergo transformations in the course of the child's cognitive development before becoming integrated into the system of conservations and attaining a stable, comprehensive meaning for the child. The second aspect of the identity-concept is that of personal or individual identity: the subjective experience of "who I am." It consists of all the qualities of being which the individual feels are distinctly characteristic of the self. The sense of identity reflects the unique configuration of personal experiences and the underlying structural organization of the individual. It too is subject to continual modification, elaboration and redefinition throughout life, although a central core of identity remains stable in normal psychic development.

Both the concept and the conscious experience of identity are, therefore, assumed to vary in the course of growth. The main purpose of this research will be to trace the process of normal identity-development in children and to attempt to delineate the phases or stages in this process, focusing in particular on the level of cognitive and libidinal organization at each stage. What constitutes identity at different stages—what are the essential criteria by which children recognize and define themselves--and, how the child comes to organize experience to form such a construct, will be examined. How does the child acquire an understanding of identity and what is the nature of that understanding? If the significant qualitative changes that take place as identity becomes

articulated and consolidated can be discerned, it should become clearer as to which psychological features remain relatively constant, are conserved, and which are variable over time. The primary focus will be on the underlying structure of identity, on the salient characteristics typical of children of a particular age-range which are presumed to reflect an internal image, rather than on the analysis of individual identities in a diagnostic sense. However, individual differences will not be overlooked; they will be used to highlight the richness and diversity within the group trends.

Two approaches, psychoanalytic and developmental-cognitive, provide the theoretical framework for this study. Within and between these perspectives, there are variations in the use of terms such as the self, identity, ego, self-representation mental image, and other psychic phenomena. There is also some difference in the focus of interest--for example, on affect or cognition--as well as on different aspects of experience--intrapsychic, interpersonal, or external events. In addition, they differ in regard to some of the mechanisms underlying the evolution of identity. However, there are some important similarities. Both theories stress the developmental aspects of the acquisition of identity and the formative significance of the earliest experiences. Each emphasizes the individual's active role in this process and the tendency toward increased adaptation to, and comprehension of, reality. They view the individual as progressing, in a dialectical fashion, through a series of hierarchical developmental phases which express and foster psychic growth. Both describe how the individual moves from biological origins to psychological meanings which encompass those origins. Although some psychic

structures may be present from birth, both theories argue that these structures acquire meaning only through interaction with the environment. New experiences modify existing structures and result in the emergence of more sophisticated, differentiated, and integrated structures and levels of functioning. Identity-formation, and the correlative experiences of self-discovery and self-realization, depend on these dynamics.

Psychoanalytic and cognitive developmental theory, therefore, can be viewed as complementary, rather than incompatible. Each offers insights into issues not as exhaustively or systematically examined by the other. Significant differences, however, will be noted and discussed where relevant. By drawing on selected aspects of both theories, it is hoped that some progress will be made toward a fuller, more integrated understanding of the problem. Before proceeding with a detailed exploration of identity-formation, some of the basic principles of both theories will be described.

Psychoanalytic theory asserts that behavior is motivated primarily by unconscious, innate, instinctual drives--sex and aggression--the id being the psychic representation of the drives. These libidinal impulses seek expression and gratification in the environment. Personality development is largely conceived of as a function of the interaction of the drives, maturation, and experience, as the individual progresses through a sequence of psychosexual stages derived from the successive dominance of different areas of the body associated with libidinal pleasure: oral, anal, phallic, latency, and genital stages. The conflicts experienced within the individual in the process of getting needs satisfied in socially acceptable ways, and the manner in which these conflicts are resolved, determine the unfolding of personality. From birth, the infant is propelled by

impulses which initially can only be adequately met through the ministrations of others. Other people are therefore extremely important as sources of physical and libidinal satisfaction and emotional stimulation, contact and engagement. The continual interaction of intense affective states and drives with objective reality gradually gives rise to internal psychic structures, or groupings, of functionally related mental contents and processes (Brenner, 1955). These structures enable the infant to gain inner control or regulation over impulses, to direct and channel them appropriately.

During the first year, the ego is the mental structure which emerges as the primary organizing principle of the self. Comprised of a variety of functions--thinking, motor control, perception, memory, judgment, affect, defense--the ego is responsible for organizing and synthesizing experiences, for rendering inner and outer reality comprehensible and manageable. The ego mediates between internal and external demands, asserts the reality principle and secondary process over the pleasure principle and primary process, and strives toward the individual's rational functioning in the world. (In dreams, play, and fantasy, primary process thinking and primitive wishes continue to find more direct expression.) These accomplishments, of course, take place gradually, as the individual gains an increased sense of competence and autonomy through experience.

At about the fifth year, the superego becomes a differentiated psychic structure. It derives from the resolution of the oedipal complex: the child renounces incestuous and hostile wishes toward parental figures and identifies with, or internalizes their moral demands and prohibitions instead. The superego, frequently equated with the conscience,

is that aspect of personality pertaining to moral values.

According to psychoanalytic theory, normal development is characterized by a degree of intrapsychic conflict necessary for growth. The psychic structures (functioning always on an unconscious level) achieve a kind of harmony which is reflected in the person's experience of inner well-being. When the conflicts are severe, due to a variety of possible factors--deprivations, frustrations, disturbed interpersonal experiences, drive and affect intensity--anxiety and guilt are likely to occur. Psychoanalytic theory argues that psychopathology, symptom formation and the variety of emotional and mental distresses, are the expression of unresolved, repressed, unconscious conflicts. Disorders of the emotional life affect intellectual functioning, and vice versa. When the underlying structures have attained a stability of functioning, this will be reflected in the coherence, flexibility and integration of the personality.

Piaget's cognitive-developmental psychology addresses itself primarily to the development, nature, and structure of intelligence. Although affect is assumed to be the motive force of all behavior, it is not central to Piaget's theory as it is in psychoanalysis. Rather, Piaget focuses on intellectual functioning. He traces the evolution of the child's construction and understanding of the objective world. The role of unconscious forces and conflicts in this process is considered minimal. Instead, the crucial factor is the child's direct actions in the environment. The interaction of maturation and experience, mediated by the process of imitation, is the source of the earliest cognitions and the ultimate basis of internalized thought.

Progress in intelligence, which enables the child to move from biological to psychological levels of functioning, depends on the general

innate tendency for organization and adaptation. These tendencies are reflected in the child's attempts to interact effectively with objects and people, coordinate and direct behavior, control body movements, master new situations, and render experience into meaningful wholes. Such activities give rise to internal schema, integrated patterns of behavior or ways of organizing experience which underlie overt actions. These schema gradually evolve into more sophisticated psychological structures which encompass increasingly complex aspects of reality and include the mental operations necessary for abstract thought.

These accomplishments take place through the interrelated processes of assimilation and accommodation which enable the child to maintain a psychological balance or equilibrium between the self and the environment. Assimilation entails the comprehension of an object or event on the basis of existing cognitive structures. An aspect of objective reality "fits" into the child's level of understanding. By contrast, accommodation refers to the modification of internal structures. New information which does not conform to or cannot be "taken in" by existing structures leads to changes in those structures. The child's thinking becomes altered in order to grasp a new dimension of reality. While assimilation and accommodation are "invariant" functions, the cognitive structures undergo qualitative transformations in response to the demands of reality.

According to Piaget, then, the child's thinking passes through distinct levels or stages of development. Each stage is characterized by a particular kind of psychological structure or organization which incorporates aspects of the previous stage and points to the next stage: The series of stages involve "an integration, a reorganization, and an

anticipation" (Voyat, 1982). The stages are, therefore, functionally continuous, but structurally discontinuous or discrete. In addition, like the psychosexual stages of psychoanalytic theory, the cognitive stages necessarily follow a fixed sequence, since each stage determines the succeeding stage. Each step marks progress toward fully interiorized thought and embodies a new synthesis of logical structures: the sensorimotor stage of direct perception and action, the pre-operational phase of beginning symbolizations and signs, the level of concrete operations involving the notions of reversibility, transformations and conservation, and the stage of formal operations of abstract thinking. Piagetian theory then, again like psychoanalytic thought, points to the increased differentiation and integration of psychological structures through a dynamic process which results in more effective levels of functioning and a more complex apprehension of reality.

Within the psychoanalytic framework, two trends in particular will be focused on. The first, classical psychoanalytic theory, represented by Freud and Hartmann, stresses the primacy of the role of instinctual drives shaped by maturational processes in the development of the self. From this perspective, while external factors are important to this process, they contribute to but do not determine it. Rather, the vicissitudes of libidinal impulses and intrapsychic phenomena are emphasized. Internal needs move the child in particular developmental directions, fostering the formation of images and mental representations which reflect the child's experience of inner and outer reality. These theoretical formulations are derived largely from the psychoanalysis of adults. From the verbal reconstructions of events, experiences, fantasies, dreams,

memories and expression of feelings, the underlying motives of behavior and structure and development of the psyche can be inferred.

The second major trend in psychoanalytic theory evolved from the work of ego-psychologists such as Mahler, Jacobson, and Erikson, and from the school of object relations represented by theorists such as Winnicott. Shifting the emphasis from the instincts to the relationship between the infant and the signficant caretaker, these theorists stress the mutuality and centrality of the interaction between intrapsychic processes and the external environment, usually represented by the mother. This early relationship, with its biological, psychosocial-affective and cognitive components provides the original context for the emergence of the self. The interdependence of the child's inner world and the external world of love objects becomes manifest, each affecting and reflecting the increased differentiation and elaboration of the other. These interpretations are based on both analysis with adults, as well as on work with adolescents and children. Direct observations of infants and children significantly enlarged--confirming, correcting and adding to--the psychoanalytic understanding of normal development.

Similarly, cognitive developmental theory is derived from direct research with children. The observations and experiments of Piaget and his colleagues provide repeated evidence of the active process of construction that children engage in to come to an understanding of reality--that is, rationally apprehended reality. Through the exercise of the infant's growing skills and active exploration and manipulation of the environment, the knowledge is acquired for the formation of the permanent object and person and the creation of an elementary sense of identity.

The Object Concept and the Early Development of the Self

For the child to experience the self as a singular, differentiated consciousness occupying a particular body-space--to feel oneself to be the subject who acts and is also the object of the actions of others--marks a highpoint in psychological development. It is significant in terms of conceptual and representational abilities, providing the basis for entering the realm of complex cognitions and meanings which will further enhance the child's adaptive behaviors. It is a psychic achievement whereby the child begins to experience the self as a coherent identity, with feelings of inner consistency and increased autonomy, which can be realized through continued interaction with the world and communicated to others. It represents a milestone in emotional and social growth, allowing for more realistic and empathic relationships which take into account difference and sameness. This accomplishment is most overtly manifest in the child's ability to signify an awareness of the self as a whole entity through the symbolic use of the referent "I." When a stable world of objects and a stable self are differentiated, the child is better able to organize and interpret experience, to perceive the world more objectively, and to endow it with personal meanings and values as well.

To have reached this point, the infant must have attained the concept of the object with both its libidinal and cognitive components. Developmental and psychoanalytic theorists vary in their definition and usage of the term object concept, the former referring to object permanence and the latter to object constancy. Piaget, and theorists such as Werner, emphasize the cognitive aspects of the concept, the relationship between the infant's actions and the object which results in the

"objectivation" of the object and the evolution of mental representations and symbolic thinking. Psychoanalytic theorists usually use the notion of object constancy to refer to both the object qua object and the formation of a mental image of the object (in Piaget's sense), as well as the infant's affective tie to the object. The consistent cathexis of the love object and the role of primitive hallucinatory experience and early mental representations are central to the psychoanalytic concept.

As Fraiberg (1969) has pointed out, some of the differences in viewpoint are partly attributable to terminology, to differences in emphasis on the affective or cognitive aspects of the concept, or to the developmental stage under consideration. Variations in determining the timing at which the concept is assumed to be acquired and in the role of recognitive versus evocative memory are also evident. Nevertheless, the concepts are sufficiently related and overlapping to permit a general synthesis.

In its broadest sense, the object concept refers to three basic phenomena: 1) the ability to distinguish self from non-self and to recognize that people and things exist separately and independently from one's own needs, perceptions and actions--the object has permanent attributes inherent in the thing itself--it has "objectivity"; 2) the stability of the emotional attachment or tie to the object, regardless of its presence or absence or its need-gratifying properties; and 3) the formation and cathexis of a stable mental representation of the object, comprising both cognitive and affective aspects. This representation constitutes a symbolic inner image which gradually becomes autonomous from the object itself. Both theoretical approaches share the assumption that initially

the infant does not distinguish between self and object nor between internal and external experience. Each then describes how the infant proceeds from this global state to a progressively more differentiated and articulated relation to reality.

Piaget

Piaget (1954, 1969) characterizes this initial experience of the infant as a kind of "shifting and unsubstantial 'tableaux'" with objects moving in and out of the infant's perceptual field, like the view from a window of a moving train. The infant perceives a series of isolated images which appear and disappear, are not yet distinguishable or identifiable as objects per se, nor are their relationships to one another understood. The ability to construct a world of distinct objects located in time and space depends on the active manipulation of objects through the exercise of sensorimotor skills. The stages in the development of object permanence correspond to Piaget's six sensorimotor stages with their discrete behavioral and structural components. These involve, for example, early reflexes, the chance discovery and "rediscovery" of "interesting events," habits such as thumb-sucking, and early imitative behaviors. At first, objects appear to the infant to be an extension of direct perception and behavior: If the object is not perceptually present, it does not exist for the infant. Beginning at about 9 months, however, the infant attempts to search for an object that is moved or hidden from view. By 15-18 months, the infant is better able to follow the displacements of the object. Finally, even when the object's movements or displacements have not been observed, search behavior still occurs,

indicating the infant's awareness of the object's independent existence. The repeated interaction of the developing sensorimotor schemes and the actual properties of the external objects and of the infant's own body gradually lead, through assimilation and accommodation, to the infant's distinguishing between the body and its activities and the world of independent objects.

Toward the end of the second year, then the infant can begin to act on or manipulate objects mentally. For Piaget, the construction of the permanent object at about 18 months suggests the formation of mental images and the beginning of true symbolic thinking. In contrast to psychoanalytic theory, Piaget believes that the capacity for evocative mental representation is the consequence of the process of self-object differentiation, not an integral mechanism of the process. He asserts that the significant intervening behavior is imitation. Imitation is seen as the link between the early modes of representation of the sensorimotor period--representation in action, and the latter, interiorized actions or imitations--representation in thought, as well as in language and symbol usage.

Imitation itself undergoes developmental stages similar to the six stages of sensorimotor development and object concept formation. These different aspects of the infant's behavior progress along parallel and mutually interrelated lines. Just as the infant's behavior is at first tied to the object and later recognized as separate, so initially the infant is only capable of copying behaviors already performed, those which are part of the infant's own self-experience or "repertory of actions (Ginsberg & Opper, 1969). Not until later can the novel behaviors of others be reproduced. Eventually, internal imitations, or "deferred imitation"--the

ability to represent in thought or image an object or action not perpetually present--occurs (Piaget, 1962). Events and movements are transformed into cognitive acts, and mental images, visual or other, are evoked to represent the absent models. The emerging capacity to symbolize experience frees the infant from direct dependence on objects and thus "transcend the constraints of space and time" (Ginsberg & Opper, 1969). It indicates clearly that an understanding of the permanent object as distinct from the (permanent) self has evolved. This knowledge develops by degrees. Only when objects are conserved, retain their autonomous existence despite displacements in space or time, Piaget argues, does evocative imagery occur. (It should be noted that Piaget distinguished between this type of conservation--of the permanent object, and the "true" conservations of the concrete operational period--the understanding that the object remains "identical" to itself despite transformations.) The capacity for symbolic representation will enable the growing child to comprehend the transformation in the self while retaining an underlying sense of identity.

While to some extent these processes take place on an unconscious level, Piaget emphasizes the conscious, directed nature of the infant's participation in these developments. The infant appears eager and curious to learn about the world and his/her place in it, seeking out varied, stimulating experiences and experimenting with new ways of acting upon and reacting to the environment and to inner needs and interests. Based on the information acquired, behaviors become expanded and refined along with an increased sense of competence and understanding. This process, of course, typifies all learning throughout life; what is significant is

Piaget's recognition that this active striving tendency occurs in earliest infancy.

As has been noted, the internal, less conscious aspects of these changes in development involve the formation of new psychological structures. Piaget sees in the infant's progress in imitation increased accommodation to external reality: Mental configurations are reorganized to encompass and integrate new knowledge about life. He stresses the dynamic, structuring aspects of this "equilibrium" process: The conflicts between existing cognitive structures and reality-as-it-is forces the development of more meaningful, accurate logical systems and strategies of adaptation. Thus, with the establishment of the permanent object, several important developments coalesce: the demarcation of self from other objects and beings, concomitant distinctions between subjective and objective experience, inner and outer reality, and the beginnings of the symbolic function.

Significantly, Piaget, unlike psychoanalytic theorists, focuses on the object world in general and not on the infant's relationship with the primary caretaker. While the infant develops affective ties to important persons, these attachments are not the essential element in Piaget's formulation of object permanence. They do not particularly influence the formation of cognitive structures and concepts. Instead, the significant other in this context is simply another object to be comprehended in the same way as all other objects. The underlying processes are the same for all objects, human or otherwise. The infant is also one "among these now permanent objects . . . subject to the same laws of coordination and relation" as any other object, animate or inanimate (Piaget, 1954).

Nevertheless, the significant other may be attended to more, according to Piaget, because s/he is more cognitively interesting as an object. But, the ability to form a stable mental image of a loved person is subject to the same principles, and occurs simultaneously with, the capacity for mental representations in general. This view differs from that of psychoanalytic theory which asserts that the role of the primary caretaker and the tie to this person is central to the notion of object constancy. For Piaget, the primary object is important as a part of the infant's affective and social life--object relations--but not basic to the constitution of early psychic structures, except insofar as they are additional sources of stimulation and imitation.

Freud, Hartmann, Spitz

Along with the emphasis on the infant's first object relation within which the primitive self unfolds, psychoanalytic theorists also stress the influence of the infant's internal states and intrapsychic factors in the development of object constancy. From an initial phase of primary narcissism and unity with the significant caretaker, based at first on the satisfaction of needs, the infant gradually becomes an individual with the inner structures and boundaries which comprehend both subjective and objective reality.

Hartmann (1952) was the first to use the term object constancy within the psychoanalytic framework. He draws on Freud's description of the infant's shift from primary narcissism to object cathexis and links it to Piaget's theory of the construction of the permanent object in order to explain the infant's capacity to form object relations and corresponding

ability for increased reality-testing and "objectivation." Like Freud, Hartmann attempts to understand this process in terms of changes in direction and intensity of instinctual energy.

Freud's paper "On Narcissism" (1914) describes the infant as initially dominated by bodily needs and the pleasure-principle--the satisfaction of needs and avoidance of anxiety, tension, or unpleasure. He postulates the concept of primary narcissism, wherein the infant's libido is centered on the body and on immediate need gratification. At this stage, objects exist for the infant only insofar as they satisfy instinctual needs; objects are not yet distinguished from the infant's body and its drives. According to Freud, in normal development, due to the frustrations and conflicts the infant encounters in getting needs met in interaction with the environment, including the primary caretakers, the infant is gradually forced to recognize the separate existence of other objects and begins to direct libido outward toward them. At first, this cathexis of others is still dependent on their need-gratifying properties. Freud refers to this as the anaclitic object choice because the libido--sexual instincts--"lean on" the self-preservative ego-instincts. Slowly, the infant's capacity to delay gratification increases, through the hallucination of the need-satisfying object and eventually, through the creation of more sophisticated mental representations and the growing functions of the ego. The attachment to the love-object becomes independent of need-satisfaction and acquires an autonomy and importance of its own. This marks the beginning of true object relations and the transition from the drive object to the "psychological" object, as Hartmann terms it. It represents the first clear demarcation of self and object and the establishment of object constancy.

Hartmann (1952) suggests that the shift from narcissistic to object libido is dependent on, and facilitated by, the increasing capacity of the ego to neutralize both aggressive and libidinal energy. This capacity, in turn, is based on what Hartmann postulates as the infant's primary or inborn ego apparatus or functions--such as perception, motility, thinking. These innate functions enable the infant to organize primitive experience and regulate the interactions between the drives and the environment. Central to Hartmann's thesis is the context within which these developments take place: the "average expectable environment," the physical, emotional, and social world of the infant, usually, according to Hartmann, represented and provided by the mother. Ultimately, for Hartmann, the attainment of object permanence in the Piagetian sense can only occur in the process of forming object ties--of achieving libidinal object constancy. The infant comes to know the object as an independent entity and delineates the outlines of the self. From this perspective the cognitive and libidinal aspects of the object concept are fundamentally interdependent.

Following Hartmann, other psychoanalytic writers have sought to define their understanding of object constancy, emphasizing different aspects of it (Fraiberg, 1969). Anna Freud (1952), for example, suggests that the infant's ability to transfer libido from the need-satisfying object to the psychological object is due to a reduction in the intensity of the drives themselves. The narcissistic attachment to the mother becomes transformed to object-love only when the infant has gained some control over the drives and is not dominated by demands for immediate gratification. The process is marked, then, by a decrease in instinctual

pressures, by gains in the formation of the ego, and by the strengthening of the reality over the pleasure-principle. When this has occurred, at around two years, libidinal attachment to the love object can be maintained regardless of the object's presence or absence, or of the infant's own need states. Anna Freud also makes a point of stressing the stability of the object tie, and not the "objectivation" of the object, in her discussion of object constancy. While she is interested in the infant's advances in cognition, she is more concerned with how the infant becomes a social being and forms ongoing relationships with others.

Similarly, Spitz (1965), in his research with infants during the first year of life, traces the steps by which the infant moves from "a purely biological bond . . . into what is to become the first social relation." The establishment of object constancy is central to this development. Spitz describes the interactions of innate and experiential factors which foster the infant's increased physical and psychological capacity for distance and differentiation. Based on Freud's (1921) original conception of the mother-infant relationship as the first "object relation" and the forerunner of all other social relationships, Spitz refers to the mother-infant dyad as the "prototypical social system," a closed system from which the infant's psychic self emerges. The structures and "organizers" of the self become increasingly articulated and integrated at more advanced levels as object constancy develops. Spitz believes that the object concept is formed as early as eight months. He views the phenomenon of "stranger anxiety," which occurs at about this time, as an expression of the consolidation of the object concept in both its affective and cognitive aspects. For Spitz, stranger anxiety reflects the infant's

attachment to the other, the "objectivation" of the object, and the formation of a stable mental representation which has been cathected and retained in memory.

Spitz's position contrasts sharply with Piaget's interpretation of the behaviors observed in the infant's reaction to strangers. Piaget believes the infant's anxiety is an indication of the lack of the existence of a stable inner image of the primary object. He assumes that at this point in development (around 6 to 10 months) the infant is not yet capable of true evocative memory and therefore manifests uneasiness when separated from the mother or confronted by an unfamiliar person. In these situations, the infant is unable to call upon a stable, comforting inner image of the caretaker. Piaget understands the infant's differential responses to people at this stage as a function of recognition memory (or the absence of recognition). While he notes that the infant's attachment to the primary caretaker may be apparent in their interactions, the capacity for sustained mental representation is not yet evident. (The issue of mental representation will be discussed further in the literature review; however, it should be mentioned here that since Spitz's original formulations concerning stranger anxiety, recent research has emphasized other elements of this reaction, such as curiosity and excitement, and not only, or always, anxiety. Nevertheless, this would not contradict Piaget's interpretation but would be consistent with his assumptions about the infant's active interest in new experiences and people.)

Mahler

Another dominant viewpoint in contemporary psychoanalytic theory is represented by the work of Mahler. She draws on the theoretical insights

of Freud, Hartmann, and Spitz and integrates them with her observations derived from extensive research with both normal and psychotic children. She provides a detailed account of the infant's progress toward selfhood. She describes some of the important features of this process, such as identification, and highlights essential moments in the infant's development which indicate significant advances in the formation of the psychic structures, functions, and boundaries which reflect the infant's ever-expanding understanding of subjective and objective reality. Mahler et al. (1975) refer to the "psychological birth" of the infant, the dawning awareness "that I am," as the separation-individuation process. She defines this as

> the establishment of a sense of separateness from, and relation to, a world of reality, particularly with regard to the experiences of one's own body and to the principal representative of the world as the infant experiences it, the primary love object. (p. 3)

Further:

> Separation and individuation are conceived of as two complementary developments: separation consists of the child's emergence from a symbiotic fusion with the mother, and individuation consists of those achievements marking the child's assumption of his own individual characteristics. (p. 4)

Subsumed within this process, then, are the basis of the development of the self and one's unique identity, and the development of object constancy and object relations. While this intrapsychic process "reverberates throughout the life cycle," the fundamental psychological achievements occur between about four months and 36 months of age in normal development.

Mahler agrees with Piaget that object permanence--the symbolic inner representation of the object qua object--is attained by about 18 months. However, she argues that libidinal object constancy usually occurs later,

at around 36 months. She attributes this difference in timing to the highly emotional and variable nature of the infant's relation to the love object, in contrast to inanimate objects with relatively fixed properties. (Mahler also notes, however, recent studies which indicate an interesting reversal: that "person" permanence may occur before "object" permanence (Bell, 1970; Pine, 1974). Mahler suggests that these findings may be similarly explained: that the intense, charged, continual relationship between caretaker and infant, in some instances, may heighten learning and hasten the development of libidinal object constancy.) Usually, in early infancy, the child invests inanimate objects, such as a bottle, with enormous significance, and is less aware of the person who provides it. Nevertheless, it is the infant's progress from the drive object--bottle--to the psychological object--person -- that marks the interpersonal psychological achievement. When the infant forms an attachment to the caretaker despite the variations in his/her gratifying or nonsatisfying aspects, libidinal object constancy has begun. According to Mahler, it generally is not consolidated until the third year of life.

Prior to separation-individuation phase proper, Mahler delineates two earlier stages of the infant's experience characterized by the lack of differentiation between subject and object which parallels the period of primary narcissism postulated by Freud. She refers to the first, or objectless phase, from 0-1 month, as the normal autistic phase during which the infant is in a state of "primitive hallucinatory disorientation," dominated by biological needs which appear to be satisfied within the infant's own "omnipotent autistic orbit" (1968). Although there is as yet no distinction between inner and outer experience, the infant is

beginning to distinguish between pleasurable and painful experiences. It is only during the second, pre-objectal phase from 1-5 months, that of normal symbiosis, that the infant becomes somewhat aware of the need-satisfying object. Nevertheless, this need-satisfying object is not yet apprehended as a separate being, but rather is perceived by the infant as sharing a common boundary. The symbiotic state or "dual unity" of the mother-infant dyad is not experienced by the infant to consist of two psychologically and physically distinct individuals. Instead, Mahler believes, the infant experiences a fusion or merging of the self and object representations, such that all good or pleasurable aspects are part of this omnipotent unity, while all bad aspects tend to be warded off outside it.

Mahler emphasizes the "sociobiological interdependence" between infant and caretaker during this phase of development when the infant is completely dependent on another for tension-reduction and need-satisfaction. In contrast to Piaget, she underlines the crucial role of the relationship between the infant and parent. Like Spitz and Winnicott, she emphasizes the importance of a good fit between mother and child: adequate empathy and "holding behavior" on the part of the mother in meeting the infant's symbiotic needs, and the infant's innate capacity for actively engaging in this relationship. It is the "psychobiological rapport" between mother and child that is essential to the gradual development of the infant's rudimentary ego, and ultimately, to the formation of emotional attachments to others.

Through the repeated experience of appropriate gratification and contact, in conjunction with non-traumatic frustrations, the infant begins

to develop the capacity to discriminate between inner and outer stimuli, to establish a primitive body image, and to mediate between inner and outer realities. Mahler assumes that the intensity of the infant's needs diminishes and the capacity to delay increases based on the experiences of gratification. During the symbiotic phase, then, the groundwork is laid for the emergence of the self; representations of the body resulting from pleasurable and painful experiences are integrated into a body image which constitutes the basis of the body-ego or body-self as distinct from the object world. For Mahler, it is the inner sensations of the infant which form "the core of the self," around which the "sense of identity" will crystallize (1975).

The shift from primary narcissism to the mother-infant unit occurs during symbiosis. In the course of the separation-individuation phase, the infant gradually transfers libido onto external objects and onto his/her own expanding autonomous functions. Mahler traces these changes in libidinal investment in connection with the concomitant differentiation between self and object world that the infant undergoes during this period. Through the active exercise of sensorimotor skills and through the increased exploration of the environment--including significant others--the infant continues to gain knowledge about the body and its functions, further demarcating self and object boundaries and the relationships between them.

Mahler describes four subphases within the separation-individuation process. Each subphase is distinguished by particular behaviors which represent progress toward the infant's acquisition of a sense of self and true object relations. They begin with (1) 5-9 months--the emergence of

the infant from the symbiotic state or unity with the mother--the "hatching" process which constitutes the "psychological birth" of the infant; progress through (2) 9-14 months--the practicing, and (3) 14-24 months--rapprochement phases of increased separation and differentiation, to (4) 24 months on--the consolidation of individuality and libidinal object constancy. Although the last phase is achieved by about 2 1/2 to 3 years, the process of individuation is assumed to continue throughout life.

The Psychoanalytic Concept of Identification

Central to this development is the process of identification. Mahler sees identification as one of the basic mechanisms underlying the formation of the self. The psychoanalytic concept of identification relates to Piaget's concept of imitation in that both attempt to explain the internalization of aspects of behavior and the differentiation of self from other. However, while Piaget assumes that imitation itself undergoes transformations which finally eventuate in the infant's ability to form and retain mental images, psychoanalytic theory postulates that unconscious identifications take place at the most primitive levels of development and themselves constitute very early mental representations which foster self-object differentiation and modify the structure of the evolving self. This accounts, in part, for the difference between the two theoretical approaches in their understanding and timing of the development of the object concept and of the capacity for mental representation, especially evocative memory.

Psychoanalysis also considers imitation to be an important element in learning and socialization. Imitation is necessary to the development

of object constancy and can be a precursor to identifications. In addition, imitation may itself be a form of identification--imitative identification. However, it is the concept of identification, rather than imitation, which plays the more profound and complex role in psychoanalytic theory. Identification is involved in both the structuring of personality and in the individual's ability to engage in meaningful, empathic interpersonal relations. The concept itself has been variously defined, and its meaning and use continue to be refined and reinterpreted. Usually, however, it refers to both a psychodynamic process and the resulting intrapsychic products: the means by which the infant takes on valued aspects of others and simultaneously establishes a tie to those others. The infant's unconscious wish to experience "being like, the same as, and merged with" a significant object or aspects of that object, leads to the internalization of the desired attributes--attitudes, expectations, behaviors, qualities; the representation of these attributes then becomes a part of the infant's psychic structure and subjective reality (Schafer, 1968). They constitute self and object representations which modify the ego, influence the organization of experience and the perception of the self, and signify emotional attachments to the objects identified with.

This conception is based on Freud's original notions of identification as presented in Mourning and Melancholia (1917) and in Group Psychology and the Analysis of the Ego (1921). In these works, Freud states that identification "endeavors to mold a person's own ego after the fashion of the one that has been taken as a model" (1921). He stresses that identifications are expressions of the earliest emotional ties to other objects. These are contrasted with, and at times are substitutes for

(in periods of regression or stress, for example), later forms of object-relations, direct libidinal object-choices. Here, Freud distinguishes between the wish to be a particular person-object (by introjection of the object into the ego) and the wish to have that person object (as an object of libidinal cathexis). Freud further describes how an identification can be understood to be a replacement of an important object, whether lost through renunciation--as a means of resolving the oedipal complex--or through death, separation, rejection, etc. In each instance, traits or features of the lost object are taken into the self; the consequent modifications in psychic structure express a resemblance to the original object, maintaining it, and the tie to it--often ambivalent--in the psyche.

Identifications, therefore, are essential to the ongoing construction of the self and to the formation of the ego, superego, and ego-ideal. While incorporating selected aspects of the surrounding world, identifications simultaneously facilitate self-object delineation. Primarily occurring on an unconscious level, they may have preconscious and conscious elements. They may be partial or global, drawing on particular features of an object or on the entire object. They represent both primitive levels of development, involving part objects, such as "the Breast," as well as more advanced phenomena, such as the acquisition of cultural values and moral standards. They may serve adaptive or defensive purposes. The more consistent and adequate the care-taking experience, the more positive will be both the tie to the object and the nature of the identifications. This, in turn, strengthens ego-functions. For example, the ability to identify with the nurturing behaviors of the

primary caretaker gradually enables the infant to gain internal control of impulses, furthering the capacity to delay gratification and fostering the growth of new skills and more effective means of coping with distress and attaining satisfaction. Reality-testing and secondary process thinking are enhanced. The more integrated the identifications, the firmer the basis for a positive and stable self-image and for advances in object-relations.

Conversely, identifications tend to be negatively-tinged and defensive in function if the relationship with the important object is primarily anxiety-laden or fraught with frustration or aggression. The infant then internalizes mental representations of a distorted or destructive nature--for example, the "devouring frightening parent." These may then become integrated into the infant's self-representations, or may exist as internal objects in the form of "bad" or "persecutory" introjects. Such introjects are experienced as alien or split-off from the sense of self, contributing to ego-fragmentation and faulty development. In normal development, both positive and negative identifications are present; it is assumed, however, that the good aspects tend to dominate or neutralize the bad.

All identifications can be understood as attempts to master reality--internal needs and impulses and external stimuli and demands. All result in alterations in psychic reality, whether leading to further integration and consolidation of existing personality traits; or resulting in the reorganization of psychic structures. In the course of these developments, self and object representations are increasingly distinguished. The infant comes to recognize more clearly the existence of objects as

both "out there" in the objective world, as well as internal mental representations.

While Freud explored the formation of pre-oedipal identifications, he focused particularly on the role of identifications during the oedipal phase and the subsequent evolution of the superego and ego-ideal. Others, like Winnicott and Jacobson, are especially interested in the earliest, most primitive identificatory processes, introjects, and projections. Jacobson also elaborates on the concepts of the superego, while Erikson stresses the crystallization of identifications during adolescence. However, whatever the content of the identification or the phase of development highlighted, the underlying mechanism is the same. The concept of identification attempts to account for the construction of a sense of identity through the affective ties to others.

According to psychoanalytic theory, the individual is not solely the sum of identifications. A balance between both identifications and ongoing object relations is necessary for optimal development (Schafer, 1968). The infant is consciously and unconsciously selecting and organizing experience. In every action and interaction, potential aspects of the self are projected and may be realized. At the same time the reactions of others to the infant as an object affects the infant's experience of the self. Through the "mirroring" responses of the caretaker, the infant perceives aspects of the self which contribute to the further consolidation of identity (Lacan, 1949; Mahler, 1975; Winnicott, 1965). The earliest experiences of the body and the primary identifications establish a core feeling of selfhood which, in normal circumstances, remains central and stable. Around this core of bodily and mental self-images, different

aspects of personality coalesce and become manifest. A basic sense of identity is established: a feeling in the present of continuity with one's past and on into one's future development, along with a capacity for change and for encompassing and integrating changes in the perception of the self.

The Cognitive Concept of Identity

As has been noted, in contrast to psychoanalytic theory, Piaget and his collaborators stress the cognitive aspects of identity formation. They seek to discover and describe the changes in the child's understanding of the concept of identity itself. Their research traces the underlying transformations in the child's thinking and delineates the specific behaviors and intellectual assumptions which constitute distinct stages and psychic structures in the development of identity. These changes are largely understood in terms of the advances in cognition acquired through continued experience and the mutual processes of assimilation and accommodation. As in psychoanalytic theory, the direction of psychic growth is toward both further differentiation of subjective and objective reality and greater integration and internalization of selected aspects of experience. Differently from psychoanalysis, however, the emphasis is on the reasoning the child relies on in grasping a difficult logical concept and its application to the self.

Just as the sense of identity develops by degrees, so, Piaget and his colleague Voyat demonstrate (1968, 1970, 1976), does the concept. They note an apparent paradox:

> the principle of identity is perhaps that, of all the logical 'principles,' which remains the least identical to itself in the course of development. (1968, p. 2)*

*My translation.

It undergoes considerable modification as the infant progresses from the practical intelligence of the sensorimotor period and the construction of the permanent object, to the more advanced levels of intellectual functioning, of concrete, and finally, abstract logical operations. The sense of identity gradually takes shape as the individual's experience and understanding become increasingly independent of direct perception and action. This achievement is the outcome of the ability to perform the mental operations and manipulations necessary for comprehending both the variant and invariant properties of objects and to recognize their qualitative and quantitative aspects. Only then can the stability and continuity of an entity such as the self be recognized and "conserved." Despite changes in certain features, due for example to physical growth, aging, changing social roles, the child comes to understand the integrity of identity.

It is ultimately through the experienced continuity of the child's activity that an awareness of identity is formed. Piaget and Voyat (1968) point out that the concept derives from the notion of object permanence and only gradually becomes integrated into the system of "true" conservations and the transformations these encompass. They outline four phases in the development of the concept. These illustrate the child's progress from initial dependence on the perceptual features of objects and the inability to think in terms of reversibility or anticipation, to the eventual distinction between the inherent, essential qualities of an object, its variable aspects, and the conservation of quantity.

Identity is first understood as a qualitative notion. An object is seen to remain the same, despite transformations, for example in shape,

by ignoring the outward changes in the form and focusing on the actions performed on the object: the quality or substance of the object remains the same because "you still do the same things to it." The reasoning behind this "generic" identity underscores the fact that what may appear to conservation of objects is, in fact, "pseudo-conservation"; the child is not taking into account either the perceived changes in the object, nor is the thinking based on the properties of the object itself. In the second stage the child denies identity of an object because of the changes in perceptual features. In the third, the qualitative identity of the object is again recognized and its stable features acknowledged. But, although changes in form are not overlooked (as they are in stage 1), the child is still misled by these changes and continues to deny conservation of quantity. In the final stage, the child recognizes both the qualitative and quantitative aspects of identity. The operations are subsumed within a larger framework of concrete operations which include reversibility and compensation--internalized behaviors necessary for the conservation of objects.

Based on these findings and on the cognitive-developmental work of Kohlberg, De Vries (1969) further explored the notion of constancy of generic identity--"the belief that the identity of a living being is invariant" (p.56). She analyzed the reactions of boys ages 3-6 to the apparent transformations (through the use of masks) of a live cat into a dog or rabbit, and of a human into a wolf or chicken. Her data yielded a Generic Identity Scale which reflects an age-related developmental sequence in the acquisition of constancy ranging from "no constancy" to "the denial of the possibility of identity change." Like Piaget and Voyat, De Vries believes that the development of constancy of generic

identity depends on changes in the structural features of the child's thought, with constancy of qualitative invariants occuring prior to, and leading to, conservation of quantitative invariants. Her research supports the belief that children and adults experience reality and identity differently due to qualitative differences in cognitive structures. These structures themselves constitute an essential aspect of the child's developing identity, rendering reality coherent and meaningful.

The Maintenance of Identity and Human Growth

When the notion of identity is applied to the human body and the self in relation to the transformations which occur due to growth, the situation becomes slightly more complicated. For in this instance, of course, the physical changes which take place are not reversible, and the size of the object (person) is changing, while the global form and structure remain essentially the same (the opposite of conservation). The child must take into account these changes while retaining a sense of the constancy of the self. According to Piaget, this task is accomplished through internalized imitation. The child is able to manipulate mental images, to think about objects by constructing mental representations of them which can then be "acted on" intellectually: imagined, contemplated, experimented or played with, and understood. Thus, although there is no direct concrete action that can reverse growth to become small again, it can be imagined. By transforming images internally, the child can think about once being a small baby (as distinct from playing at being a baby). The child can consciously evoke a mental picture or idea of the self in the past. Conversely, changes occurring in the future due to growth can

be conceived of. The child can imagine that developmental reality by projecting the self into the future, a continuation of the present self. The central awareness of being "me," an entity continuous in time and space, persists. Constructed out of the child's personal history, the concept and feeling of identity is arrived at by degrees.

Psychoanalytic theory also points to the child's capacity for conscious logical thinking, in the form of secondary process functions and memory, to explain this ability to reflect on alterations in the self. However, by including the unconscious affective aspects of this phenomenon, an important dimension is added. Aside from imaginatively transforming one's self, consciously thinking of being in a different state or condition than at present, the concept of regression can be understood as an attempt to actually reverse the process of growth. Although the physical reality cannot be altered, the individual under stress may seek to deny it and to experience the self as an infant. The direction of psychic functioning is reversed: unstable intrapsychic structures and defenses are disturbed, disrupting the individual's sense of integrity. Primitive identifications and ways of thinking and behaving may come to the fore. Psychically, the individual reverts to an earlier mode of experiencing, an earlier state of being. Under such conditions, there is a marked change in the person's sense of identity and a failure to maintain a secure feeling of selfhood. According to psychoanalytic theory, then, unconscious affects may have drastic, disruptive effects on reality-testing and cognitive functioning in general. Intellectual functioning can, therefore, never be understood to be distinctly separable from emotional and psychic functioning. Disturbances in one sphere are reflected in disturbances in the other, ultimately pointing to the instability of the underlying structures.

Piaget disagrees with this view. He believes that there is a functional but not a structural relationship between affect and cognition. Voyat (1980), however, has indicated, based on his research with schizophrenic children, that from a developmental perspective there appears, indeed, to be a relationship between affective disturbance and disorganization in cognitive structures. Although his findings do not show evidence of regression in these children's cognitions, they do point to failures in achieving structural integration and to inconsistencies in the usual sequence of cognitive operations. Voyat attributes this to a "disruption in the normal equilibrium between assimilation and accommodation": assimilation predominates and interferes with accommodation to reality (1980). The consequent cognitive disorganization "might very well be the result of affective factors." Similarly, it is possible to conceive that adults who have achieved higher levels of cognitive integration and then undergo severe emotional regression suffer structural disintegration and disorganization as a result of the disruptive effects of intense affect.

Despite their differences, both psychoanalytic and Piagetian theory assert that identity-formation depends on the interaction of maturational and experiential factors which gradually give rise to organized psychic structures. Both affect and cognition play central roles in this process. The maintenance of identity depends, then, on the continued stability, integration, and flexibility of these internal structures in the midst of life's changes. Both theoretical viewpoints emphasize the individual's act of self-creation in dynamic relation to the surrounding environment. From both perspectives, the awareness of identity and the increased capacity for self-expression, self-reflection and the accurate perception of reality, are the hallmarks of healthy development and mature functioning.

Chapter II

The Review of the Literature

The Role of the Mental Image

The first major task of the individual in the process of identity-formation is the construction of a relatively stable world of objects and a differentiated self. The clearest indication of this achievement is the child's use of the word "I" to represent the self. As Zazzo (1948) noted, the acquisition of the personal pronoun is closely tied to the development of the self-image and the capacity for symbolic representation. Zazzo traced the transformations in his son's use of self-referents, between the ages of three months and two years and nine months, in response to his own mirror image. Zazzo's findings, which have been reconfirmed by later investigators (e.g. Fraiberg, 1977), demonstrate the parallels between the child's verbal development and the progressive stages in the evolution of the underlying self-concept.

The general sequence can be described as follows: between the ages of 2 - 2 1/2 years the child moves from the use of his/her own name, to the use of the syncretic "I"--the "I" as a part of a verb form such as "Iwanna"; at about 2 years 8 months the non-syncretic "I" appears--the "I" that means "I exist," "I am an 'I' to me; you are an 'I' to you" (Fraiberg, 1977). Thus, when the child looks in the mirror and says, "It's me," the concept of the self, in which the self is taken as an object, can be said to exist. This use of "I" is more than a grammatical achievement; it reflects the psychological constitution of the self and the use of mental representations. Fraiberg, who researched the development of blind children, states:

> Even when there are no mirrors and no pictures to consult, self-image evolves through increasingly complex forms of mental representation in which the body self is given objective form . . . . Self-image, which Zazzo suggests is a double, a replicate, a kind of mirror image of one's own person, is literally a picture of oneself, however distorted that picture may be. 'I' is the externalization of that picture into a community of pictures each of which is an 'I'. (1977, pp. 266 and 269)

Prior to this psycholinguistic accomplishment, the child demonstrates, through behavior and verbal abilities, a growing awareness of autonomy and an increased capacity for interacting effectively with the environment, both through direct action and beginning symbolic representation. These advances result from the interaction of both affective and cognitive experiences which contribute to the coordination and control of the child's developing motor, intellectual, and social skills. They depend increasingly on the child's ability to construct and use symbols--whether in the form of gestures, words, objects, or mental images--which will ultimately culminate in the child's capacity for abstract thought.

As has been indicated, Piaget, like psychoanalytic theorists, considers the mental image as central to the formation of a sense of identity. The differences in viewpoint lie in the understanding of the process by which the mental image develops and the timing of its first appearance. According to Piaget (1969), the mental image develops late in infancy, around 18 months-2½ years. It is one of the five distinctive behavior patterns that Piaget defines as constituting the symbolic or semiotic function. Although these behavior patterns occur almost simultaneously, Piaget orders them in a sequence from least to most complex: deferred imitation, symbolic play, drawing, mental image and verbal evocation. The mental image arises as the result of increasingly internalized imitations

derived from the previous achievements of the sensorimotor period. Only when the child can represent something--an object, behavior or event, whether present or absent perceptually--by means of a symbol or sign, can a true mental image be inferred. With the appearance of the semiotic function, the child's powers of expression and understanding are greatly expanded.

Piaget emphasizes that a "true" mental image or symbol is one that is clearly differentiated from what it represents, and one that can be evoked in the absence of that which it signifies. Prior to this, Piaget assumes, the infant is incapable of forming mental representations because actions are not sufficiently interiorized and dissociated from direct experience. Nevertheless, the infant does engage in a system of significations during the sensorimotor period: The meanings that the prerepresentational infant gives to objects and actions are conceived to be a part of those objects and actions and not yet distinguished from them. These are the schemes of the practical intelligence of the sensorimotor phase, the mental structures which are the precursors of the mental images of the preoperational period. The schemes are the structured or organized behaviors or action patterns which the infant acquires through assimilatory activities (Piaget, 1969). Since they are still tied to perception and action, they constitute the intermediate phase between direct physical action and fully internalized thought.

Because the scheme partakes of the object or action it comprehends, rather than comprising a related but autonomous level of psychic functioning, signifier and signified are not differentiated, and symbolic representation cannot yet be said to exist. For example, when the scheme

of the permanent object is being constructed, the infant is dependent on perceiving a part of the object to search for the whole object (8-13 months), or on viewing the movement of the object in order to pursue it (13-18 months). If these perceptual cues are absent, there are no apparent indications that the infant has an inner image of the object which is influencing behavior. At this stage, Piaget refers to the part or movement of the object as an "indicator" of the object, not a differentiated symbol or sign.

Similarly, Piaget believes that until the important persons in the infant's life (including the self) are adequately differentiated from the perceptions and actions performed in relation to them, the infant cannot construct mental images of them. Thus, during these early phases of development, the infant repeatedly fails to separate signifier from signified, a confusion which must be overcome for the infant to have both a clearer grasp of objective reality, as well as a basis for abstract thinking and increased social communication. Although with the advent of the symbolic function this distinction becomes manifest, it is only slowly consolidated. Lapses in the infant's or young child's capacity to distinguish mental image from reality continue to occur and are evidence of the constructive process taking place within. At this point, children of the same developmental stage may nevertheless demonstrate varying degrees in their ability to form, manipulate, and understand symbols.

For example, Piaget has described in detail the gradual stages through which the child passes in the use of words or names for things and people (1929). He observes a phenomenon which he refers to as nominal realism, the belief that the name of a thing is part of the essence of the thing

itself: the name belongs to, is located in, and arises from the object, rather than being assigned to it. This confusion of name and thing can be inferred in children who are just beginning to speak and is typical of children up to as late as 6 years of age. Piaget designates this behavior as a kind of "realism" or "adualism" because the child lacks an adequate awareness of a self who is the thinker whose thoughts are separate from the objects contemplated. The failure to recognize the dualisms between internal concept and external object gives rise to the notion that the name of something has an intrinsic value essential to, and identified with, the object, instead of being a chosen sign for it. Werner (1978) refers to this primitive form of symbol as a "protosymbol"--symbol and referent are still intertwined.

As the child begins to realize the subjectivity of thought and becomes conscious of a thinking self, so begins the recognition of the arbitrary nature of names. Thus, according to Piaget, by the age of ten or eleven the child understands that names are assigned by people and do not emanate from objects, that names are purely signs which in themselves do not contain the idea of the signified object and therefore could be replaced by other names. The meaningfulness of a name becomes understood as a function of associations to it. This intellectual accomplishment occurs as the child's thinking becomes more socialized, less egocentric, and more cognizant of objective reality. Later in development, fluctuations in this capacity to distinguish thought from object and sign from signified would no longer be considered phase-appropriate. Instead, confusion between inner and outer worlds would indicate either the child's failure to have achieved adequate differentiation and synthesis of self

and object, or, the instability of the obtained mental structures under particular circumstances, such as anxiety or other intense affect. In such instances, vagueness of boundaries can be an indicator of regression rather than a condition of progressive development.

In the course of the development of the mental image, Piaget emphasizes the underlying functional continuity of the infant's behavior--the tendency toward increased organization of experience and adaptation to reality. For Piaget, structural discontinuity is an inevitable consequence of this process: The infant progresses from the schemes of assimilation to symbolic structures, from the ability to recognize objects to being able to imagine them, conjure them up. Thus, he accounts for the infant's early recognition of certain people or objects in terms of the associated memories and behaviors the infant has in relation to them which their actual presence elicits. Contact with a particular set of features may be said to trigger recognition of the object.

The early existence of the recognitive image has recently been amply demonstrated by Lewis (1979) in his studies of visual recognition in infants. Interested in how the child constructs a concept of the self and what the dimensions are by which the child recognizes the self, Lewis observed the responses of infants up to three years of age to mirror and video images and photos of themselves and others. He noted a variety of behaviors--attention, pointing, touching, smiling--which suggested the infant's ability to discriminate between the self and others based on particular cues. Prior to 12 months, visual recogniition of the self was not overtly evident; that is, although rudimentary knowledge of the self exists, the ability to express this motorically or linguistically does

not. By 15 to 18 months, however, infants responded differentially to images of themselves and others in measurable ways--both verbally and with gestures. Lewis asserts that these discriminations are based primarily on "categorical" or social cues such as "babyness," sex, or age. Between 18 and 21 months, discriminations become more refined and are based on distinct perceptual cues, such as particular facial features. By about 24 months, correct verbal labelling of images and the use of the personal pronoun occurs, in general accordance with the findings of Zazzo and Fraiberg.

Like Piaget, Lewis supports a constructivist approach: The self-image is constituted through the interaction of the child's internal structures with the external world. On-going experience results in the transformation of these internal structures and the elaboration of the self-concept. Lewis stresses the interdependence of the evolution of self-awareness and the development of knowledge of others. In contrast to Piaget, he places special emphasis on the social sphere, rather than on the world of inanimate objects: "the social world, because of its similarity to the infant, plays a greater role in the establishment of the self than the nonsocial world" (1979, p. 225). The infant's smile evokes the mother's smile; there is an identity of action and outcome, of self and other. Lewis also focuses on the interrelation of affect and cognition: The feeling or sense of self involves both emotion and the evaluation of emotion, a cognitive act. Also Lewis differs from Piaget in suggesting that the permanent object occurs as early as 8 months, at about the time that Piaget believes the the object concept is just beginning to evolve. Nevertheless, both theorists assert that recognition memory occurs at about this time.

Evocative memory, according to Piaget, is expressed through symbols and signs. Symbols are differentiated signifiers which are personal. They are constructed by the child and given idiosyncratic meaning. (Autistic thinking would be an extreme example of this as it is characterized by a completely personalized system of meanings.) Signs, like language, are collective in origin; they have conventionally agreed upon and shared meanings. The child must conform to external models to acquire and understand signs, whereas symbols can be created at will and without reference to others. Symbols may include, in this sense, a "personal language"--gestural and verbal--with specific meanings, or may consist of any objects or behaviors which the child chooses to endow with representational value. Piaget (1951, 1969) emphasizes the "motivated" aspect of the child's symbolic constructions and their affective and intellectual importance in the child's play. Through symbolic play or "make-believe" reality is assimilated to the child's needs, wishes, and fantasies, rather than the child having to consistently accommodate to the demands of the real world. In this way, the child can more successfully come to terms with difficult realities and express and resolve inner needs and conflicts at his/her own developmental level.

The child's growing verbal abilities enhance social contact and intellectual competence. In addition, the use of communal signs reflects a gradual change in the child's egocentrism in the Piagetian sense: The child must increasingly take into account the intentions and perspectives of others, rather than perceiving the world solely from the needs or views of the self. This decentering process, which continues through the period of concrete operations, coincides with Werner's concept of

"distancing"in the evolution of symbol usage wherein greater interpersonal distance necessitates more "autonomous" (less egocentric or idiosyncratic) symbolization for meaningful communication (1978). Like Piaget, Werner stresses the general developmental tendency toward increased separation of self and object, object and image, symbol and referent. Each of these "entities" themselves becomes more differentiated and complex as the child develops a distinctive sense of identity.

The semiotic function, then, is the source of all the varied ways in which the child comes to represent the self and the world. The mental image must be inferred from the child's behavior. The nature of the internal image will be reflected in the child's external representations. These, in turn, will be expressive of the level and underlying nature of the child's psychological functioning and structures, both affective and cognitive. For example, in his observations of children's drawing skills, Piaget (1971) has noted two important distinctions in the kinds of mental image that exist at different stages of development. The earlier type of image is the reproductive image in which the child evokes an experience perceived in the past. A later development, which occurs during the period of concrete operations, is the anticipatory image. It involves the child's ability to imagine movements or changes in position (kinetic changes) or form in the object to be represented. Although a reproductive image may also include previously observed movements and transformations, during the pre-operational period the child's images are almost always static, focused on isolated states or fixed configurations. At this stage, concentration on an object's perceptual features in its static state dominates. The child does not attend to the transformational

aspects, nor integrates past or future conditions. The flexibility and power of the child's images are limited.

Only with the development of the concrete operations does the child begin to comprehend the processes underlying perceived transformations. The operational child is able to coordinate and encompass both states and transformations, including imagined future changes. Piaget (1971, p. 53) suggests that this "imaginal anticipation . . . decomposes and recomposes" the model and "reconstitutes the object" as an image which includes anticipated and reanticipated changes in the object. He emphasizes the active, constructive process the child engages in to conceptualize the object. In so doing, Piaget stresses the relationship between the figurative and the operative aspects of the child's cognitions. The former refer to the perceptual, imitative, imaginal "actions by which the child produces a 'copy' of [a static] reality"; the latter refer to the internal actions or operations (conservation, reversibility, compensations) performed by the child "whose result is some transformation or change of reality" (Ginsburg and Opper, 1969, p. 153). The imaginal representation is dependent on and subordinate to the operatory mechanisms. Thus, as the child's operational understanding increases, the mental image of self will correspondingly become more flexible--more inclusive and expressive of new aspects of identity--as well as more internally consistent and integrated.

Psychoanalytic theory also posits the gradual construction of the mental image of the self and its increasing complexity and relative stability in the course of normal development. Schilder (1938) describes this process in detail, focusing particularly on the formation of the

body-image during the first year. He states: The body image is "not a structure but a structuralization in which continual changes take place." These changes are dependent on continual contact with the world. Following Freud's early drive-orientation, Schilder traces the shifts in libidinal cathexis which eventuate in the formation of a coherent and consistent self-image. Like Freud and Greenacre, Schilder sees the body-image as the core of the self-image and the first step in the development of the ego. Schilder begins with Freud's notion of primary narcissism during which libido is considered to be centered on the infant's body as a whole. This is followed by a phase of auto-erotic tendencies during which instinctual energy is alternately concentrated on different body parts which then take on particular interest and significance for the infant. During the oral phase, for example, the infant's primary mode of finding out about the world and gratifying needs is through the mouth: Libido becomes centered on the mouth, its activities, sensations, and the objects related to it (e.g. breast or bottle). These experiences, therefore, will constitute an important component of the emerging self-image. Visual and tactile experiences, of course, enhance these developments. As psychic energy is redirected toward other body parts in the course of psychosexual development, each stage will give new meanings and value to the body image. Consequently, the self-image varies at each stage.

As the outside world takes on greater reality, and the self and object become more distinct, libido is increasingly directed out toward external objects, as well as turned back onto the developing ego in the form of secondary narcissism. The outlines of the body are delineated: The child "creates" it as a physical object in the world, and forms a

psychic image of it which is cathected with libidinal energy and endowed with meaning. Certain body parts may come to have greater psychic significance for the child depending on the degree of libidinal satisfaction, or frustration, associated with them. Affective factors influence the child's valuation of different body parts and their psychic representations.

In addition to tracing the course of instinctual development, Schilder, also like Freud, argues the importance of the real world of people and objects in facilitating or inhibiting instinctual expression. Schilder stresses this object-relational aspect in his discussion of the evolution of the body-image and the sense of self. The discovery and exploration of the nature and qualities of the body occurs in the context of relationships with other people. This includes observing their bodies and experiencing their behaviors toward one's own body as well. Schilder elaborates on the factors which contribute to what he refers to as the postural-libidinal model of the body-image. He begins with the infant's sensorimotor activities--all the perceptual behaviors and movements involved in discovering the properties of the body. Visual, tactile, proprioceptive, and kinesthetic sensations provide essential information about the body and its boundaries, while increased motility and motor coordination foster the ability to actively explore and experiment with the body and with other objects. The pleasure associated with erogenic zones and experiences of pain enhance awareness of the body, resulting in an expansion of the body-schema and of ego-functions. Schilder considers imitation and identification to be important elements in the process, contributing to the growth of personality and constituting the basis for the child's understanding of others.

Like most classical psychoanalytic theorists, and in contrast to Piaget, Schilder assumes that the infant can form mental representations from birth, and that the self-image, like the ego, is in the process of construction as soon as the newborn enters the world. The images formed may have both conscious and unconscious components and are attempts to synthesize and organize inner and outer reality. These internal representations are presumed to be fleeting, partial and unrefined. Freud postulates that they have the quality of hallucinations, like the images in dreams, and that they arise from the same source: the pressures of internal drives which the infant attempts to cope with by imagining a satisfying object. For example, the infant experiences a need such as hunger and, in the absence of actual gratification, "pictures" the desired object. This image is assumed to be extremely primitive, lacking articulation and coherence. It appears to have only a temporary satisfying effect on the infant. At first it occurs only in the presence of a need. Through repeated experiences of need, frustration, and gratification, it becomes a more complete and integrated image, and finally, develops into a concept, such as object permanence. These early hallucinatory images are essential to the beginning organization of memory. According to Rapaport (1960), they are "the primary model of thought." They are the source of the infant's ability to delay gratification, fostering ego development and secondary-process thinking.

Classical psychoanalytic theory, then, has emphasized the role of the infant's need state and the properties of the object on the formation and the retention of mental images. The infant's ability to maintain cathexis of a mental representation is strengthened by the intensity of

the need and the degree of the object's gratifying qualities. Piaget, on the other hand, believes that neither the infant's state nor the particularities of the object significantly influences the infant's representational abilities. However, recent research attempts to integrate Piaget's findings and psychoanalytic assumptions seem to confirm that these conditions do have an important effect on behavior. Moskowitz (1978) found that the intensity of a need, such as hunger, tends to disrupt, rather than facilitate, the formation of the object concept. Based on a cognitive Piagetian framework, her experiments also demonstrate that regardless of the gratifying properties of the object, the infant's performance in relation to it (e.g. searching for a hidden object) was impaired when the need state was heightened. She concludes that although internal representations may arise in relation to needs, these already established images may be temporarily disrupted under particular circumstances at a point when the infant is not yet capable of consistent and stable cathexis of objects. Nevertheless, Moskowitz points out that though the immediate effect may be that of interference with the image-making process, in the long run it appears that these experiences have a structuralizing effect. Eventually, accumulated experiences enable the infant to maintain internal representation despite inner needs or external realities.

Fraiberg (1969) also attempts to explain the discrepancies between psychoanalytic and Piagetian theory in terms of the timing of the acquisition of the object concept and in the kind of mental image involved. Like Freud, she believes that the connection between drives, memory and images in dreams parallels the image-forming process in infants when

awake and in a state of need. This is the basis of later symbol formation on both conscious and unconscious levels. Thus, the infant is assumed to be capable of forming images whenever a drive tension predominates. Based on behavioral observations, Fraiberg argues that these hallucinatory images are always dependent on the presence of a stimulus, whether in the form of an internal drive or an external cue, such as perception of the object. Such early images are stimulus-bound and do not appear to be elicited or sustained independently of need or object. Fraiberg suggests that these images are, therefore, more in the nature of recognition memories--when a stimulus revives previously cathected memory traces--than of "true" mental images in Piaget's sense. Thus, Fraiberg believes that the mental representation of 6-8 months posited by psychoanalytic theory is qualitatively different from the kind of complex evocative image formed and retained at around 18 months independently of any immediate stimulus. This conforms to Piaget's findings. Until the middle of the second year, images are diffuse and in the nature of recognition memories. With the consolidation of the object concept, representation occurs in the absence of specific drives or objects and is increasingly differentiated, complex, and creative. According to Fraiberg, these later images can be understood as evocative memories, coinciding with Piaget's mental image which ushers in the beginning of the symbolic function.

The enduring mental image, then, is a development of late infancy and signifies the coming together of a complex set of cognitive and emotional factors. Consolidated out of an assortment of diverse and apparently fragmentary impressions, it becomes the basis for more sophisticated and integrated groups of images and for internalized thoughts.

Sandler and Rosenblatt (1962) suggest a distinction between the terms image and representation to indicate different concepts; a mental image consists of fleeting impressions and experiences of body and self-states, whereas the mental representation, a later development, is built out of these earlier images and constitutes an enduring mental organization or schema. The latter is similar to Piaget's "true" mental image and implies the acquisition of the object concept in its cognitive and affective forms. In psychoanalytic terms, the infant is assumed to be capable of maintaining cathexis to the internal representation of an experience, object, or person, including the self.

Sandler and Rosenblatt also make a useful distinction between psychic structures such as the ego, and the representational world, as different aspects of the self. It is a function of the ego to construct a representational world which serves as the basis for its further adaptive and regulatory processes. Symbols, a specialized part of this representational world, expand the ego's capacity for dealing with inner and outer reality. According to Sandler and Rosenblatt, the self-representation refers to "that organization which represents the person as he has consciously and unconsciously perceived himself," which includes the capacity for modifications in that representation (1962, p. 134). The self-representation, like the object-representation, may alter its "shape" depending on the experiences of the moment--an instinctual need, external pressure, etc.--which qualifies the person's immediate experience of the self. The process of identification is seen as central to these changes in psychic representation, as distinct from the process of introjection which is assumed to result in more dramatic changes in psychic structure, as for example, in

the formation of the superego. Nevertheless, Sandler and Rosenblatt believe that modification in self-representations leads ultimately to changes in the structure of the ego. These concepts will be discussed more fully later.

The move from Freud's drive-oriented theory to a more structural and object-relational perspective in understanding the development of the image of the self is exemplified in the work of ego-psychologists such as Jacobson. While retaining Freud's overall concept of drives, she revises some of his notions pertaining to their nature and functioning. She argues (1964) that primary narcissism and masochism are meaningless concepts at a point when there is assumed to be no distinct "self" to cathect. She views secondary narcissim and masochism as involving the cathexis of self-representations, not the ego, with libido and aggression. Jacobson also assumes that just as self and object and psychic structures are not distinguished at birth, neither are the drives yet differentiated into libido and aggression. Like Mahler, she posits an undifferentiated matrix which she refers to as the "primal psychophysiological self" which constitutes the state of the newborn infant. Under the impact of internal drives and external factors, the self and psychic systems evolve. Jacobson emphasizes the influence of the emotional and social environment in this process of differentiation, as well as the genetic and adaptive aspects.

Jacobson clarifies some of the conceptual confusion about the self-image by distinguishing between the terms ego, self, and self-representation. Her definitions help trace the process by which the self and the feeling of identity are built up from these various components. By ego, Jacobson means a psychic structure or system of mental functioning which develops

in conjunction with the distinction between self and object world and enhances adaptation between them. The ego develops in relation to, but separately from, the id and superego systems or structures. It is responsible for the organizing, synthesizing, differentiating, reality-testing aspects of the personality. The ego's functions include behaviors such as perceiving, remembering, thinking, motor control, affect and defense. The term self, according to Jacobson, refers to the entire person, including all bodily and psychic parts. It would therefore encompass the ego as well as all the mental representations of the self, while being comprehended by the ego. Finally, self-representations are all the "unconscious, preconscious, and conscious endopsychic representations of the bodily and mental self in the system ego" (1964, p. 19). They are comprised from the various fluctuating images of the self which eventually become integrated and cathected with instinctual energy. Object-representations are similarly formed out of the manifold impressions of objects derived from the infant's relations to them, a development which again stresses the simultaneous separating-out and consolidation of self and object worlds.

Just as there is a lack of distinction between inner and outer reality at first, so self and object image may often be merged or fused according to Jacobson. All positive experiences may be perceived as self, and all negative as non-self. Jacobson's description underscores the distinction between objective reality--things and people as they "really" are--and the subjectively experienced sense of self and objects consisting of the self and object representations. This view has its parallels in Piaget's theory: At this early stage of development, the infant has its own schemas

of reality which are only partial and frequently distorted pictures of objective reality, such as animistic concepts. Similarly, Jacobson argues that the earliest images of the self are vague and constantly changing. They consist of wishful, as well as realistic, aspects of experience. Based on both pleasurable and unpleasurable experiences--internal and in relation to other objects--these images are at first unstable and often distorted, reflecting the primitive nature of the infant's reality-testing and the influence of drives and affects on their formation. The representation of other objects is also subject to these influences and distortions. In the course of normal development, however, based on optimal experiences of gratification and deprivation, more consistent and "more or less realistic endopsychic representations of the object world and of the self" gradually develop (1964, p. 19). With drive neutralization, primarily through the predominance of libido, representations also combine to form more accurate images of the world. For example, the "good" breast or gratifying object and the "bad" breast or frustrating object become merged at about 6 months to form a more realistic whole image of the object--the mother--containing both good and bad aspects. (This process parallels that described by Klein, whereby the infant comes to see both the self and other objects as having good and bad aspects, the source of the ambivalence the infant experiences during what Klein refers to as the depressive position.)

Jacobson points out, however, that early distorted representations based on faulty infantile perceptions may continue to influence the child's experience of the self and others: If opportunities for corrective experiences are not available, reality-testing remains impaired and self

and object images unmodified. These distortions or "misrepresentations" persist into adulthood and are particularly apparent in the transferences, projections and distortions which arise in the therapeutic situation and can be traced, in part, to faulty self and object images. Jacobson believes that psychosis is an extreme instance of the merging of self and object images: The individual suffers a regression to an early, undifferentiated phase during which the boundaries between self and object are blurred. The merging of representations results in the confusion in the sense of identity evident in psychosis. By contrast, the more realistically distinct self and object images become, the more the individual's sense of identity is strengthened and enhanced. Wishful self-images are distinguished from realistic representations of the self. Jacobson stresses that both kinds of images are essential to the sense of identity. Wishful self-images provide direction, point toward the future--what one wants to be or be like, therefore anticipating changes in the self, while realistic self-representations provide one with the sense of continuity between the present and the past. The enduring mental image, then, is fundamental to the formation of stable, consolidated self-representations and to an enduring sense of identity.

The Role of Imitation and Identification

As has been noted, imitation plays a central role in the development of the sense of identity. For Piaget, it is the essential mechanism by which the individual moves from "representation in action" to representation in thought. Imitation is the primary source of the mental image. Piaget's thinking is influenced by the work of Baldwin. Baldwin (Broughton, 1981) believed that actions upon objects are the source of all knowledge about

the self and the world. Through the interaction of sensorimotor processes and the environment, the individual constructs mental operations or "dispositions to act" (p. 399) which increasingly comprehend both inner and outer reality. These mental behaviors are dependent on assimilative and accommodative processes. The latter are especially important in imitation, through which new aspects of reality are "reproduced" by the subject, modifying already existing patterns or structures. Baldwin emphasized the role of imitation in the formation of the self and the social nature of his development. The infant acquires knowledge about the self in relation to others, and in so doing, acquires knowledge about others, first, through the reproduction or repetition of his/her own movements, then through the imitation of others and in comparisons with the self. Baldwin points out that each of the infant's attempts to approximate the behaviors and attitudes of others leads to increased understanding of others and, simultaneously, to further awareness of the self. The interpersonal aspects of this process are integral to his thesis, with imitation serving as the ultimate source of empathy.

Guillaume also focused on the role and nature of imitation in his direct observations of children. He stresses that imitation is not an innate behavior, but rather is learned by the infant and is itself the basis for further learning. Guillaume assumes that the association between perceptions and movements is only gradually acquired through repeated observations and practice in relation to external models. Accordingly, the source of the infant's impulse to imitate lies in the significance that a particular movement has for the infant, not in the intrinsic pleasure or interest of the imitative activity itself. Thus, while he emphasized the

organized, perceptive quality of the child's activity in the course of imitating, whereby perceptions constitute signals for movements, Guillaume sees this as occuring as a result of externally imposed training. The child's activity is assumed to be motivated primarily by some perceived end to be achieved through imitative movements, rather than by the interest that the activity itself holds for the child.

By contrast, Piaget, while agreeing that imitation is not instinctual but learned, argues that the imitative act itself is of intrinsic interest to the infant: "all movements . . . that are susceptible of repetition are from the earliest stages significant" to the infant, and it is "the possibility of reproduction which interests the child, i.e. the interest is not external to the action but immanent in it" (1962, p. 81). Objects, movements, events only become meaningful on the basis of actions upon them. In this way action and object are linked, both acquiring significance in the process of interaction. In imitation, the child attempts to "copy" reality through behavior; the act of reproducing some aspect of reality becomes gratifying in itself. In addition, it results in modifications of existing mental schemas through the process of accommodation. Accommodation predominates in this process.

Piaget (1962, 1969) traces the progression from imitation which takes place in the presence of a model to interiorized imitation which implies the existence of a mental image. He observes that the infant's first imitative acts of the sensorimotor period occur through a kind of "contagion or echopraxis." At this stage, the infant can only reproduce behaviors s/he has already performed spontaneously, actions that are familiar and already assimilated. Soon after, the infant becomes capable of reproducing

behaviors which are new, as long as the part of the body involved in the act of copying can be seen. As has been noted, the infant gradually becomes capable of deferred imitation, an achievement of the pre-operational stage. With the development of the concrete and then formal levels of operations, the child attains the realm of reflective representational thought, able to construct and manipulate images and symbols as well as abstract ideas. The early accomplishments provide the child with a basis for a concept of the self which combines both the realistic attributes of the self as an object--primarily through accommodative-imitation, as well as the fantasied and wishful aspects of that self--through the personal, unconscious symbols of assimilation.

Psychoanalytic theory also assigns an important role to imitation in the development of personality, linking it to the process of identification. Authors vary in their definitions and understanding of these concepts. However, there is general agreement that imitation often precedes and initiates identifications and refers to a mechanism involving relatively conscious acquisition of behavior patterns rather than to a process of unconscious internalization resulting in changes in psychic representations and structures. In addition, imitation and identification are usually distinguished by the quality of the emotional tie to the object: In imitative learning the child copies a model regardless of any emotional attachment (coinciding with Piaget's view) whereas identifications are usually motivated by, and dependent on, the child's object relations in a libidinal sense (Parsons & Shils, 1962; Meissner, 1972). Nevertheless, while imitation and identification constitute distinct and independent processes, they are intimately related and together contribute to identity formation.

As Meissner (1970a, 1971) has pointed out, some of the confusion about these concepts arises from Freud's original formulations about identification. The term referred to a variety of related processes--imitation, incorporation, introjection, and internalization--all associated in a complex fashion, but each not sufficiently delineated from the others, a problem which contemporary writers have attempted to correct. Freud, however, distinguished imitation from identification as being a simpler psychic phenomenon. In imitation there may be a conscious awareness of copying the behavior of another, accompanied by an underlying wish to be or become the other object. In identification, Freud suggests, the basis for resemblance is solely derived from an unconscious source and involves varying degrees of internalization in which the aim is to merge with the object, to possess the object, or to be like the object. This is conceived of as an internal process by which, in copying the representation of the object, the subject modifies self-representations, ego and/or superego structures. Freud (1900, 1917, 1923) differentiated between hysterical identifications and narcissistic identifications. The former are a consequence of the "assimilation" of an aspect of the object based on an unconscious shared element paralleling identificatory process in dreams. The latter result from the introjection of a lost or renounced object (as in superego formation). Freud (1921) also referred to instances in which identifications and structural change appeared to occur idependently of an object relation although such identification may eventually lead to an emotional tie.

For Freud, then, identification is the means by which personality is structured, with imitation playing a component role in this process. The

ego, arising initially from the impact of drives in relation to the environment, is strengthened and elaborated through its identifications with others. Freud (1923, p. 15) argues "the ego is that part of the id which has been modified by the direct influence of the external world." It is initiated by the perceptions of internal and external experience, of which bodily impressions are a primary source (thus "body ego") and is consolidated through its interactions with the environment in the form of identifications. According to Freud, the object is "introjected" into the ego; it becomes an integral part of the ego and, therefore, ultimately, an aspect of the person's identity. Since identifications take place in the context of object relations, Freud assumes that "the character of the ego is a precipitate of abandoned object-cathexes and that it contains the history of those object choices" (1923, p. 19). Further, "the effects of the first identifications made in earliest childhood will be general and lasting" (1923, p. 21). Freud then proceeds to describe how the ego ideal and superego become differentiated from the ego based on further identifications with parental figures.

Freud (1914, 1923) initially appears to have used the terms ego ideal and superego synonymously, that is, to refer to that part of the personality pertaining to conscience or sense of morality. The values and prohibitions conveyed by the parents are internalized by the child through the process of identification and become an essential part of the child's own psychic structure. This enables the child to move from dependence on external sources of authority for moral guidance to reliance on internal standards. The child sets up an inner "ideal"--what the child wishes to be like--based on the idealized images of the moral aspects of the parents and the self.

This ideal is then the standard by which the ego is measured and judged. Self-esteem is then dependent on the degree to which the child's behavior (including actions, thoughts, fantasies) meets the criteria of the internal ideal. Freud's thesis emphasizes both the intrapsychic as well as the interpersonal aspects of this development: The ego ideal or superego represents the child's relation to the parents, as it is derived from identifications resulting from oedipal conflicts. In the classic oedipal situation, under the pressure of object-libidinal drives toward the opposite-sexed parent and the aggressive drives toward the same-sexed parent (which, projected upon that parent, are then viewed as threats [castration, loss of love, loss of object] turned back on the self), the child is forced to "give up" the object-choice in order to retain the love of the parents. The child resolves this conflict by identifying with the parental prohibitions and thereby increases internal control over incestuous and hostile instinctual impulses. In this way, the ego masters the oedipal complex and a new psychic structure is formed: the superego, what Freud refers to as the "heir" to the oedipal conflicts.

Freud eventually viewed the superego as the mental agency or structure which enforces the standards of the ego ideal, thus further delineating these concepts and their relation to each other. The superego embodies the moral code of the society, through the parents, and in interaction with the child. Although it comprises the conscience of the personality, it is important to note that it functions primarily on an unconscious level. Freud stresses that in addition to the self-critical and self-evaluative functions of the superego which operate in conjunction with related ego functions (self-regulation and self-perception), the primary expression of

the superego is the experience of guilt--both conscious and unconscious. Accordingly, the greater the distance between ego and ego ideal, the greater will be the sense of conflict and guilt. As Freud points out, the impulses of the oedipal period are never completely resolved. The intensity of these childhood impulses determines the severity of the superego dictates in reaction to them. The early oedipal identifications form the core of the superego around which the child builds later identifications based on contact with other people, as well as with abstract ideals, ethical principles, etc. As Freud goes on to demonstrate, the formation of the superego has far-reaching consequences in the development of personality, in its healthy or pathological manifestations. The child, in desiring to love and be loved by the parents, becomes like them by identifying with them, furthering the process of identity formation.

Jacobson (1964), like Freud, in distinguishing between imitations and identifications, agrees that the child's early imitations are aimed at being or becoming the object, at maintaining or trying to reestablish the initial sense of union with the love-object. Jacobson emphasizes that imitations arise within the context of the close, empathic relationship between infant and caretaker. They are derived from even more primitive "reciprocal affectomotor identifications," based on introjection and projection, inherent in this relationship. These early imitations attempt to preserve the illusion of oneness or symbiosis. Outwardly, an intimate social exchange is evident--child responding to and imitating parent, parent reacting to and mirroring the child's behavior. Within the child, however, Jacobson assumes a complex intrapsychic process is taking place: The child is seeking to merge with the object by mimicking it, while

paradoxically, the interactions with the object necessarily result in increased recognition of the separateness of the object from the self. As this distinction grows and the child's tendencies toward increased autonomy and reality testing develop, the wish to merge is gradually replaced, or at least dominated, by the wish to be like the object. This leads gradually to the "true" ego identifications which take into account the distinctions between internal and external reality and between wishful and realistic self-representations. In Jacobson's view, imitations are a necessary precursor to the later, more integrated, stable identifications.

Thus, Jacobson describes the infant's transition, during the second year of life, from being dominated by oral incorporative fantasies involving total merger with the object, through imitative behaviors and global identifications, to more realistic identifications with selected aspects of significant others. Primitive narcissistic goals and wishful self-images are replaced by object-oriented ego goals based on partial identifications with realistic parental goals and attributes, and by the establishment of ego ideals and superego morality based on idealized self and parental images and internalized prohibitions and demands. Jacobson emphasizes the role of both aggressive, as well as libidinal, forces in this process and the "inherent ambivalence" that is reflected in all identifications: the child's wish to be both like, and independent of, the object. She disagrees with Freud that identifications are regressive in nature and result in the freeing of aggression. Instead, she argues that in normal development identifications do not replace object relations but rather arise and co-exist with them, absorbing aggression and redirecting it in productive ego-functions.

According to Jacobson, realistic self and object representations are built up and integrated in the ego, followed by identifications with love objects, which leads to the further expansion and maturation of ego-functions. Idealized images of the self and of the parents are combined to form an abstract ego ideal which the child then strives to live up to. This ego ideal along with the early superego identifications (which Jacobson believes develop in interaction with ego identifications) form the basis for the consolidation of the superego as a structure--the outcome of the oedipal complex as described by Freud. Jacobson agrees with Freud that the precursors of the superego, like the formation of the ego, occur early in the infant's life. She considers the reaction formations of the anal period ("sphincter morality") during the second year as forerunners of the self-critical functions of the superego. These, in conjunction with the idealized images the child constructs of the parents to counteract the intense impulses of the oedipal phase, are internalized along with parental standards to form the superego.

Jacobson stresses that the organization and integration of ego and superego identifications are not completed with latency. At this stage the child has developed the internal structures and sufficient reality-testing necessary to direct impulses and wishes more effectively and appropriately in regard to external reality. In addition, there is an increased awareness of self and a greater capacity to regulate feelings of self-esteem, which Jacobson defines as "expression of the harmony or discrepancy between the self-representations and the wishful concept of the self" (1964, p. 131). Nevertheless, Jacobson points out that it is not until the passage of the upheavals of adolescence, with the changes in body and body-image and the

resurgence of instinctual conflicts, that both ego and superego formation are more securely consolidated. Only then do the psychic structures have the stability and flexibility necessary to ensure a coherent sense of identity. She states, "Only the identifications which originate in enduring emotional object investments, and which result in gradual, consistent structural changes showing a definite direction, can fortify the inner feeling of continuity of the self. It is the proper balance between libido and aggression on which the success or failure of these processes depends" (1964, p. 68).

Erikson (1956), like Freud and Jacobson, asserts that identifications are essential to the development of psychic structures and ultimately result in changes in the perception and idea of the self. His understanding of identity formation focuses primarily on the ego and its synthetic functions. The organizing processes of the ego are responsible for the selection of significant identifications, the integration of a multiplicity of self-images and the maintenance of a sense of continuity of the self-representation which constitutes identity. Erikson refers to two aspects of identity: personal identity, based on the perception of self-sameness and continuity in time, which comprises the "fact" of existence (like Piaget's generic identity); and ego identity, the "ego quality" of this existence, the subjective awareness of "the selfsameness and continuity to the ego's synthesizing methods" (1946, p. 22). Ego identity involves the sense of "who I am," the recognition of the consistency and characteristic individuality of one's personality. It refers to the way the individual organizes experience through the workings of the ego.

Erikson views identity formation as an objective process which can be traced through the psychosexual and psychosocial development of the individual. He emphasizes the interpersonal aspects of this process: Identity evolves in the context of relations to others and is highly dependent on the given social and cultural environment. The infant's ego originates in interactions with this social reality. According to Erikson, the infant must discover ways of organizing and mastering experience which are effective and compatible with the attitudes and behaviors of others--i.e. with the "group identity." One way the infant achieves this regulation of internal drives with external realities is by forming identifications. These may be based on realistic or fantasied aspects of the significant persons in the child's life, through which the child experiments with different modes of being. Parallel to Freud's original psychosexual stages, Erikson (1950, 1956) postulates a sequence of psychosocial phases through which the individual progresses toward increased ego functioning and a consolidated sense of identity. He suggests that at each phase the individual is confronted by a particular issue or "normative" crisis due to maturation of new functions, accompanied by changes in drive or environmental demands. Each crisis compels the individual to integrate these new aspects of experience into already existing personality structures, resulting in changes in the sense of identity. These events then influence they way in which the next phase is approached and experienced.

While Erikson assumes that identity formation is a life-long process, beginning in earliest infancy and punctuated by periodic discontinuities and conflicts through old age, he places special emphasis on adolescence. He argues that during adolescence a coalescence of identifications occurs

which marks a crucial point in development. All previous identifications become subordinated to a different kind of identification; "it includes all significant identifications, but it also alters them in order to make a unique and reasonably coherent whole of them" (1956, p. 121). The sense of identity which emerges from the "crisis" of adolescence is relatively fixed and stable. It encompasses the achievements of the oedipal phase and the formation of the superego and ego ideal, as well as more mature ego goals, more realistic sense of self, and an increased understanding of one's roles within a social context that includes not only family, but peers, teachers, public figures, etc.

Thus, for Erikson, while childhood identifications are important, identity formation is seen as ultimtely dependent on the absorption of all prior "multiple identifications" into a new, more unified and complete configuration during adolescence. The individual progresses from a sense of self based on primitive body images to a complex sense of identity which has meaning for others and defines one's place in the world. Erikson summarizes his understanding of the mechanisms which underlie this ego growth. First, the infant relates to the world primarily through introjection and projection, which lays the basis for later identifications. Next, the child engages in "successive and tentative identifications" which provide both a sense of continuity with the past and expectations or anticipations of what one may be like or become in the future. During this period, the increased capacities of the ego enable the child to refine and synthesize identifications, combining and condensing "good" and "bad" images of objects. Finally, with adolescence, the individual discards those aspects of identity which seem divergent or incompatible and

consolidates and maintains those which express an inner sense of coherence and unity. The entire process occurs primarily on an unconscious level, although, of course, the individual can be conscious of the experienced sense of identity or, in pathology, of disturbances in identity feelings.

Although Erikson includes the development of the superego as a structural system and component of the sense of identity, he does not appear to attribute to it the kind of central organizing principle ascribed to the ego in identity formation. His concept of ego identity has been criticized by Jacobson as being both too broad and too narrow. On the one hand, she feels he does not adequately distinguish between the objective development of the individual's identity and the subjective experience of identity. On the other, she objects to his restricting the development of identity to ego processes alone. While agreeing that the synthetic functions of the ego are fundamental to identity formation, she believes that the "processes of organization are operative in all structure formations . . . including the superego," and further, " . . . identity formation [is] a process that builds up the ability to preserve the whole psychic organization--despite its growing structuralization, differentiation, and complexity--as a highly individualized but coherent entity which has direction and continuity at any stage of human development" (1964, p. 27). For Jacobson, the earliest identifications have profound ramifications for later development. Erikson adds the impact of adolescence as fostering major changes in the pattern and significance of these early identifications.

Lichtenstein (1961) also argues against referring the establishment and maintenance of identity solely to ego functions. Writing within a psychoanalytic perspective, he frames the question of identity development

somewhat differently from the above theorists. Lichtenstein postulates an "identity principle" that "has priority over any other principle determining human behavior, not only the reality principle but also the pleasure principle" (p. 189). This identity principle is neither a drive, nor an ego function, but a "biological organizational principle" which determines individual development and is supra-ordinate to any other biological or psychological need--including physical survival. Lichtenstein's thesis is based on his critique of the Cartesian mode of thinking about subject and object as distinct and juxtaposed, characteristic of the psychoanalytic approach to the problem. This necessitates an explanatory concept, such as identification, to bridge the gap between subject and object, to understanding their interrelationships. However, although Lichtenstein believes that identification plays a role in personality development, he does not perceive it as the general method by which individuation takes place. Rather, instead of the "subject-object juxtaposition" which develops as the infant <u>emerges from</u> symbiosis and which forms the basis for individual identity according to Mahler and Jacobson, Lichtenstein conceives of the source of identity as contained <u>within</u> the earliest symbiotic relation prior to individuation. In the symbiotic condition, he argues, wherein the infant is both one with the mother and related to the mother as a part is to a whole, the emergence of identity occurs. He draws analogies between ethological concepts and human behavior. The "mother-Umwelt" surrounds the infant, and the infant is, simultaneously, "an organ within this totality" (p. 202). Under these circumstances, the mother "imprints" an "identity theme": The infant learns to respond to the mother's particular needs, becoming an "instrument" of her needs in the process. Thus, the

mother's behavior and unconscious attitudes in relation to the infant call forth selected behaviors from the infant, out of all potential responses, forming the nucleus of the infant's identity pattern. These experiences are the prototype of all later relationships: The individual defines identity in terms of others, thus demonstrating the "fundamental symbiotic way" of human existence (p. 203).

Lichtenstein believes that nonprocreative sexuality is central to this process. The "primitive sensory interchanges" which occur between infant and mother establish the "basic outlines for behavioral and existential identity." Gradually, nonsexual functions contribute to the process, including the development of ego interests based on identifications with others. But sexuality and the identity principle continue to play the predominant determining role. Although his emphasis on sexuality (in the broad sense) is clearly basic to the infant's early experience and compatible with Freud's original notions, Lichtenstein's thesis, as Jacobson points out, seems to overlook the role of aggression and independent striving which also characterize development. In addition, while the intense unconscious communications between mother and infant during symbiosis--expressed largely through intimate physical exchanges--are crucial to the infant's development, the process of separation from this state and of progressive individuation seem equally significant to identity formation. Both phases of existence provide the individual with experiences essential to self-definition. It would also seem that identificatory processes become more important as individuation takes place, as subject and object become <u>experienced</u> as separate.

It should be noted that in psychoanalytic theory, the concept of identification always implies internalization. The distinctions between imitation, introjection, and identification are frequently understood in terms of the degree to which an object is "internalized" or integrated into psychic structures. For example, Meissner (1971) believes that imitation is related to internalization but is itself not a form of internalization: Imitation "remains in the arena of interaction between psyche and external world" (p. 283). Imitations enable the child to learn ways of being like an adult (particular skills and behaviors) and prepare the basis for later identifications. However, according to Meissner (1972) and Sandler and Rosenblatt (1962), imitations themselves do not lead to enduring changes in self-representations or ego structure. They may "generate" or "induce" identifications which do result in such changes. Similarly, Gaddini (1969) sees imitations as distinct from, but related to, identifications: Imitations are "an essential element of the structure of identification" which serve "the aims of adaptation and the reality principle" (p. 484). Gaddini argues that the oral incorporative fantasies to possess or be like the object which underlie imitations are the precursors of early identifications. They are basic to the initial internal regulations and adaptive capacities of the emerging ego. However, they do not constitute the central mechanism in this process as Piaget believes.

The Role of the Primary Caretaker

The importance and necessity of the primary caretaker in the development of the child is stressed by most psychological theorists.

Whether they refer to the biological mother, the mother-substitute, or the nurturing-figure, to indicate the significant person--male or female --who performs the "mothering" or "parenting" functions, writers generally agree that the role of the primary caretaker is central to the unfolding of the infant's personality. The quality and intensity of the relationship between caretaker and infant are assumed to foster particular patterns of interaction which facilitate or hinder the process of individuation and identity formation. For the infant to survive biologically and grow emotionally and psychologically, certain basic prerequisites must be available from birth on: the gratification of fundamental physiological needs and an overall empathic responsivity to the infant as a psychological being. This constitutes what Hartmann (1958) refers to as the "average expectable environment" or what Winnicott (1953) means by the concept of the "good enough mother": the context which the primary caretaker provides within which healthy development can take place. The reliability and consistency of the parenting the infant receives is presumed to have far-reaching consequences on the individual's development of a sense of inner stability and selfhood and of trust in others. The involved, sensitive parent presents and represents the world to the growing infant. In the absence of such care, cognitive and affective development are thwarted, and in extreme instances anaclitic depression occurs (Spitz, 1965).

Given the crucial significance of the primary caretaker in the infant's life, the question arises as to how, or in what way, does this important person come to influence the child's behavior and character. How does the emotional tie between the infant and caretaker lead to

psychic structuring and identity formation? More specifically, is the primary caretaker a structuring factor or a contributing factor to the infant's development? That is, is s/he directly responsible for the constitution of the child's identity, or does s/he help shape, rather than causally determine, the child's psychological structures? This distinction is not clear cut in the literature: The caretaker plays a significant role, but opinion varies as to what that role is. There is a general range of emphasis, with some overlap. Thus, for example, while Freud and Piaget, despite very different perspectives, believe that the primary caretaker contributes to the process of identity formation, they argue that ultimately it is the organizing principles within the child which actively structure the psyche. By contrast, Winnicott argues that the primary caretaker (usually the mother) is the organizer of the child's behavior and therefore structures the child's personality. Others, such as Mahler and Spitz, hold a position between these two poles of thought.

It should be clear that the regular, sustained contact with a stable nurturing figure is essential to the development of the object concept in both its cognitive and affective aspects. Since the infant is exposed from birth to such a multiplicity of sensations and experiences which must be assimilated and organized into meaningful, manageable wholes, it seems evident that this task will be facilitated by the consistency of the care provided and by the familiarity of the caretaker. The physical attributes of the caretaker--features, voice, touch, smell, taste, as well as the particular ways that the person interacts with the infant--all serve this end. These characteristics become associated with repeated experiences of pleasure and unpleasure and in this sense they are

cues or "organizers" which help structure the infant's experience into coherent, comprehensible patterns. Simultaneously, these varied aspects of the significant other become integrated and organized into a whole image which acquires constancy and stability for the infant. The infant gradually learns to anticipate, initiate, and prolong gratifying contact with the caretaker and to trust the reliability and continuity of the relationship. As has been noted, the frustrations and gratifications inherent in this relationship foster the infant's sense of inner and outer reality and of separateness as a self distinct from others. The primary caretaker serves as a model for the infant to imitate and identify with. In psychoanalytic terms, the stronger the affective tie, the greater the motivation for "being like" the other. Gradually, the child learns to take on the care-giving functions of the other, to find increasingly appropriate and effective ways of satisfying needs without the constant direct ministrations of the caretaker. Ego-development is thus enhanced by both physical maturation, competence and mastery, and by the infant's earliest, ongoing object-relations. The child's capacity for empathy and for self-esteem and object-love is dependent on the empathic, loving care of the nurturer.

As has been indicated, Freud (1921) views the mother-infant relationship as the first social unit, the basis for all other object relations. The mother, or caretaker, is essential to the infant's biological and psychological well-being. Through this early relationship, the infant moves from anaclitic dependence to autonomous ego-functioning, including the ability to form new attachments to others. While Freud sees the emotional tie of mother and infant as vital to this process, he does not

believe that the mother directly shapes the infant's ego. Rather, he focuses on the infant's own internal processes, on intrapsychic conflicts, which lead to the structuring of a unique personality. In his view, the caretaker helps the infant organize experience by facilitating or interfering with the expression of instincts through a variety of repeated interactions associated with pleasure or unpleasure (anxiety, tension); it is the way the infant perceives and internalizes these experiences that determines the structuring of the infant's reality and ego-integration.

According to Freud (1921, 1923), one of the caretaker's primary contributions to ego and superego development is to serve as an object of identification. Under the impact of the drives, the infant is compelled to recognize the environment and external sources of satisfaction and frustration. The wish to control these aspects of reality leads to changes in behavior (e.g. communication) aimed at eliciting the appropriate responses from the caretaker, and also results in the gradual selection of, and identification with, desired attributes of the caretaker. Thus, the caretaker becomes a model for the infant's developing ego; both the gratifying and frustrating aspects are internalized, providing the infant with an increased capacity for auto-regulation and equilibriation. The continued empathic relation with the caretaker strengthens these emerging ego-functions and enhances the infant's sense of mastery and autonomy as a separate, but object-related, being.

Freud repeatedly stresses the role of instincts and primary process in this development. How the other is experienced and what the infant unconsciously chooses to identify with is not solely a result of the

caretaker's actual behavior. Constitutional factors, including the intensity of the infant's drives and the tolerance for anxiety as well as the level of reality-testing, color and distort the infant's perceptions. At different psychosexual stages, what is meaningful to the child differs, as do the caretaker's behaviors and attitudes. The child strives to get needs met in socially acceptable ways, shaping instinctual demands to the demands of reality, consolidating ego-functions and integrating psychic structures. The caretaker's attentions foster or disrupt this process; similarly, the child's own drives may be disruptive. For example, repeated frustration of a need by the caretaker may increase the child's aggression to a point which can not yet be tolerated by the as yet immature ego. Such intense impulses, in addition to fantasied fears of destroying the object, may threaten to overwhelm the child and have a disorganizing effect on the ego. By contrast, moderate frustrations in conjunction with the loving support of the caretaker enable the child to contain and channel impulses, reinforcing psychic functioning and a secure sense of self.

Freud (1920) describes another ego-structuring aspect of the child's behavior in his discussion of the repetition compulsion. Here he emphasizes how the child's actions, in play or fantasy, serve to master experiences in which the child originally played a passive role. He offers the example of the little boy who plays at throwing away and retrieving an object as a means of gaining control over a frustrating and anxiety-arousing situation--that of his mother leaving him (if only for inevitable, temporary separations). Freud suggests that by engaging in this behavior, the boy converts a passive experience into an active one; he overcomes

feelings of helplessness and anxiety by controlling the "going away," as well as finding a safe outlet for the expression of his anger at the mother for leaving--he gets revenge by flinging her away, i.e. "I don't want you, I'm sending you away myself" (p. 147). In repeating experiences in this way, which allows the child to take the active part--"to work over in psychic life"--defenses are strengthened and instinctual needs gratified. The child makes a further adaptation to reality and maintains positive contact with the object (mother). In becoming "the actor" and in imitating and ultimately identifying with a wide variety of the caretaker's behaviors, the child gradually takes on functions which, at first, only the caretaker could perform. These become a part of the child's psychic structure, which in turn influences the direction of further personality growth. In the best circumstances, the affective tie to the caretaker encourages the child to take actions on his/her own behalf, leading to continued advances in identity formation.

Piaget, like Freud, emphasizes the child's active role in the structuring of personality. However, while Piaget (1969) assumes that affect is the motive force of all behavior, his focus is on cognition. He is not interested in unconscious dynamics, but in the perception and construction of objective reality. The child's tendency toward the organization of experience and adaptation to reality lead to actions which result in the development of internal cognitive structures; affects give rise to actions but do not create new psychic structures or alter already existing ones. According to Piaget, the affective tie between caretaker and child is important in terms of the child's developing social life, but not as a determining structural factor (Voyat, 1980).

The environment provides the materials from which the child builds an understanding of the properties and principles governing reality; the construction of the self and the external world, and the relationship between them, occurs through the process of assimilation and accommodation.

The caretaker, typically the mother, is one of the many objects to be apprehended. Piaget acknowledges that the mother holds unusual interest for the child because of her intrinsically complex and varied nature. As Moskowitz (1978) points out, people are less easy to assimilate cognitively: They "resist" assimilation by being different at different times. They are, therefore, explored further. The interactions between mother and child are highly stimulating to the child's development. Their relationship offers a multiplicity of experiences which the child must organize and integrate into meaningful categories and structures. The caretaker is viewed as a particularly challenging object to relate to--to act upon, react to, imitate. It is these behaviors and the knowledge acquired from them, not the emotional quality of these interactions, which modify psychic structures.

While Freud believes that the child's instinctual and emotional needs determine the perception of others and their internal representation, Piaget argues that these processes depend on the child's cognitive level. Whatever the emotional rapport between mother and child, structural development takes place independently according to a logical and necessary sequence. For example, the establishment of the mother as a permanent object or of the capacity to recognize different points of view is a function of repeated practical experiences and interactions with material reality (1954, 1969). These are cognitive achievements

which Piaget believes will take place no matter what the feeling tone is between mother and child. Nevertheless, since Piaget assumes that affect and cognition are functionally interrelated, progress in one sphere may parallel that in the other. Thus, "affective decentering is a correlative of cognitive decentering, not because one dominates the other, but because both occur as a result of a single integrated process" (1969, p. 26). This process depends on an objective reality which does not conform to the child's egocentrism, that is, it cannot be simply assimilated. The processes underlying the formation of object relations are the same as those underlying cognitive development: One does not cause the other. A positive attachment to the caretaker may provide the child with more opportunities for exploration and mastery but does not change the character of the psychic structures.

It would follow, conversely, that disturbances in the caretaker-child relationship, while affecting emotional development, would not alter cognitive structures. Anxiety, or any other intense affect, might interfere with the child's activity or disrupt thoughts, but would not impinge upon the underlying structures, according to Piaget. However, recent research attempts to integrate Piagetian and psychoanalytic theory suggest otherwise. As noted above (Chapter I, p. 34), Voyat (1980) discerned a structural relationship between cognition and affect in schizophrenic children. These children manifest a failure to achieve structural integration and an internally consistent, systematic way of approaching reality. Thus, "the simultaneous presence of various levels of adaptation and inadaptation in these children" points to the impact of intense affeet on cognitive structuration (Voyat, p. 110). (In

addition, Voyat speculates that Piaget's tendency to overlook the determining role of affect in such instances is a function of the very same phenomenon: i.e., the quality and strenghth of his affective relationship to his mother--as indicated in his autobiography, 1968.) Similarly, Bettleheim (1967), in his studies of infantile autism, while noting parallels between his findings and Piaget's theory of intellectual development, also observes significant discrepancies which contradict the notion of an invariant sequence of cognitive stages. Thus, a child is seen to manifest different levels of cognitive functioning in different areas, a phenomenon suggestive of the influence of affectivity. As we shall see, Bettleheim strongly believes in the centrality of the mother-child relationship in both cognitive and emotional development.

In contrast to Freud and Piaget, Winnicott is representative of those theorists who emphasize the role of the caretaker in the structuring of the psyche. According to Winnicott, at the earliest stage of development, "the mother is part of the child," and there is no meaning in discussing the infant except in relation to the mother's personality and functioning (1962, 1965). (By "mother," Winnicott states that he is referring to the primary maternal or parenting figure.) At birth, infant and mother form a unit within which the infant is in a state of "absolute dependence" on the mother for biological and psychological survival. The mother's qualities and behaviors directly determine the infant's development, supporting or thwarting ego-growth. The mother provides the emotional environment which promotes the infant's transition from a state of merger to existence as a separate, autonomous individual.

Winnicott stresses that it is the mother's capacity to meet the changing needs of the infant that allows this process to take place. The "good enough mother" presents "optimal symbiotic gratification at the phase-specific time" while being "alert to the next phase when the child, closer to acquisition of identity, needs a mother who gives up her symbiotic tie to him for the sake of furthering his development" (Blank, 1974, p. 110). The mother initially offers an ego-supportive "holding" environment, and must then be sensitive to the child's readiness and need to "let go" to become an independent being.

Winnicott, strongly influenced by Melanie Klein, believes that the mothering-person performs these functions based on projective identifications and empathy with the infant. During this early, pre-objectal phase, the caretaker must intuit and assess the infant's needs and respond appropriately. Instinctual demands and frustrations are disruptive to the infant's immature ego and sense of well-being: Unable to master id-demands (recognizing neither their source nor the objects of satisfaction), the infant may be threatened by overwhelming "annihilating" anxiety. The primary caretaker protects the infant from such traumatic experiences by empathic attentions. Winnicott emphasizes that this "adaptive capacity" of the mothering person is not solely a matter of gratification (or appropriate frustration) of impulses. Rather, it is the quality of the response and its anxiety-reducing aspects which are crucial to the strengthening of the child's ego-functions. He points out, for example, that in the context of gratifying an infant's need, a parent may, in fact, be increasing the child's anxiety and interfering with psychic integration. Thus, oral satisfaction through feeding

may be experienced by the infant as a seduction, a smothering, or an intrusion tinged with aggression and frustration, depending on the attitude and behavior of the parent. The quality of the care is therefore the determining factor.

In healthy development, the maternal ego "implements" and "reinforces" the infant's ego-organization and fosters a sense of mastery and reliability. The infant gradually "introjects the ego-supportive mother": The care-taking aspects of the mother become a part of the individuating infant's personality structure (1958, 1965). This process is aided by the "mirroring" interactions between mother and infant which ensure the continuity of affective contact and enhance the infant's self-reflective capacities through identifications with the observing parent. The parent's reactions influence the infant's sense of what is "me" and what is "not me." Positive accepting responses affirm the infant's self-expression and healthy development. Conversely, failures in "holding" and "handling," in both physical and psychic senses, result in faulty ego-formation, involving distortions in the experience of self and disturbances in relatedness to others.

In Winnicott's view (1962), ego development is characterized by several main trends: integration, personalization and object-relating. By integration, Winnicott refers to the infant's progression toward establishing a "unit of self," a structured organization of bodily and emotional experiences that has personal meaning and continuity. Personalization appears to be an aspect of this process involving the linking of psyche and soma, whereby ego and body and body functions become aligned. Object-relating, of course, means the infant's capacity to

interact with others on the basis of a separate sense of self and the recognition of the objective existence of others. Implicit in all these developmental trends is the emergence of the infant from absolute dependence to autonomous functioning and from the dominance of the pleasure-principle and omnipotent fantasies to increased reality-testing, secondary process, and ego-relatedness. It is the task of the "facilitating environment"--parental care--in relation to the "inherited potential" of the infant, to help the infant move toward individual identity and external reality. Winnicott emphasizes, therefore, the importance of the caretaker's recognition of the infant's growth-striving tendencies for selfhood and the appropriate and timely interventions which structure this process. (Winnicott draws analogies between these phenomena and aspects of the analytic transference.) In particular, Winnicott highlights the modifications in the mothering-person's behavior from empathic understanding of and responses to the infant's needs, to understanding based on the child's active indication or signaling of a need. Instead of continuing to meet the infant's needs in a "magical" way, the caretaker enhances the child's power to communicate and to gain a means of control of needs and satisfactions. Thus, the child develops a sense of competence and self-reliance, greater social relatedness and adaptation to reality, while helplessness and regression are discouraged.

In discussing some of the pathological consequences of inadequate caretaking--ranging from infantile schizophrenia to schizoid trends in the adult--Winnicott (1960) reinforces his argument that the primary caretaker serves a central, determining role in the structuring of personality. In the most extreme cases, he believes that the core of

personality, the "true self," may become split off and completely hidden by a "false self"--a defensive attempt by the child to construct an identity in response to defective parenting. By definition, this "self" lacks the integration and reality-basis of that acquired by a child who has the benefits of "good enough mothering." The false self is subject to fragmentation and disintegration under stress, whereas a healthy person with a strong ego and a strong sense of self can give him/herself the kind of care and support once provided by another.

While Winnicott indicates that the maturing child must become increasingly active in relation to others and in striving toward autonomy, he seems to view early infancy as a state of general passivity. At the earliest stages, the infant's participation consists primarily of expressions of distress and acceptance of comfort. It is the primary caretaker's responsibility to adapt to these needs, while the infant receives care and is only compelled to "react" when something goes wrong. In the best of circumstances, the caretaker meets the infant's omnipotent fantasies which gradually become tempered and more realistic. Encouraged by the caretaker, the infant attempts to enter the world, discovers actions have effects, eliciting responses from others and fostering a sense of inner control and mastery. When things go badly, the infant's behavior is centered on reacting to stress and self-protection, rather than reaching out into the world. Although in either situation the infant usually becomes more of an active participant, initially, according to Winnicott, it is the caretaker who directs and determines these developmental outcomes.

Like Winnicott, Bowlby also asserts that the emotional component of the caretaker-infant relationship is paramount in determining the infant's personality structure. His research on maternal deprivation (1951) and his exhaustive study of human attachment (1969) explore the nature of the infant's tie to the mother, or mother-substitute, and the ways in which it influences the infant's psychic and interpersonal development. Bowlby draws on ethology and learning theory, as well as psychoanalytic and development approaches, to support his arguments: in particular, that the affective tie of infant and caretaker can be viewed as developing independently from physiological need-satisfaction and that it provides the basis for ego-growth and object-relatedness. The infant's capacity to adapt to its environment and to be effective in modifying it is highly dependent on the responsiveness and emotional investment of the primary caretaker. While Bowlby does not overlook the infant's participation in initiating contact with others and influencing the form these interactions take, he sees the mothering-person as principally responsible for structuring the infant's experience, and consequently, for determining psychic development. The mother is the "psychic organizer" whose behaviors have a structure-building effect especially crucial to the infant during the first two years of life (1951, p. 53). Bowlby's point of view includes the concept of "critical" or "sensitive" periods during which optimal development of certain behaviors--such as attachment--can occur(1969, p. 223).

Bowlby and his colleague Ainsworth define maternal deprivation as an "insufficiency of interaction" between mother and child (1951, 1962). Deprivation refers to the quality of the care the infant receives, not

necessarily to actual physical separation from the caretaker, though these may occur together. During the earliest phases of life, the infant relies totally on this care for biological and psychic survival. According to Bowlby, the mother "fulfills the function of (the infant's) ego and superego. . . . She is his ego and superego" (1951, p. 55). She performs the necessary tasks by providing an "environment of adaptedness": orienting the infant in time and space, regulating drives, gratifying needs, selecting and organizing experience, at a time when the infant is incapable of mastering these functions. Within this relationship, the infant can gradually develop these functions, identify with the mother and internalize the interactions with her. It becomes apparent that disturbances in this relationship, in the form of inadequate caretaking and disruptive or distorted interactions, will interfere with psychic development. Maternal deprivation causes faulty ego formation (e.g. poor impulse control), disturbances in the development of the self and in relatedness to others, in intellectual and affective functioning in general. The degree of pathology may be traceable to the nature and severity of the deprivation (e.g. the actual loss of the parent, vs. destructive interactions), the phase of development and the level of attachment. Conversely, "sufficiency" of care--warm, empathic, continuous--will be ego-enhancing.

It is the affective tie between the infant and caretaker that allows these developments to occur. Bowlby emphasizes the distinction between the infant's dependence on another for physiological-need-satisfactions and attachment to another for the gratification of emotional and social needs (1969). He differs from the traditional

psychoanalytic view that love is a secondary drive arising from initial biological dependence on the caretaker (anaclitic love). Instead, he argues that attachment behavior occurs as a separate development during the infant's first year. His observations are based on studies of both human and animal behavior. For example, he refers to Harlow's research --with monkeys and surrogate mothers--which differentiates contact-comfort from need-satisfaction (Harlow & Zimmermann, 1959; Harlow, 1961). Bowlby draws parallels between the clinging behaviors typical of baby animals and those of human infants. He asserts that attachment behavior, in evolutionary terms, serves species survival by ensuring the maintenance of proximity to the caretaker as protection from predators. In the individual human infant, these behaviors initiate or continue contact with the caretaker, providing pleasurable (ideally) interactions and closeness. Attachment refers to the affective quality of the relationship while attachment behaviors--e.g. crying, smiling, sucking, babbling, or actively seeking the parent--serve to maintain, and reflect the existence of, the relationship. Attachment thus ensures both survival and social needs; it fulfills the infant's need for the emotional engagement essential for the development of all ego-functions and interpersonal relatedness.

It is clear, from Bowlby's perspective, why infants may become attached to those other than the primary caretaker; what counts is the responsiveness and intensity of the interactions with the person that leads the formation of the attachment and determines the degree of influence that person has on the child. Usually, within the second half of the first year, the infant demonstrates a preference for a particular

figure; that attachment tends to persist despite separation. When the preferred figure is the primary caretaker, dependency and attachment dove-tail. In normal development, as the child matures, dependency diminishes, though the attachment, the affective tie, may remain strong. Bowlby assumes that it is only through this earliest relationship that the infant can emerge as a psychological and social being.

Bettleheim (1967) in his discussion of early infancy agrees with Winnicott that at first the primary caretaker must do most of the adapting in relation to the infant. By contrast, however, Bettleheim believes that despite the infant's dependency, the infant is very active from birth on and adapts from the beginning. The caretaker is not solely responsible for structuring the relationship. Instead, Bettleheim, like Mahler and Spitz, points out, caretaker and infant both contribute to this process. They differ in the nature of their participation: The infant "adapts only for his own ends . . . without any regard for the mother's needs" while the mother "adapts to the infant, and ideally her adaptation will end in the satisfaction of his and her needs" (1967, p. 27). Only gradually does the infant begin to adapt to the mother, as self and object are beginning to be differentiated and established. Thus, while Bettleheim stresses the importance of the quality of the care that the infant receives and the centrality of the primary caretaker in influencing development, in his view the infant plays a significantly active role in engaging the other and shaping the direction of their interactions. The primary caretaker contributes to, but does not determine, the child's personality structure. "Mutuality" is the distinguishing characteristic of their relationship.

Bettleheim's understanding of the impact of caretaker and infant on each other is based on his extensive observations of children, particularly autistic children. Through a close analysis of the interactions between these children and their parents, Bettleheim notes the failures in understanding and relatedness that result in disturbances in the development of selfhood. Like Winnicott and Bowlby, Bettleheim emphasizes that need-satisfaction alone is insufficient in facilitating the growth of the infant's ego-functions and evolution as a distinct person. What is crucial is the emotional and cognitive experience accompanying a particular gratification, the affective tone and meaning of a shared interaction between parent and child. What counts is not nursing and eliminating, per se, but the quality of these experiences which will encourage or inhibit the child in seeking further contact with the world. The caretaker provides the context within which the infant's pleasure and trust in self and others is reinforced, and the belief in the efficacy of his/her own actions is enhanced. This fosters the infant's move from the realm of fantasy to goal-directed, meaningful involvement with external reality--other people and objects, and an increased awareness of self--both of which are distinctly lacking in autistic children.

The caretaker's responses to the infant's efforts at communication and mastery are decisive in supporting the tendency toward growth and relatedness. "Manageable frustration," as well as gratification, is structure-building: As Bettleheim indicates, tolerable-inevitable frustrations help the infant learn to recognize external reality and find new ways of getting needs met. By contrast, in the case of the autistic infant, a severe imbalance between gratification and frustration has

occurred: The infant's actions and being have been met with indifference and insensitivity to such a marked degree that the infant begins to withdraw from contact with the world. Failing to make an impact on the environment, the infant experiences increased helplessness and isolation and retreats into the "autistic position"--into fantasy and the apparent safety of the "non-development of self" (1967). The autistic infant turns from people to inanimate objects which are more predictable and controllable.

Bettleheim points out that the parents' failures in caretaking are not intentional, but rather may be due to their own problems. Thus, they misread the infant's states and needs and react inappropriately to cues because of their own insecurities. For example, unable to soothe a distressed infant, they may interpret this as rejection, become more anxious and ambivalent in their handling of the infant, and in turn induce avoidance or withdrawal by the infant. In addition, while Bettleheim argues that autism is in no way innate, he does not overlook the infant's contributions to this process: He points to possible constitutional factors such as the newborn's oversensitivity and poor "stimulus barrier" as well as to the infant's very early reactions to the caretaker. Nevertheless, whatever the caretaker's intentions, the effect may be traumatic since these experiences are occurring prior to the establishment of a stable sense of self--i.e., within the first 18 months of life. The infant remains in a regressed, undifferentiated state. Like Winnicott's "false self," infantile autism serves a defensive function, protecting the infant from further assaults on his/her being. At the moment in normal development during which the infant's emerging selfhood would

begin to flower, it is interrupted and will be called forth only if someone can "create the conditions, or otherwise be the catalysts" that the infant required in the first place (1967, p. 17).

From Bettleheim's perspective, then, the caretaker's behavior and attitudes are a precipitating factor in shaping the child's experience. They do not, however, directly determine the child's activities and psychic development. Instead, he believes that autism is the infant's "autonomous way of reacting to his total life experience, including the mother," in the same way that a healthy child acts upon, and reacts to, an alternative set of experiences which foster identity development (p. 408). His outlook emphasizes that despite the failure to individuate, the child is not simply an extension of the parent or a passive object to be molded. Even at the earliest stages the infant's actions are central to relationships with others. They help the child come to recognize and believe in an external world and an independent self. In this way, Bettleheim draws parallels between his formulations and Piaget's.

Continuing within the psychoanalytic developmental framework, Spitz and Mahler hold a position between that of early Freudian theory and its focus on intrapsychic phenomena, and a perspective like Winnicott's, with the emphasis on the external factors in development. Both Spitz and Mahler place the interaction between the infant and caretaker in the center of their theories. While the caretaker is absolutely essential to the infant's survival and emotional health, the infant's constitutional givens and tendencies toward organization and growth also contribute to psychic structuring. The affective tie between mother and infant is crucial to this process, facilitating both biological maturation

and ego development. The actual structuring of personality, however, is seen as an internal task of the infant to achieve increased levels of psychic integration and stability. Since Mahler has already been discussed at some length, the focus here will be on Spitz; both authors, however, are in general agreement as to the role of instincts, affect, and early object relations in the shaping of the child's identity.

Spitz assumes that at birth the infant is in a state of nondifferentiation and would remain so if not for the "quickening" effect of the mother (1965, p. 95). The mother's behaviors toward the infant call forth the infant's innate capacities to respond and relate. Spitz believes that the infant and mother must be able to engage in a "reciprocal relation" (what Bettleheim refers to as mutuality), each acting and reacting to each other in a kind of circular exchange or "dyadic Dialogue" to ensure the infant's involvement with the world so necessary to development. This relationship gradually progresses from a primarily biological bond to a psychological and social one and is the precursor of all object relations. At first the mother serves as the infant's auxiliary ego, mediating all experience, orienting the infant, regulating gratification and frustration. The infant's perceptions and actions are, in turn, affected by internal needs and affective states, including anxiety. The mother may exacerbate or help diminish the intensity of these drives and feelings, hampering or assisting the infant's ability to control and direct impulses. Similarly, she may discourage or stimulate the infant's moves toward autonomous functioning and relatedness. Thus, the quality of caretaking has profound effects on the infant's differentiation of a self and reaching out toward others.

Spitz arrived at his conclusions based on his extensive observations of infants in hospitals and institutions (1945, 1946, 1965). He inferred that emotional deprivation and the absence of adequate stimulation were resonsible for the intellectual and emotional retardation these infants exhibited. Lacking affective contact and cognitive stimulation, the infants failed to interact with the world, became listless and depressed, and in extreme cases, died. Conversely, Spitz later reported that emotional overstimulation or "overload" would also have adverse results on infants, causing them to withdraw or display other forms of disturbed behavior (1964). In both situations, Spitz points out, the "wrong" kind of caretaking has been provided resulting in various degrees of trauma and psychic damage.

Based on these findings, Spitz suggests that in normal development caretaker and infant establish a comfortable, gratifying rapport conducive to emotional and cognitive growth. The infant is enabled to engage in the necessary steps toward organizing and developing ego-functions. Within this first object relation, the infant moves through a sequence of successive stages or levels of psychic organization, each a more complex reorganization of the previous level. New aspects of personality emerge and are coordinated and integrated with existing structures, resulting in more differentiated levels of development and more coherent ego, and ultimately superego, development. Spitz sees this process as governed by what he refers to as the "organizers" of the psyche (1965). These are promoted by interaction with the caretaker but the organizing principle is in the child's own social behavior. Psychic organizers constitute points in development when major internal restructuration takes

place. Each of these periods is signified by an "indicator," the external sign that a new level of integration has been attained by the infant (Blanck, 1974). Spitz defines three such events which occur during the first 18 months. The first, the smiling response, at about 2-3 months, indicates the infant's emerging recognition of the external world, the organization of perception, and the beginnings of ego development. Next, the appearance of stranger-anxiety at about 8 months points to the establishment of specific libidinal object relations, in particular, the attachment to the caretaker and the concommitant experience of separation anxiety. Increased imitation, leading to identifications, takes place, along with fusion of drives and further coordination of psychic structures. The third level of ego organization is evident when the infant begins to use the word "no" at about 15-18 months. Spitz believes that this indicates the infant's ability to identify with the parental functions of regulating and control, to cope more effectively with frustration, in addition to ushering in a new level of communication and abstraction and increased social relatedness. This phase coincides with Piaget's notion of the symbolic function which signifies the child's move from direct action to language and conceptualization. At this point in development, the infant has emerged from the caretaker-infant dyad and progressed toward increased differentiation, ego-integration, and true object relations.

The theorists reviewed all assume that development takes place as a result of the interaction of innate and environmental factors, of biological maturation and psychological and social forces. Their differences lie in which factor they emphasize and the nature of its

contribution to the emerging sense of self. Thus, the caretaker is usually understood to be an important influence on this process, but will be viewed as a determining factor as opposed to a contributing factor depending on the theoretical orientation of the particular author.

The Role of Gender

In psychoanalytic and developmental theory, gender has always assumed a central role in the development of identity. Beginning with Freud's concepts of the instinctual and anatomical determinants of gender identity, to the more contemporary emphasis on the cultural and experiential factors involved, gender differentiation has been an important focus of interest in understanding the formation of personality. While theorists differ significantly as to its origins and evolution, gender is almost universally acknowledged to be a principle organizing aspect of the self. Like the awareness of self-object differentiation and the concept of object constancy, gender appears to be essential to the establishment of a stable and coherent sense of identity. The awareness of gender seems to develop early and to remain a relatively fixed psychological attribute throughout life, despite modifications over time. According to psychoanalytic theory, gender influences the formation of psychic structures and contributes to the maintenance of a stable sense of identity in the adult. This section will explore these notions more fully.

As with concepts such as identification and identity, the term gender identity is variously defined in the literature. It is often related to, and confused with, concepts such as sexual identity, gender

role, and sexuality. I intend to use the term "gender identity" as suggested by Stoller (1964): "the sense of knowing to which sex one belongs, that is, the awareness 'I am a male' or 'I am a female' . . . [it refers] to one's self-image as regards to belonging to a specific sex" (p. 220). This definition helps distinguish gender from the concept of sexual identity which encompasses sexual behavior, preferences, and fantasies. Similarly, it is distinct from gender role, which refers to behaviors and attitudes acquired by the individual and presumed to be sex-linked--including the even more confused and charged notions of "masculine" and "feminine." While the sense of gender influences later sexual identifications, it can be viewed as initially independent from them. In addition, gender identity is differentiated from Freud's broad concept of sexuality, which includes the pleasures derived from the expression of libido throughout psychosexual development, and from the general tendency to use "gender" and "sex" interchangeably. Gender, as Stoller points out, ought to be distinguished from sexuality, just as Freud distinguishes "sexuality" from adult "genitality."

Freud, of course, stressed the constitutional, biological factors in the development of gender and the subsequent structuring of personality. In his early papers on the subject (1925, 1931) he appears to directly equate differences in autonomy with masculine or feminine behavior, and with activity and passivity. However, later his statement that "the anatomical distinction between the sexes must express itself in psychical consequences" (1933, p. 124) allows for a variety of interpretations, a more complex view rather than a simple one-to-one correspondence, leaving further room to explore the nature of this relationship.

He speculates as follows. In both men and women, psychosexual development --the "vicissitudes of libido" through the psychosexual stages--interacts with anatomy to form particular (to males or females) character traits as well as affecting the quality of psychic structures--e.g., the strength and severity of superego. Freud allows for the impact of social and cultural expectations and norms in this process; however, he attributes primarily reinforcing, rather than contributing, properties, to their influence. He concentrates on the development of sexuality, including both gender and erotic pleasure. He assumes that for men, in normal development, maleness and masculinity develop in fairly direct linear fashion: Gender and sexual preference (object choice) coincide, masculine tendencies are strengthened by environmental responses, while feminine potentials are phased out. By contrast, Freud believes that female development is more convoluted and characterized by a more complicated struggle with bisexuality.

According to Freud, the early phases of libidinal development are similar for both sexes. It is only during the oedipal phase that males and females diverge, with females taking a circuitous route to achieve adult "feminine" sexuality. Freud (1933) postulates two distinct phases of female development: a pre-oedipal masculine phase, and an oedipal (and post-oedipal) feminine phase. The first phase is characterized by aggressive, "phallic" strivings; the second by passive, narcissistic pleasures which are presumed to typify normal adult female sexuality. The girl must give up the former to attain the latter. In order to accomplish this, unlike the male, she must change both her sexual (instinctual) aim and her sexual object-choice. She must change her aim, according to

Freud, because of her anatomy; he thought, erroneously, that there are two kinds of female orgasm--clitoral and vaginal, which correspond respectively to a "penis-equivalent" and to adult female sexuality. The girl must change her erotogenic zone and replace her masculine strivings with feminine tendencies. She has to switch the object of her instinctual impulses as well: She must transfer her libidinal attachment from her mother, her first love-object, to her father. Freud explains that the motive force for these transformations is penis-envy and the castration complex which initiate the oedipal phase. The girl blames her mother for depriving her of a penis (fantasized as punishment for masturbation), directs hostility toward her, and turns to her father to provide her with a penis-substitute, a baby, thus fulfilling her sexual destiny and attaining a feminine orientation. (It should be noted here that the girl's belief that she has been castrated accounts for her weaker superego according to Freud. While ultimately she resolves her oedipal complex by identifying with her mother, she lacks the motive force--continued fear of castration--that drives the boy so forcefully to renounce his oedipal longings and maintain strong superego prohibitions.) In Freud's thesis, the sense of gender and of differentiated maleness and femaleness, while occurring in childhood, are not established until the oedipal phase has begun. Once these distinctions are made, however, they exert enormous influence on character formation. Freud, of course, throughout his work, explores the consequences which result from conflicts over sexuality and gender identity and confusion.

Greenacre (1948), continuing in Freud's tradition, sees a correlation between certain character traits or behavioral tendencies and the

anatomical distinctions between the sexes. She mentions the significant impact of social and cultural factors in reinforcing these correlations. Nevertheless, like Freud, she believes that there is a "causal dynamic relationship" involved, that gender is a constant and powerful determinant of developing behavior: ". . . insofar as the body is the greatest part of its own first environment, it seems justified to stress the influence of the reactions within and to it of the developing ego [and superego] (1948, p. 149). Thus, Greenacre (1958) stresses the development of the "body self-image" in this process and delineates the two aspects involved: an inner aspect "dependent on the intrinsic body-organizational structure" which constitutes the core of identity, and an outer aspect, dependent on "the awareness of the outer surface and form" of the body, which influences the "awareness" or "sense" of identity (p. 625). The inner structural aspect remains relatively stable and firm throughout life, while the outer aspect is subject to continual redefinement based on comparison and contrast with others.

The inner aspect involves the development of psychic structures. Greenacre believes that a child's gender significantly affects superego formation and states that males tend to have a "firmer, more condensed conscience structure" than females (1948, p. 159). Like Freud, she hypothesizes that this is largely due to the girl's assumption, on observing the boy's body and penis, that she has been castrated, while the boy lives in continual fear (not necessarily conscious) of this possiblity happening to him and must guard strongly against it. Greenacre emphasizes the role of the child's awareness of his/her genitals in this structuring process. She attributes, in part, the apparently more

diffuse nature of the female superego to the girl's more diffuse and vague awareness of her genitals. While arguing that females experience genital (clitoral and vaginal) sensations early in infancy, Greenacre asserts that the organization of these experiences within the total body image is always somewhat mysterious and incomplete for the girl. By contrast, she assumes that since the boy can touch and see his genital more easily and freely, he has a much clearer and direct sense of it and a more defined, intact image of his body as a whole. Accordingly, Greenacre believes that these differences in body image are reflected in the early body-ego formation as well as in the presumed gender differences in superego functioning. In addition, she states that the process of separation from the mother and the resolution of dependency conflicts is more complicated for the girl. While the boy displaces his initial attachment to his mother onto other female love objects, i.e., seeks sexual as well as emotional satisfaction from other females, the girl transfers her attachment to her father but continues to rely on her mother--another female--as "the primary food giver and body warmer" (1948, p. 153). Thus, Greenacre suggests that the girl's relation to her parents is less clear-cut and defined than the boy's. These circumstances, and the girl's ambivalent relation to her mother--balancing needs and rivalry--"may be the source of some of the girl's later tact, indirectness and lack of simple forthrightness," as well as her "fine sense of social value" and interpersonal awareness, as Greenacre sees it (1948, pp. 155, 164).

According to Greenacre, then, the sense of gender is integral to how the child experiences the world and structures a meaningful,

coherent identity. She points out that the early images of the sex organs may be distorted and fused with images of the genitals of either sex. This image will obviously vary according to the child's actual experiences and observation of others, as well as the phase of development and the dominant fantasies. However, she suggests that these multiple images eventually become subsumed within a "conventional" image for one's own sex with which the child identifies. Disturbances in the underlying image may, of course, surface in the form of symptoms expressive of gender confusion. In normal development, however, Greenacre believes that a core sense of identity has evolved by the time the child is about 2 1/2 years of age and is then followed by the development of gender differentiation. She assumes that gender identity begins to be established during the phallic-oedipal period as conceptualized by Freud (around 3 to 5 years of age).

By contrast, Mahler, also working within a psychoanalytic framework, suggests that gender identity develops somewhat earlier in infancy, as early as the second year of life. Although the sense of gender may be primitive at this point, Mahler believes that it exists in a rudimentary form during the preoedipal period. Based on her observations of infants and children, Mahler places the establishment of gender differentiation within the context of the separation-individuation process during the rapprochement phase. The task of this phase, as has been noted, is to develop a sense of object and self-constancy, an "enduring individuality" (1975, p. 223). This accomplishment takes place on "two levels of the sense of identity: (1) the awareness of being a separate and individual entity, and (2) a beginning awareness of a

gender-defined self-identity" (p. 224). Mahler asserts that the second level of awareness is attained as soon as the infant discovers and recognizes sex differences during the second year. (She suggests that infants may have a vague sense of difference prior to this but cannot yet organize their experience in any meaningful way.) Mahler has observed in the behavior of these young children "striking consolidation of constitutionally predestined gender-defined differences" (p. 224). However, she states that full integration of the "gender-determined body self-image" does not occur until the phallic-oedipal period. With the resolution of the castration complex and the formation of the superego through the identifications with the parents, gender identity is more firmly established.

Jacobson (1964) agrees with Mahler that gender differentiation occurs during the preoedipal (anal) period and fosters progress in separation and individuation. She believes that the discovery of gender identity is an essential component, along with self-object distinctions (early identity) and the consolidation of good/bad self and object images (early constancy), of the ability to distinguish between wishful (ego ideal) and realistic (ego) self-images. It constitutes an aspect of personal identity which furthers the transition from symbiosis to object relations and increased identifications with parents. Like Greenacre, Jacobson assumes that boys form a clearer sense of gender identity earlier and more easily than girls because of the visibility and accessibility of their genital organ. In addition, she argues, girls are more reluctant to accept their sexual identity because they view their genital as "damaged"--a castrated penis, rather than an intact vagina. Nevertheless,

she points out, awareness of genital differences is recognized prior to, and helps initiate, the oedipal phase for both sexes. The child's sense of gender and sexual identity soon shifts from being focussed on genital comparisons to other areas, i.e., to other parts of the body and to male and female behavioral and role differences. Thus, "the experience of one's own and others' sexual identity soon expands to the whole bodily and mental person" (1964, p. 72). While concentrating on the child's internal fantasies and processes in this development, Jacobson also highlights its interpersonal aspects in the way the child experiences these differences in relationships with others.

Although Jacobson believes gender affects superego development, she criticizes Freud's understanding of this process. First, she disputes the idea that castration anxiety is the sole motivation for the resolution of the oedipal conflict. Instead she asserts that loving, as well as aggressive, impulses provide impetus for the renunciation of oedipal strivings and identifications with the same-sexed parent. Secondly, she argues that the superego of the female is <u>different</u> from that of the male, and not defective (due to lack of adequate motivation.) The differences arise from the ways in which each sex must come to terms with the "trauma of castration shock" which results from the discovery of anatomical differences. According to Jacobson, in males, the aggressive component of the oedipal conflict is not the threat of castration by the father so much as the boy's own hostile wishes toward the father and fears of retaliation. The boy's love of his father, as well as his idealization of him, allow him to identify with him and overcome this aggression. Jacobson believes that a girl copes with "castration

shock" by denial, first, and then, by depreciation of herself and her mother, eventually turning to her father as her love-object. Narcissistic libido is shifted from the genital to the whole body. In place of the 'lost' penis, the girl constructs a "maternal ego ideal" characterized by "feminine" traits such as cleanliness, asexuality (inhibition of sexuality), and lack of aggression. Thus, Jacobson argues that the girl, like the boy, but in her own way, establishes a strong superego with high moral standards. Her thesis attempts to account for the relation between anatomical differences and gender identity, and behavioral traits presumed to be fundamentally male or female.

Erikson (1950) also sees a significant relationship between gender and specific behavioral traits. While his work stresses the "interpenetration of the biological, cultural and psychological" (1950, p. 108), he emphasizes the profound influence of anatomical sex differences on human behavior. His notion of "organ-modes" is integrated into his theory of parallel lines of psychosexual and psychosocial development. For Erikson, "experience is anchored in the ground plan of the body" (1950, p. 108); the sense of one's body, the body-schema, affects all aspects of behavior. Accordingly, Erikson believes that the differences in the morphology of sex organs serve as models for particular organ-modes, distinctive ways or patterns of interacting with the environment throughout the phases of libidinal development. In turn, these organ modes, in conjunction with social and cultural expectations, become expressive, in a more general way, of what is considered distinctly masculine or feminine. Thus, Erikson assumes that gender is a major organizing principle of experience and, consequently, of the sense of self and identity.

Erikson believes that the awareness of sex differences becomes acute at around the third year and marks the beginnings of "infant genitality." At this point, the child develops an intense interest in the genitals of both sexes and an increasingly strong attachment to the opposite-sexed parent. The behavior of both boys and girls is characterized by what Erikson refers to as the "intrusive mode": The child's activities and fantasies are colored by an aggressive, assertive quality. Active exploration, curiosity and an increase in physical and verbal capabilities predominate. As the conflicts of the oedipal phase gain intensity, however, there is a shift in the behavior of the little girl. Lacking a penis, the little girl turns to sources of female power--fantasies of having and caring for babies. This results in the gradual predominance of the "inclusive" or "inceptive" mode over the "intrusive" mode in the girl. Her anatomy and reproductive role--the "dim anticipation" (p. 91) that genitality has a procreative function--shape her experience of herself in the world and, combined with cultural expectations, mold her behavior and psyche. Similarly, the boy continues to express himself through a characteristically male orientation, his modes of being ultimately based on his physique and reinforced by the surrounding culture.

Erikson believes that such differences run throughout male and female behavior and attitudes. He argues that these sex-differentiated modalities, in addition to influencing emotional and social behavior, affect cognitive functions as well. For example, based on his observations of children's play, he asserts that the influence of the organ-modes are manifested in sex differences in the sense of space. In a study in which children made constructions out of blocks, Erikson viewed

the tendency of the boys to build towers and action scenes, and the girls to build static, enclosed or opened interiors, as evidence of the underlying, pervasive organ-mode particular to each sex. The conception of spatial configurations is seen as dependent on, and parallel to, the conception of one's body. (It should be noted that these children were between the ages of 10 and 12 years and therefore had already been subject to years of cultural norms and expectations in regard to male and female behavior. The children's behavior must be assumed to reflect these influences. Nevertheless, Erikson might suggest that socialization practices may simply call forth or reinforce already existing, or at least potential, behavioral trends or tendencies based on sexual anatomy and functions,) Thus, Erikson states that "the modalities common to either sex express something of the sense of being male or female" (1950, p. 101) and that sense is a central aspect of identity formation and experience. Erikson stresses that each sex is characterized not only by its differences from the other sex, but by a "uniqueness founded on the preformed functions of the future inseminator and the future child-bearer, in whatever system of distribution of labor and cultural style" (1950, p. 91). This unique sense of maleness or femaleness persists, in normal development, throughout life, heightened and modified by experiences such as puberty and reproduction, as well as by external factors such as learned social roles. Erikson believes that these experiences result in changes in self--including sexual--image, while the core identity, including gender, remains stable.

Discussions of gender development often tend to become focussed on the nature-nurture controversy. For the most part, the theorists

reviewed so far stress the biological and intrapsychic factors which determine sexual differentiation. They regard social and cultural influences as reinforcing apparently innate developmental trends, rather than as primary determinants in the process. Others, such as Stoller and Money, drawing on recent research in genetics and hormones, have (seemingly paradoxically) been moved to emphasize externally imposed factors, such as sex-assignment and socialization, in the establishment of gender identity and ensuing sex differences in behavior. Further, writers like Maccoby and Jacklin have concentrated on studies of these presumed sex-differences and have highlighted the realities and myths involved, noting the contribution of innate vs. learned factors where relevant.

The important issue overall, it seems, is not whether psychological and behavioral differences are determined either by nature or by environment but rather that an interaction of these factors is always present and essential to the unfolding of personality. Although theorists may vary in emphasis as to the degree and value of each factor involved, they agree that both contribute to gender development and that gender itself serves as a center around which other aspects of identity crystallize. It seems self-evident that biological and environmental factors are both necessary for the fullest understanding of the experience of gender and related concepts--including conflicts in these areas. What needs to be examined is the ways they interact to produce unique individuals.

Stoller, for example, writes from a psychoanalytic perspective but criticizes Freud's emphasis on biology as the "bedrock" of gender and sexuality. He argues that the effects of the physiological and biological systems, while "organized prenatally in a masculine or feminine direction,

are almost always . . . too gentle in humans to withstand the more powerful forces of environment" (1972, p. 283) which impinge on the infant from birth on. Psychological and social forces may act in opposition to biology and anatomy, overriding the innate factors in determining gender. Stoller bases his argument on current research such as the embryological studies which highlight the role of hormones in "masculinizing" the initially female fetus (Sherfey, 1966) or the studies of intersexed (transsexual) individuals or those with chromosomal or anatomical abnormalities (Money, 1957, 1972). These studies demonstrate the enormous influence of external factors in shaping personality in circumstances where the physiological indicators are ambiguous. Thus, an individual's sense of gender may completely contradict what his/her genetic make-up and external genitalia would suggest. In such cases, the significant factor appears to be assigned gender: The individual develops the gender identity appropriate to the sex that is ascribed at birth. Based on this designated sex, the infant is assumed to be treated differentially according to what is deemed culturally appropriate as masculine or feminine behavior. Both gender identity and sexually differentiated behavior are presumed to develop relatively independently of innate factors, in contrast to Freud's hypothesis.

In addition, these findings support the notion that gender identity occurs earlier than Freud suggests, prior, that is, to the phallic-oedipal period. Thus, Money and Ehrhardt (1972) argue that gender identity is "imprinted" during a "critical period"--between 18 months and 3 years--and is relatively complete by 5 to 6 years of age. Similarly, Stoller (1964, 1968) believes that an "unalterable sense of gender

identity" is established within the first few years of life. Although it undergoes modifications and development due to physiological and experiential influences, Stoller argues that the "core" awareness of being male or female remains constant throughout life. The "definitive signs of femininity" are present in the little girl as early as the first year, rather than originating during the oedipal phase as a result of the castration complex. According to Stoller, internal conflicts about gender, including the wish to be the opposite sex and confusion about one's "masculinity" or "femininity" may arise as a consequence of castration anxiety: Penis envy and castration fantasies occur after a primary sense of gender has already been established. They are one aspect, rather than the basis, of gender differentiation and development. Thus, both boys and girls form an early awareness of gender which then becomes elaborated upon as they progress through the psychosexual stages toward adult sexuality and which is highly responsive to cultural definitions and expectations.

Stoller's viewpoint, like that of Money and Ehrhardt, assumes that the sexes are subject to marked differences in upbringing which result in distinctive ways of being and behaving labelled as masculine or feminine. Interestingly, Maccoby and Jacklin (1974) found that much of the research on sex differences in behavior and attributes indicates that, in fact, males and females do not differ as significantly as previous investigators have suspected. Furthermore, they discovered that parents tend to treat children very similarly during the first few years of life, regardless of gender. They argue that even in cases where one parent may react to a child according to a sexual stereotype, the other parent's

behavior may counteract, or counterbalance, this effect. Nevertheless, they point out that both the sex of the child, as well as that of each of the parents, is an important determinant in these interactions. Thus, while they believe that gender plays a role in helping organize the child's experience, they refute the notion that parents directly shape the child's behavior toward sex-typed patterns. As they state, "Children do not develop androgynously . . . by age 4 [they] prefer toys and activities that are considered by the adult society to be sex-appropriate" (1974, p. 289). But the sources of these preferences are not primarily differential socialization. Instead, they believe that whatever sex differences do evolve are largely a result of the child's own cognitive growth, in conjunction with a growing awareness of gender identity, as well as imitation and modeling behaviors.

In their review of the literature, Maccoby and Jacklin (1974) noted that although parents may think that "the typical behavior of boys and girls [is] different. . . . their values concerning how the two sexes ought to behave is quite similar" (p. 343) and that "parents are trying to socialize children of both sexes toward the same major goals" (p. 344). Only in the narrowest sense of sex-typed behavior does differential shaping or reinforcement of behavior occur, i.e., in dressing the sexes differently, in generally providing them with sex-typed toys, and in discouraging them (boys in particular) from engaging in activities contrary to these expectations, e.g., reacting negatively to a boy's wearing lipstick or putting on a dress. Otherwise, it appears that parents treat children very much alike in most areas of behavior--in terms of dependency, aggression, autonomy, achievement, sexuality--at least at the very earliest ages. According to Maccoby and Jacklin, there are probably

very few biologically based behavioral differences and few that are strong enough to elicit differential responses. Indeed, Maccoby and Jacklin conclude that many commonly held beliefs about sex-differences are unfounded (at least in childhood): Girls and boys tend to be equally social, analytic, suggestible, dependent, etc. The only behavioral differences that appear to be fairly well established are as follows: Females have greater verbal ability, less visual-spatial ability, less mathematical ability and less aggression than males. However, except for aggression, the other behaviors are very similar for both boys and girls throughout childhood and only begin to differ during adolescence and adulthood. Differences in aggressive behavior, by contrast, occur earlier; by 2 or 2 1/2 years of age, boys demonstrate more aggression than girls.

While Maccoby and Jacklin demonstrate that many prevalent attitudes based on gender are misconceptions, they speculate that those psychological differences which are evident originate from a combination of factors--genetic, social (parental shaping), and the child's cognitive-imitative activities. They believe that neither the psychoanalytic theory of identification nor the social learning theory of reinforcement is sufficient by itself to explain the development of gender identity and sex-typed behavior. Rather, they suggest that aspects of each of these viewpoints, in conjunction with a developmental-cognitive orientation such as Kohlberg's (1966), offers the fullest understanding of the process and concepts involved. Thus, they argue that the child first develops an idea of what it is to be female or male, what gender s/he belongs to--based on sex assignment and observed anatomical differences, and then tries to accommodate or fit behavior to this

understanding of what is sex-appropriate. Maccoby and Jacklin refer to this process as self-socialization: The child plays an active role in shaping or organizing behavior according to his/her own conception of what is masculine or feminine. Of course, this conception depends on the child's cognitive level. It will undergo modifications over time, while the basic sense of gender remains constant. According to Kohlberg (1966), it is not until about age 6 or so that gender constancy--"the understanding that a person's sex is not changed by changing clothes or hair styles, but remains as a constant attribute of the person throughout life" (Maccoby & Jacklin, 1974, p. 290) is firmly established. This accomplishment depends on the child's ability to sort out and classify salient information about males and females, and then to "selectively imitate" or identity with sex-typed features or roles. It is important to emphasize that what the child recognizes and categorizes as particularly "male" or "female" attributes is a function of both his/her own perceptions--limited by experience and cognitive level--as well as cultural reinforcement. Maccoby and Jacklin argue that this process occurs earlier than Kohlberg would suggest: "Children as young as 3 . . . have begun to develop a rudimentary understanding of their own sex identity, even though . . . their notion about the permanence of their own sex identity is incomplete," and they begin to "self-socialize" into sex-roles on the basis of this rudimentary understanding (1974, p. 365).

The conclusions to be drawn from current research on gender and sex-differences is still limited and at times contradictory. There is great variation in the kinds of studies conducted (observational, self-reports, etc.), in what is being measured, how measurements are defined,

what age-group is being investigated, and what the context is in which a behavior or attitude is being examined. While the authors rarely found differential treatment in childhood, sex-role stereotyped behavior becomes apparent in adolescence and adulthood. Perhaps the kinds of presures exerted on children to assume certain sex-typed characteristics based on gender are more subtle and complex than current research indicates. Indeed, the results of these influences may not manifest themselves until later, for example, during puberty and early adolescence. Then, with the growing awareness of and capacity for mature sexual behavior and reproduction, the impact of earlier training may become obvious. The child may be relatively free to act without regard to gender; however, the "dim anticipation" (of which Erikson speaks) of adult functioning, the awareness of differences in sex-roles and their relative value, and the ultimate (and unconscious) expectations of adults, may already be in effect, channeling the child's behavior. In addition, with adolescence, sex-appropriate behaviors become more explicitly defined and the pressures to conform, more direct and intense. The realities of what is acceptable behavior to one's peers and in the adult world take over. Presumably, "self-socialization" and external pressures act in conjunction with one another. Nevertheless, it is equally apparent that the range of adult behavior is often wide of the mark of stereotyped concepts. The degree of psychological "need" for such stereotypes might reflect underlying insecurities in identity and in self-object boundaries--i.e., a distinctly different "other" is required to maintain the differentiation and integrity of the self. It is, however, clear that gender is essential to self-recognition and self-definition

and central to one's organization of experience and identity. Gender identity becomes the basis for experience, behaviors, attitudes and values far beyond the biological fact of being "female" or "male."

Human Figure Drawing

Psychologists use drawings as a means of assessing both affective and cognitive aspects of personality. It is generally recognized that the human figure drawing in particular reflects the individual's conscious and unconscious experience of the self. While the draw-a-person task was initially viewed primarily as a tool for evaluating intellectual functioning and establishing IQ (Goodenough, 1926), it gradually became apparent that other areas of personality are revealed which can be subjected to meaningful analysis and interpretation (Buck, 1948). Through graphic representation, feelings, thoughts, and impulses are expressed which might otherwise be inaccessible to direct observation, introspection or verbalization. Thus, drawings can be an extremely valuable diagnostic method for exploring personality and understanding an individual's self-concept.

Both psychoanalytic and developmental theorists assume that an intentional drawing represents an internal image constructed from emotional and cognitive experience. A drawing is a product of both affective-dynamic and intellectual factors, but, as with other areas of personality development, which factor is stressed in analysis, varies according to theoretical orientation. The significance of a particular feature of a drawing may be interpreted primarily in terms of its dynamic interest or may be viewed in relation to cognitive level. Both approaches are valid. Together they offer a comprehensive way of inferring

the underlying psychic functioning and structure of the individual. Some authors such as Machover (1949) focus on the projective-dynamic aspects of drawing, in contrast to Piaget (1948, 1969, 1971) and Harris (1963) who emphasize the cognitive-conceptual factors. Others, like Luquet (1927) and Di Leo (1970) have described the sequence of developmental stages observed in children's drawings. Each perspective presupposes the child's ability to form a mental image and to translate that image into a graphic representation conveying a unique and personal pattern of experience. The drawing manifests the particular way the child perceives, organizes, and interprets experience, both inner and outer reality, both the self and the object world.

It should be stressed that drawings can be used to assess both individual strengths and/or pathology (as is the case in a diagnostic work-up, usually in conjunction with other clinical observations), as well as to trace and delineate general developmental trends. Research has attempted to analyze both individual and group characteristics. Goodenough (1926) was the first to develop a scale for measuring intelligence through drawings. She instructed the individual to "make a picture of a man" and then interpreted the result in terms of the presence (and absence) of specific featuers. Buck (1948) followed with the House-Tree-Person test which concentrates on the personality projective aspects of the drawing. Machover (1949) also focused on dynamic factors. She asked her subjects to draw a "person" and, after doing so, to draw "someone of the opposite sex," since it is of interest to note which sex and age the individual selects to draw first and to relate this to overall self-concept. (One can also investigate what the child may

consider to be positive [ego syntonic or ego ideal] or negative features by comparing the figures). The less structured the task, the more the drawing will be an expression of the individual's selecting and organizing processes. Harris (1963) conducted studies with children asking them to "draw a picture of yourself," hypothesizing that this approach will reflect even more specifically the special personality features of children. Koppitz (1968) believes that it is more revealing to leave it to the child as to whom to draw. In addition, she asserts that one picture provides much of the necessary information for a comprehensive analysis of the child. She therefore instructs the child to "draw a whole person" and interprets the drawing according to two scales: one for "developmental items" related to age and mental maturity, and the other for "emotional indicators" reflecting the child's interpersonal attitudes and concerns (1968).

These studies have increasingly sought to gain an impression of the drawing as a whole. Instead of enumerating details and viewing them in isolation, they are examined in relation to each other and described in terms of the general configuration or gestalt in order to arrive at a "picture" of the total personality. This data is simultaneously interpreted in relation to the child's age, sex, race, cultural background, etc., which enhances the meaningfulness of the portrait. From such extensive, systematized research, it has been possible to relate certain graphic qualities and contents to particular constellations of personality traits and patterns, and to pinpoint and establish developmental norms--in terms of both personal psychology as well as the psychology of drawing.

Since children in general have difficulty with self-reflection and verbalization, drawing provides them with an evocative and effective means of communication and self-expression. It is a singularly productive way of tapping the inner life of a child, of eliciting feelings, wishes and fears, gauging self-esteem, cognitive functioning, perceptual-motor coordination and skills, control and direction of impulses, and determining central themes in the child's sense of identity. From a psychoanalytic perspective, Schilder (1938) has suggested that the human figure drawing represents projections of the child's own body-image, either directly or in compensatory form. As has been noted, Schilder believes that the body-image is constituted out of a variety of sensory and psychological experiences during infancy. These form the basis of the self-image or self-concept. It is this self-concept which is ultimately depicted in the child's drawing. The child's psychosexual stage and intrapsychic conflicts will find graphic expression: the child may omit, or strongly emphasize, a part of the body or feature which holds significant affective meaning at the time. The presence or absence of certain features may be deemed phase-appropriate, or may reflect underlying areas of conflict. According to Schilder, the child's attitudes toward and experience of the body will unconsciously shape and infuse the graphic representation.

Other writers have observed that in addition to facilitating self-projection, the draw-a-person task may call forth the child's identifications with others. For example, Di Leo (1970) suggests that the child usually draws an adult figure based on attributes of the parents or significant others, someone the child admires or is strongly attached to.

Hammer (1958) also notes this tendency and views it as an indication of the importance of the primary caretaker in the child's affective life and the need for a model for the child to identify with and internalize as part of the self-concept. Hammer also states that a figure drawing may portray the child's ego ideals, the way the child would like to be or become, which may include the wish to be like the parents or some fantasied ideal self. Just as the image of the self is thought to evolve from the differentiation and integration of internal self and object representations, so the figure drawing can be interpreted as comprised of these different aspects of the personality. The influence of the parents, as mediated through the child's perceptions and interactions with them, colors the child's self-image and is externalized again in the drawing. While in this way the parents are, in a sense, always a part of the child, the child is always a part of the people s/he represents pictorially. The people the child chooses to depict will always represent different aspects of the child's own identity. As Hammer states, "projective drawings tend to reveal the felt self, the ideal self, and . . . the future self" (1960, p. 267).

In assessing the projective aspects of a drawing, then, the examiner evaluates groups of signs which have been shown repeatedly to point to underlying personality dynamics. The structural and formal apsects of drawing, as well as the content, offer valuable insights into character formation. Machover believes that the former qualities--such as size, line, placement--are less variable over time than the content--clothing, feature details. She interprets this "constancy" or "stability of projection" as referring to the basic consistency of personality

structure (1949, p. 6). (She is not using the term "stable" here in the sense of "health.") This finding may be true of most adults and of children within a particular developmental phase. However, others have observed marked structural variations in children's drawings over time which indicate significant changes in the underlying psychic structures (Luquet, Di Leo). As long as internal structural growth and integration are taking place, they will be reflected in parallel developments in drawing.

In addition to the importance of structural factors, Machover stresses the functional orientation underlying her interpretation of drawings. Her research, based on work with psychiatric patients, both adults and children, was directed toward diagnostic assessment. Impressed by how strikingly and graphically basic problems seemed to be projected in drawings, she attempted to relate these graphic traits to particular "clinical types" or symptom syndromes. She noted that the exaggeration, distortion or omission of features can be understood to have functional significance. For example, she suggests that the head is the "important center of location for the self" (1949, p. 36), and the way it is portrayed may express the individual's sense of intellectual power, social dominance and acceptability, and control over impulses. Thus, a large head may be an expression of grandiosity, an "inflated ego," of intense conflicts in control of bodily impulses, of a compensatory need to overcome feelings of inadequacy, or in young children, a phase-appropriate expression of the significance of the head and face in early social, cognitive and affective development. Or, the absence of arms or hands and fingers, what Machover refers to as "contact features," may

represent disturbances in "ego development and social adaptation" (1949, p. 60): It may refer to the individual's sense of competence and effectiveness, to the ability to "make contact" with the environment--to reach out, hold on to, touch lovingly or aggressively, or to guilt feelings about autoerotic activities. Similarly, the treatment of any feature--eyes, hair, clothes, body, body parts--can be analyzed in this way (primarily in terms of dynamic motivation) and can be seen to have vital significance for the individual, expressing personal attitudes and experience.

Machover makes it clear that each feature cannot be understood separately in a "check-list" fashion as having a specific meaning. (Occasional exceptions may be observed for certain conventional social images or symbols such as a pipe, cane, etc.; but even these may carry personal, idiosyncratic meaning.) Rather, a feature derives its meaning from its relation to other parts of the drawing and the overall context. Only then can a valid statement be made about the individual. Thus, Machover states: "In the production of a drawing, there emerges out of the individual's total experiential background a unique pattern of movement and idea. Its significance for personality stems from the fact that there are involved processes of selection out of the infinite pool of experience and imagery potentially available in combination with a dynamic organization of movement and percept" (1949, p. 9). The individual brings the whole self to a drawing (including what s/he chooses to exclude): The drawing will bear the unique imprint of that personality organization.

In contrast to Machover, Harris (1963) focuses on the cognitive-conceptual aspects of drawing. Based on his own research and survey of

the literature, he concludes that there is insufficient evidence to support a valid, systematic interpretation of drawings as a diagnostic projective device. Although he recognizes that affective factors play a role in the child's graphic productions--that feeling states and self-image are reflected in the human figure drawing, he believes that these personality aspects cannot be accurately delineated and judged through drawing analysis. He asserts that only in instances in which the child consciously and directly attempts to portray the self can some general qualitative assumptions be made (e.g., sex-role identification, sense of self-worth, etc.) about personality. (It is interesting to note here an observation by Koppitz [1968, p. 79]: Perhaps Harris underestimates clinical-affective significance because he studied large numbers of drawings of "normal" public school children, while Machover might overestimate clinical significance because she did most of her research with psychotics or otherwise emotionally disturbed people. Instead, Koppitz suggests a balance of both perpectives in approaching drawings, evaluating significant signs without exaggerating their importance.) Like Goodenough, Harris stresses the use of the figure drawing as a tool for assessing intellectual maturity and level of cognitive functioning. He states that the child's drawing has form and meaning from the start and that it is dominated by conceptual, rather than perceptual or personality, factors. The child's way of representing a person is intimately related to the level of concept formation: Interactions and experiences with people give rise to concepts of them, and the complexity and sophistication of these images depends on the child's cognitive organization. This, in turn, can be measured through the child's drawing, the external

expression of an inner concept. At any given level of development, the child's concept of an object or person depends on the ability to analyze and "abstract certain elements from the total impression created by an object"--to select those characteristics which appear to the child, because of experience, to be the most essential and integral to that object--"and to reconstruct the object psychologically in terms of those elements"--*to form* a mental image (1963, p. 191). The drawing represents this image.

Harris's view is similar to Piaget's. Both authors agree with Luquet's original formulation (1927) that the child draws what is known (conceptually), not what is seen (perceptually). Piaget, of course, believes that this knowledge is the result of the child's behavior: Actions give rise to direct imitation, followed by deferred imitation, and ultimately internalized imitation, or representation in thought. As has been noted, this process constitutes the development of the symbolic or semiotic function, the evolution of the mental image. This is the basis of all the different ways the child can represent the self and the world. As Piaget points out (1969), the drawing or graphic representation is an aspect of the symbolic function which falls between symbolic play and the "true," i.e., evocative, mental image. That is, like symbolic play, the drawing involves some transformation of reality by assimilation to the needs, wishes, and feelings of the child; like the mental image, it attempts to imitate, or accommodate to, reality. In fact, Piaget stresses that it is closer to "imitative accommodation" because the child strives to understand and approximate objective reality (1969). (Piaget' suggests, however, that initially drawing seems like "pure play" as in the

"aimless scribble" of the first drawings of a 2 to 2 1/2 year-old. But, as soon as the child recognizes that the scribble looks like something, an attempt is made to consciously portray an image, to imitate reality based on the internal image.) In sum, the child's experience leads to the modification and reorganization of psychic structures, of the ways in which the child comprehends the world. Consequently, increased differentiation and elaboration of the mental image or concepts representing these changes takes place. These internal representations are then expressed in the external graphic images, the intentional drawings of the child. The image is the starting point of drawing (Piaget, 1945). And the drawing will contain what is most meaningful and most essential to the child's concept of an object, person, or event.

Thus, Piaget (1969) stresses that a child's drawing is not so much a "reproduction" (a visual copy), but a "representation" (a subjective impression). What is significant to the child will vary at different stages of development, reflecting the changes in affective and cognitive functioning. The child progresses from a subjective to a more objective view of reality, from the concrete to the abstract, from static to transformational images. According to Piaget, drawings are therefore one means of tracing this development and of assessing the child's cognitive functioning. One can observe the gradual differentiation of the action, the concept and the object in the child's comments about a drawing. For example, the child who insists that "You can't draw Mommy as a baby" because "Mommy isn't (or wasn't) ever a baby," confuses a concept with the actual object and with a representation. In addition, in cognitive terms, this child is unable to perform the mental operations

(to think in terms of reversibility) which would break the dependence on perceptual features and allow for abstraction and generalization. (This interpretation, however, does not take into account the possible affective sources of this child's reluctance to picture Mommy as a baby.) Frequently, very young children can be seen to confuse the representation of the person with the actual person--the drawing is the person. Obviously, in an adult, such behavior would be indicative of emotional and cognitive disturbance, a failure in reality-testing. In the child, it may signify a point in the development toward increased differentiation, or be a phase-appropriate form of play. Similarly, the child may at times confuse the act of drawing with the product. Thus, everything the child draws is labeled "me" because "I drew it." Piaget would interpret this in terms of the confusion of action and object, sign and signifier, typical of the early phases of cognitive development. (In another sense, this behavior may be viewed as an expression of the notion that every drawing in some way represents the self-concept.) The point, for Piaget, is that this image undergoes changes as a function of maturation and experience. The child cannot yet verbalize these experiences adequately, but can communicate them in drawings.

In his studies (1948) of children's spatial representations--both their copies of geometric figures as well as their spontaneous drawings--Piaget distinguishes stages in the development of the structural organization of drawings. The variations he observed at different points in development are related to the child's cognitive level. At first, understanding of objects in space is based more on conceptual principles than on perceptual and objective properties. The child only gradually

recognizes and incorporates these features. Piaget describes three stages in this process. They are, with approximate ages, as follows:

1) the topological, 2-2 1/2 to 4, pertaining to the property of being connected or bounded (the child can differentiate between open and closed shapes, but not between circles, squares, triangles);

2) the beginning Euclidean and projective, 4 to 7 or 8, involving awareness of distance, angles, measurement, size, perspective, etc.;

3) the coordination and integration of topological, Euclidean and projective elements, 7 or 8 to 9, such that all these properties are taken into account and appropriately related to each other. The drawings are now like an adult's, regardless of artistic skill. That is, the child's understanding of spatial and geometric relationships and perceptual properties parallels that of the adult's cognitions. Piaget points out that these stages in the "evolution of spontaneous geometry" coincide with the phases observed by Luquet in the development of realism in children's drawings. Luquet's (1927) studies of children's drawings continue to serve as a classic interpretation of the development of drawing.

In his Le Dessin Enfantin, Luquet traces the central themes and principal trends in children's drawings. He describes the kinds of things the child tends to draw, the role of graphomotor abilities, of intention, association of ideas, and unconscious factors in the creation of a graphic representation. He demonstrates, for example, how the influence of external circumstances, or the pleasure experienced in repeating a particular motion, or the "inherent" difficulty or complexity of a drawing task, affects the child's performance. The child may set

out to draw one thing but due to various factors--competence, forgetting, perseveration--end up drawing something else. Or, what appears to be a universal phenomenon, the child tends to make drawings of the same motif or subject according to a type. Thus, the earliest drawing of a person is usually a "tadpole," i.e., a circle "head" with two "legs" (or "arms") coming out of it. The child persists in drawing a person in this way despite the realization that this is not how a person "looks." Luquet refers to this as the "conservation of type" and suggests that it occurs because the child unconsciously persists in conforming to the original internal image s/he constructs.

This mental image (modele interne) is based on the selection of particular aspects or features of an object (person, event) which have personal significance for the child. The "tadpole man" represents to the very young child that which is most essential and characteristic of a (generic) man. The child continues to draw that image until it becomes modified through increased experience. Only after the establishment of this generalized "picture" of a person does the child begin to take into account the distinctive details which distinguish one individual from another. Thus, gradual "modification of type" occurs because of expansion and differentiation of the internal image. The child's drawings change as new elements of the object become meaningful and are integrated into the existing internal model, producing changes in it. This analysis is similar to Piaget's understanding of the development of the mental image and of the changes in cognition due to assimilation and accommodation.

Luquet emphasizes that, throughout this developmental process, the child makes a gradual transition from subjective realism to a more objective realism. He believes that from the beginning, the child's drawings are "essentially and intentionally realistic" (1927). However, this realism differs from the perceptual realism of the adult. According to Luquet, realism in drawing passes through several stages before the child attains the visual realism of the adult. The first stage, "fortuitous or involuntary realism" refers to "the realism of the scribble whose meaning is discovered in the act of making it" (Piaget, 1969, p. 64). Usually this occurs at around 2 to 2 1/2 years. The child becomes aware that the lines suggest a form or meaning and then consciously attempts to represent something. This is followed by the phase of "failed realism or synthetic incapacity." During this phase, which lasts until about the fourth year, the child's realistic intentions are hampered by both physical and psychological obstacles. First, grapho-motor skills are limited at this age. Secondly, the child cannot yet coordinate and integrate different aspects of the object to be represented. Failures occur in proportion, perspective, and in the relationship of different parts of the drawing to each other and to an overall orientation. For example, elements of an object are drawn next to each other instead of coordinated into a whole: buttons are drawn along side the person's body, or, as noted above, legs are drawn extending from the head (Luquet, 1927). Slowly the child progresses in the ability to synthesize accurately the component parts of the picture. The third stage, from about 4 to 7 years, is that of "logical or intellectual realism." This is characterized by the inclusion of details which are not actually

visible but which the child knows are part of the object. Conceptual attributes dominate regardless of visual perspective. Thus, the child draws the front and back of an object, or a face in profile but with two eyes, or "transparencies"--the body is seen through clothing, a man sitting in a car can be seen through the door of the car. Finally, at about 8 to 9 years, the child attains "visual realism." Drawings are now from one perspective, according to an overall plan within which all the elements are appropriately related.

Luquet points out that these stages overlap. They are not established all at once. Occasional "throwbacks" to a prior stage occur. But progress is achieved by each stage "opposing itself" to the previous one, similar to the way in which Piaget describes changes in cognitive structure as taking place. From this, a new level of psychic organization and synthesis results.

Di Leo (1970) has used the relevant findings of both cognitive and psychoanalytic theory to present an overview of the development of drawing behavior in children and its relationship to the individual psychology. He suggests that the sequential stages in drawing activity are closely tied to the "maturing concept of the body image" (1970, p. 15). Changes in motor skills, cognitive functioning, psychosexual and affective behavior--all play a role in this process. Like Luquet, Di Leo describes an orderly pattern to the child's drawings: progressing from the simplest to more complex, differentiated forms, the earlier forms being integrated and incorporated into later ones. The process is marked by the transition from motor and kinesthetic experience to representational modes. Early drawings, from 1 to 3 years, are characterized by

"motor play"--pleasure in motor functioning, in the act of scribbling and repeated rhythms. Gradually, after three years, this is superceded by directed attempts to represent what the child finds meaningful. Drawings become "expressive of inner realism" and thus reveal the child's "attitudes, feelings and intellect" (1970, p. 122). (Di Leo notes that, in fact, children may vary greatly in the timing of these developments.)

Di Leo agrees with Luquet and Piaget that initially, what the child "knows," rather than objective visual criteria, dominates representation. However, Di Leo tends to emphasize affect, rather than cognition, as the determining factor. Unlike Piaget, Di Leo believes that drawings are not imitation, so much as "personal projection" (p. 123). The child's conception of an object, or its parts, is an "interpretation" of what s/he sees based on its affective significance in the child's life. Thus, for example, structural aspects, such as perspective, proportion and size, are based on what is important to the child, as are the inclusion, omission, or elaboration of any particular feature. A picture of a man bigger than a house, whose face and hands are the biggest and most detailed parts of his body, indicates the relative significance of the different elements to the child and points the way to possible interpretations. The body image is always assumed to be the starting point for the child's constructions.

As has been noted, the body image also includes an awareness of gender and sexuality. This is expressed in children's drawings in two distinct ways. The first refers to variations in drawing behavior based on sex. Just as there are differences due to age, investigators have observed sex-typed behavioral difference. Machover (1950), for example,

found group trends in her study of children between the ages of 5 and 12. She suggests that differences in the sexes at each age are often "more striking and dramatic" than age level differences (p. 238). She points out that these distinctions do not occur until about 6 years of age. Prior to this, the drawings of boys and girls are very similar. This finding accords with other research work with very young children. Vroegh's (1970) study of figure drawings of children between 3.3 and 5.6 years demonstrates no significant differences based on sex. Vroegh asserts that the drawings of preschoolers are not a valid measure of sex-role identity. She points out that at this age not only is it almost impossible to differentiate the drawings as to sex, but it is difficult to recognize a wholly differentiated figure of a person to begin with.

By six years, however, clear sex differences becomes discernible. Machover states that "the drawings of girls are more mature in body concept, are more realistic and detailed, and express greater fluency, more flexibility and composure than do those of boys" (1960, p. 239). In addition, girls are more likely to draw sex characteristics and distinguishing features than boys. For example, girls draw a "cosmetized face"--cupid-bow lips, eyelashes, static figures facing front on display, and shorter limbs, while boys tend to draw figures in motion, profile views, and larger hands and limbs. Both Machover and Koppitz argue that many of these behavioral differences can be traced to the different cultural expectations and socialization experiences of boys and girls. The values acceptable for girls, e.g., orderliness, control of sexual and aggressive impulses, decorative self-display--are put to use in the drawing composition. Boys, Machover suggests, experience more conflict in

adapting to their sex-roles and in controlling their impulses, as well as encountering more demands for achievement and autonomy: These issues are expressed in the more action-filled, less organized, and less "neat" pictures boys apparently produce. Goodenough (1926), Harris (1963), and Di Leo (1970) have also observed these patterns in comparing the drawings of girls and boys.

Similarities, however, have also been noted. Throughout latency, both sexes usually draw the female figure as more powerful and/or threatening than the male (Machover, 1949). This appears to be related to the more overtly dominant role the mother usually plays in the child's life. Also, when asked to draw-a-person, both sexes tend to draw a "man" (Harris, 1963). Perhaps this reflects the very early internalization of attitudes toward the self based on sex. The child associates "person" with a male adult. Similarly, Broverman et al. (1972) discovered the tendency of adults of both sexes to view the "healthy adult" as having the same attributes as the "healthy man" and to perceive the stereotype for women as less healthy. Their research suggests that "feminine" traits are less valued than "masculine" traits which are considered congruent with being an adult "person." Conceivably, at an early age children are already identifying with these social values. Or, it may be that for both girls and boys, a person is at first, as Luquet says, a "generic" man, whereas a woman may be understood more specifically as "Mommy" or "Nana," etc. Other interpretations are possible and need to be explored further to more fully assess the role of same-sex and opposite sex identifications in drawings.

In addition to behavioral differences based on sex, researchers have been interested in the ways in which children of both sexes portray gender and sexuality in their drawings. Most authors assume that awareness of gender identity is formed by at least three years, although the child cannot yet clearly indicate sex-differences in their drawings. Nevertheless, even at a very early age, children express their sexual preoccupations symbolically. For example, in the treatment of the figure's hair or in the shading of the body, the young child may convey sexual interest, excitement or anxiety (Machover, 1949, 1960). With increasing age, more features are included which suggest sexual concerns and awareness of sex roles. Type of clothing, jewelry, pocketbooks, pipes, hats, canes, and secondary sex-characteristics such as muscles, beards, or the outline of the breasts and hips--all begin to appear with greater frequency after 6 years of age.

Rarely, however, do children portray the genitals directly. Di Leo (1970) suggests that this is probably not due to cultural prohibitions. Instead, he believes that this tendency reflects the child's early body-concept before the genitals take on the significant interest and meanings brought about by puberty. Thus, he argues that during latency, the head and gross body parts--related to increased ego-functioning and motor co-ordination and control--are more consciously important to the child. It seems likely, however, that feelings about masturbation and social mores do influence the child's drawing behavior. Most adults when asked to draw-a-person usually do not draw a nude figure. As Di Leo (1970) indicates, the portrayal of the genitals is most likely to occur when the child is confronted by a particularly anxiety-arousing situation such as

an operation--hernia, circumcision. Otherwise, indirect symbolic representation is the norm. Erasures, shading, decoration or emphasis of the genital area may then be expressive of underlying conflict.

It should be clear that drawings are a useful device for exploring the child's self-concept. The representation of the human figure reflects many aspects of personality--intellectual functioning, affective concerns, identifications with others, gender and sex-awareness. Analysis of drawings also illuminates the role of the mental image, of imitation and of the symbolic function in the developmental process. Children's comments about their drawings yield additional insights into their view of the world and their sense of their own identities.

Restatement of the Problem and Hypotheses

The purpose of this research is to investigate the development of identity within a psychoanalytic and developmental-cognitive framework. By focusing on children and examining how they construct a sense of identity, the following problems emerge:

Do children have a different conception of identity at different ages and, if so, what constitutes identity at each stage?

What are the criteria by which the child's understanding of identity can be assessed?

What are the process which underlie the construction of identity?

To what extent is the conception of identity at different developmental phases due to affective and/or cognitive factors?

In exploring these questions, further issues arise as to the status of the mental image, the emotional attachment to the primary caretaker, the role of internalization and of gender development in the formation

of identity. This study attempts to analyze and discuss these issues in order to understand how a coherent and stable sense of identity evolves.

Hypotheses

The following hypotheses are suggested:

1) Children undergo significant changes in their sense of identity during development from both a qualitative and quantitative point of view.
2) There will be a significant relationship between affect and cognition in the development of identity as displayed in children's drawings and related comments.
3) There will be significant differences in terms of age in the child's ability to abstract the essential operations necessary for conserving identity, for conceptualizing the future while integrating past and present aspects of the self, in the sense of identity.

Chapter III

Experimental Method

Subjects

Thirty subjects, 15 boys and 15 girls between the ages of 3 years 7 months and 8 years 11 months, participated in this study. The mean age was 72 months with an SD of 18.61 months. Twenty-six of the children were white, two were of mixed background--black and white, one was Chinese-American, and one Pakistani. They came from predominantly middle-class, intact families. In the few instances in which the parents were separated or divorced, there was usually some contact with both parents. Approximately two-thirds of the children had at least one sibling, while a third were "only" children. Two of the children were opposite-sexed, fraternal twins.

The subjects were drawn from a day-care center and a co-ed preparatory school in Brooklyn, New York. Contact was made through the administrators of both schools. The experimental procedure and rationale were explained. The director of guidance and/or the staff teachers facilitated the selection of subjects, and parental permission was obtained. There was some screening out in advance of children who were thought might have problems with the experiment and of those who began the experiment but either indicated that they did not want to continue or were judged by the experimenter as unable to complete the tasks adequately. Of the subjects finally selected, there was no evidence of behavioral problems, gross motor or physical impairment, or emotional retardation. Many of the

children volunteered to participate based on the positive reports of classmates who had undergone the experiment.

The subjects, chosen on the basis of age and sex, were assigned to three groups:

Group 1: 3.7 to 4.11 years

Group 2: 5.1 to 6.11 years

Group 3: 7.1 to 8.11 years

An attempt was made to represent the broadest range of ages within each group such that no two children were the same age at the time of their participation in the experiment. Table I shows the breakdown of subjects according to age and sex. The age ranges were selected for several reasons. First, even the youngest child was able to begin to express verbally and behaviorally (through graphic representation) some understanding of the sense of self. Secondly, according to psychoanalytic theory, the groups constitute the transition from one psychosexual stage to another: from the oedipal through the latency phase. They should, therefore, demonstrate variations in the formation and degree of identifications. Finally, according to Piaget, the groups represent significant stages in cognitive development. The youngest group should reflect the emergence from purely sensorimotor activity to the symbolic function; Group 2 should show further progress within the pre-operational period; and Group 3 should manifest the attainment of concrete operations and the consolidation of the conservation of identity.

Table 1

Individual Performance Scores

Subject	Age in Months	Sex	Co-group	NGI[a]	Per-label	Tre-order	Sum F1	Sum F2	Verb-sum	$\bar{X}$ Height	SD Height
1	43	1	1	332	2	5	1	0	39	69.50	24.89
2	45	2	1	131	2	4	0	0	21	36.71	28.28
3	47	2	1	220	1	4	2	1	24	47.38	22.66
4	49	2	1	330	2	4	1	0	25	66.63	16.06
5	50	1	1	132	1	4	0	0	7	77.00	31.51
6	51	2	1	134	1	4	0	0	18	52.58	35.78
7	55	2	3	331	3	8	35	3	4	51.58	22.59
8	56	1	3	331	2	4	3	0	34	72.25	18.93
9	57	1	1	331	2	4	4	0	6	67.29	23.54
10	59	1	7	334	2	12	5	0	29	48.04	36.00
11	61	1	2	230	1	4	0	0	25	55.54	20.56
12	64	2	3	133	3	8	27	0	22	39.42	16.79
13	66	2	3	331	2	5	26	1	29	31.75	12.29
14	68	1	2	332	2	4	3	0	13	72.63	22.61
15	71	2	4	334	2	8	27	0	4	20.25	8.91

[a] NGI = Name, Gender, Identity-Awareness

Table 1 (continued)

Individual Performance Scores

Subject	Age in Months	Sex	Co-group	NGI[a]	Per-label	Tre-order	Sum F1	Sum F2	Verb-sum	$\overline{X}$ Height	SD Height
16	74	1	7	330	2	6	10	5	32	43.46	35.95
17	75	2	4	335	2	8	28	2	27	55.33	21.53
18	76	2	7	335	3	12	24	0	2	51.71	18.35
19	80	1	4	220	2	12	24	0	6	22.46	5.92
20	83	1	3	332	2	8	11	0	30	44.46	14.02
21	85	1	3	331	3	16	32	7	27	33.58	23.49
22	86	2	4	334	2	15	38	5	27	65.25	22.02
23	88	1	9	232	3	14	35	2	32	32.33	8.91
24	89	2	5	336	3	12	23	0	25	32.58	7.57
25	91	1	3	331	1	6	12	1	15	20.63	12.56
26	95	2	3	325	1	4	8	0	7	13.75	4.59
27	96	1	6	324	3	16	38	8	38	42.79	21.46
28	98	2	8	334	3	15	37	6	22	17.88	7.11
29	99	1	4	331	3	12	7	3	13	15.17	5.49
30	107	2	9	336	3	16	46	11	18	63.13	11.73

[a] NGI = Name, Gender, Identity-Awareness

Rationale of the Overall Approach

The experiment consists of both structured tasks and informal questioning. This approach is based on Piaget's concept of the "clincial method" (1929). It is more fruitful than the "right" or "wrong" framework of the test method, which, in failing to take into account context, overlooks crucial personality factors and "falsifies the natural mental inclination of the subject" by defining and restricting the terms of response (1929, p. 3). The clinical method also goes beyond pure observation which necessarily limits the area and degree of investigation. According to Piaget, the clinical method combines the best aspects of both approaches: a relatively structured framework--a task or problem to be solved--within which there is a great freedom of response and the opportunity to explore more flexibly and fully the subject's behavior and thinking through follow-up questioning and comments. The focus is on the subject's understanding, the "direction of thought" (p. 27), not the "correctness of the answer." Piaget is interested in uncovering the child's "inexpressible thoughts" or "tendencies of mind" which are hinted at through further verbal interaction. The examiner's questions, therefore, attempt to elicit and trace, rather than direct, the subject's thoughts: They are addressed to the subject's spontaneous comments and behavior. In this way, the clinical method of research is similar to the approach of the clinician doing therapy.

As Voyat (1982) points out, Piaget's experiments are not tests but "conceptual explorations" (p. 15) which seek to reveal the way a particular child--a "real child as opposed to the theoretical one" (p. 14)--

understands and attempts to solve problems. The clincial method allows for the overall assessment of a child's cognitive functioning and structural level. By tapping different areas of the child's thought, a distinct "mode of operating" becomes apparent, characteristic of the general underlying cognitive organization. This method permits a "stage" approach rather than a "fixed-age" approach at which cognitive achievements are presumed to occur: A "global picture of the child's cognitive functioning" is obtained through a variety of tasks (Voyat, p. 15). The developmental stage (e.g., preoperational, transitional, concrete operational, etc.) attained by the child can then be determined. Voyat emphasizes that the child's "justifications," the reasoning behind the solution to problems, are essential for exposing the logical processes involved and ascertaining the child's cognitive stage. The clinical method presents the child with a structured situation pertaining to a particular issue or concept and asks the child to lead the way in finding a stage-appropriate solution.

While Piaget used the clinical method to uncover cognitive functioning, it should be evident that this approach can tap other aspects of personality, such as emotional behavior and attitudes. The behaviors expressed in the course of such exploration can be subjected to analysis and interpretation in terms of affective and interpersonal dynamics. This study used the clinical method--structured tasks, observation, and informal questioning--to examine the development of identity. From a quantitative analysis of the results, individual and group assessments and comparisons can be made.

Procedure

Preliminaries

The experimenter saw each child on an individual basis at the school they attended. The amount of time required to complete all the tasks varied for each subject, ranging from 30 minutes to 2 hours and 15 minutes. Similarly, the number of sessions per child varied from one to three, depending on the child's pace, fatigue factors, level of interest, attention span, or as a function of school activity scheduling. No session lasted longer than 1 hour and 15 minutes. The longest sessions usually involved the oldest children. When more than one session was necessary, as was often the case with the youngest children, another was held within at least two weeks to minimize the possible influence of developmental changes.

Each subject was introduced to the experimenter having been told that they would be asked to play with clay and draw some pictures. Depending on the child's age and curiosity, the experimenter might also add that she was interested in "the way children think about things, about themselves and the world," or offer a related explanation geared to the child's level of understanding. Many of the older children were informed that the experimenter was a student herself doing a project for school. Throughout the experiment, enough information was offered to establish and maintain rapport. For children who expressed particular interest in the experimenter and wanted to know what a psychologist is or does, time was taken at the end to respond to their questions. Throughout the experiment, however, spontaneous conversation occurred and was encouraged, in addition to the comments elicited by the experimenter's questioning.

All the sessions were tape recorded. When it seemed necessary, children helped set up the machine and listened to their voices to put them at ease. Care was taken to convey that they were not being tested or graded for school. (For the most part, the children were eager to participate and appeared to enjoy the experience.) After some preliminary questioning--e.g., as to the child's age, number of siblings, etc.--the experiment proper began.

The Experimental Tasks

The experiment consists of the following tasks:

1) Conservation of matter;

2) The drawings, all comments also noted;

3) Reordering and labeling of the drawings;

4) Three questions related to identity-awareness

1) Conservation of Matter

Rationale. The conservation of matter is a Piagetian task for assessing cognitive level and determining the degree of the development of the concept of conservation (1941). It refers to the ability to understand that a quantity of matter does not change due to transformations in shape. It is one indication of the attainment of the concrete operations, representing a new level of cognitive structuring and functioning. Like other aspects of intelligence, the concept of conservation passes through a sequence of stages in the child's understanding before it is fully established. The stages and their criteria, described by Voyat (1982, pp. 81-82), are as follows:

1) Between the ages of 4 and 7 the child believes a quantity of matter changes due to physical transformations; judgment is tied to one dimension--

perceptual changes overly influence logic--absence of conservation.

2) Between the ages of 6 and 8, the child "vacillates in his answers and usually fails to conserve": focus tied to one dimension at a time and conservation is not generalized--conservation is a possibility.

3) Between ages 7 and 9, the child maintains conservation of matter despite transformations in the physical and perceptual properties of an object; justification of this observation is by arguments of identity, compensation, and reversibility (in order of increasing sophistication)--conservation is a logical necessity.

The Task. The child is presented with a ball of clay and asked to make two balls of clay with the same amount in each. When the child asserts that the two balls are equal--when they look the same to the child although objectively they may not be--the experimenter proceeds to transform one of the balls by making it into a sausage shape. The child is then asked, "Are they still the same amount? Or does one have more?" The experimenter rolls the sausage shape back into a ball and asks again, "Are they still the same amount? And Why?"

The experimenter then takes one of the balls and flattens it into a pancake shape. The same questions are repeated as above. The pancake is returned to its ball shape, and again, the questions are asked. In every case, justification of the answer is requested.

Finally, the experimenter transforms one of the balls into several little pieces and asks, "Is there the same amount here (gesturing over the pieces)? And Why?" Then, all the pieces are put back together in a ball, and the experimenter once again repeats the questions, comparing the two balls.

2) The Drawings

Rationale. As discussed in the literature review, drawings are a fruitful measure for exploring the child's concept of "the felt self, the ideal self . . . the future self" (Hammer, 1960). Since this study is concerned with the child's sense of self over time, the awareness of "self-sameness" in the midst of change, it was hoped that a series of drawings of the self at different points in development might reflect this phenomenon more accurately than one projective of "a human figure." In addition to representing the child's present self-image, such a series would indicate the child's perception of both significant invariant and changing features of the self in the course of the development of identity. Similarly, the drawings should tap the child's conceptual understanding of identity, identity as an intellectual construct involving both qualitative and quantitative notions (Piaget & Voyat, 1968). The assumption is that the child's cognitions will be graphically expressed. For example, the mental operations such as conservation, anticipation, and reversibility, which allow the child to maintain identity despite transformations, should become manifest.

Since imitation and identification are believed central to the constitution of identity, drawings of the parents--the primary caretakers--are included in the task. A series of each parent, also at different developmental phases, offers a possible basis for examining the nature and degree of the child's affective attachments and identifications. In addition, these drawings provide an overall source of comparison between images of the self and significant same-sex and opposite-sex others.

A similar series of drawings of the experimenter is also useful in further highlighting the child's notions of identity. The experimenter serves as a more neutral figure for the child to consider in relation to the above concepts. The child's knowledge of and affective connections to the experimenter are minimal: they arise within the context of the experiment. It should therefore be interesting to observe the child's conception of the experimenter in comparison to the other figures. The drawings should reflect both affective and cognitive aspects of identity and provide both within and between figure-series contrasts and/or consistencies:

The drawing task represented here is more structured than those used by Koppitz and others. For this study, while each child serves as his/her own standard and individual differences are noted, the focus is more on group trends concerning the generic and personal aspects of identity. The "pure" projective approach, geared toward individual diagnostic assessment, is therefore not necessary.

The Task. Each child was given paper and pencil and asked to draw a set of pictures of him/herself, mother, father, and experimenter--a total of 24 pictures. The child drew six pictures of each person before proceeding to the next set. The order in which the children drew each of the four persons varied so as to minimize practicing and fatigue effects. For example, one child might draw in sequence Mom, Self, Dad, Experimenter; the next child, Dad, Experimenter, Mom, Self, etc.

Within each set, however, the sequence of the six different conditions, representing six different developmental life phases, remained the same for each child. Thus, the children drew the pictures of the Self in the following order:

Now, as you are now
As a newborn, when you were a baby
When you were learning how to walk
When you'll be a teenager
When you're all grown up, an adult
When you'll be very old, like a grandparent

The sequence for Mom, Dad, and Experimenter, was always:

Now
As a baby
Learning how to walk
Your age (the child's age now)
As a teenager
As a very old person

In each instance, the child was being asked to begin in the present, then remember or imagine past conditions, and finally to represent projected future images. Upon completion of each drawing and before proceeding to the next, each drawing was collected and marked on the back as to person and life-stage: e.g. Self Now = SN, Self Baby = S1, Self Old = S5, etc. All comments were also recorded. Sample drawings are provided in Appendix A.

3) Reordering and Labeling of the Drawings

Rationale. In order to further assess the child's understanding of the continuity and stability of identity, the developmental sequence and transformations involved, and the degree of differentiation between self and other (and between others), another task was necessary. The children were asked to reorder and label the pictures they had drawn. To accomplish this, they were guided by the variety of identifying or distinguishing features they had used to particularize each person drawn. In addition, this task requires some comprehension of the notion of seriation, "arranging elements according to increasing or decreasing size" (Piaget, 1969). Like the conservation of matter or the ability to

classify objects, seriation involves actions of coordination, arrangement, reversibility and reciprocity, processes which constitute the "concrete operations." As Piaget points out, these cognitions develop in stages: Seriation becomes "operatory" at about 7 years of age. Prior to this, there is some ability to seriate two items, for example, but not to coordinate a whole group of items (to recognize the continuity from item to item). In the following task, however, even if the child could not actually order the drawings, s/he could "identify" or "point to" particular drawings, indicating some understanding of the task and some recognition of a specific condition or stage. To highlight this and examine consistency, children were asked to label the drawings as to person.

The Task. Four sets of drawings were collected from each child. Each person-set of six was "shuffled" (order mixed), and one set at a time was handed back to the child in random order. With each set, the child was asked to "put them in order, arrange them in a series, the way they should go." Whatever the arrangement, the child was then asked, "Who is this?" or "Who are these people?" This was followed by a variety of related questions based on the child's responses: "They're all the same person? Who's that? Is that 'you' too? How can you tell? Show me 'Daddy as a teenager,'" etc. The drawings were then collected in the order the child had arranged them. Each drawing was labelled on the back with a Roman numeral to indicate the new order. This procedure was followed for all four sets of drawings.

4) Three Questions Related to Identity Awareness

Rationale. As has been noted, children initially believe that their names are an essential, intrinsic part of themselves. Only gradually do

they realize that a name is a sign, a way of representing something which does not actually arise from, and can be distinguished from, the thing itself. Although names usually have "meanings" for the parents who assign them to the child and the child seems to "grow into the name," acquiring characteristics associated with the name, these are values the child comes to identify with and eventually recognizes as such. The child contributes further meanings from personal experience and associations, and in this sense, the name becomes a part of the self-concept. Nevertheless, the child's ability to recognize that the name is a symbol indicates an increased capacity for self-reflection and the consolidation of identity.

It has also been observed that gender contributes to the formation of identity. While awareness of gender develops early, gender constancy is only established gradually. At early ages, the child may show some vacillation as to gender identity, before it is fully integrated as an essential, relatively fixed aspect of identity. Since the child's relationship to both name and gender reflects identity-feelings, questions were posed about these issues.

Finally, the child's thoughts about selfhood were directly addressed. The capacity for conscious self-reflection develops slowly. It is a relatively advanced accomplishment for the child to actively view the self as an object of his/her own thoughts, to become self-aware. How the child conceptualizes the sense of self should vary according to cognitive level and affective experience. The following questions focused on these problems.

The Task. Each child was asked three questions:

"If you had a different name, would you still be you?"

"Could you be a (boy)(girl) if you wanted to?"

"How do you know you're you?"

With each response, the experimenter attempted to elicit as much elaboration as possible to uncover the child's reasoning.

Finally, the experimenter asked the children if there was anything else about themselves they wanted to say and if they had any other questions. The experiment was then completed.

Scoring

Reliability

All scoring was done by the experimenter. Reliability was ensured by the following factors:

First, several well-established measures were used, such as Piaget's criteria for the Conservation of Matter and Luquet's scale for the Picture Stage of the drawing.

Secondly, other aspects of the children's behavior on the tasks gave rise to additional categories or criteria related to identity-issues which could be subjected to meaningful rating systems. For example, certain features appeared in the drawings which were particularly indicative of a life-stage, sexual or social role. Such attributes could be scored according to their presence or absence, as well as according to their degree of specificity, in a regular fashion ensuring internal consistency. Here, the scoring system derives from the theoretical assumption that these graphic details reflect the level of cognitive sophistication and types of affective identifications underlying the child's sense of identity. The greater the number of such differentiating factors, the higher the achieved score. Other coding systems, such as those pertaining to

the affective tone of the drawings or the types of verbal comments made, were similarly derived from the children's performances: Certain kinds of emotions or remarks predominated and could be classified according to distinct categories.

Finally, certain measures are objectively valid: for example, the heights of each figure drawn, the correct or incorrect ordering or labeling of pictures, "Yes" or "No" answers to the Identity-Questions.

When uncertainties as to scoring arose, this was often an indication that the child was undergoing a transitional phase in relation to the behavior in question and was so noted. In a few instances, such as lack of clarity as to the affect expressed in a drawing, difficulties were resolved by scoring the behavior unclear or undifferentiated.

Outline of Scoring Manual

Appendix B presents the scoring systems, criteria and ratings for all data coded. The manual provides examples of relevant responses used to determine assigned values within a conceptual category. Three different levels of data organization are involved:

1. Scores derived from a child's total performance. For example, the Conservation of Matter task, and the child's age, sex, and responses to the Identity-Questions, each yield a single score.

2. Scores based on a set of six drawings only. They derive from the child's performance on the six drawings of any one person--i.e., either the Self, Mom, Dad, Experimenter. The child's ability to Reorder the drawings of a set are scored in this way.

3. Scores assigned to each drawing individually, such as the Affect scores. Verbalization scores, also assigned to each comment individually,

refer to the type or category of comment made about a drawing. Where indicated, scores derived from sets or individual drawings were totaled for statistical purposes. Additional information regarding the scoring procedure follows here.

Conservation of Matter was scored for the presence or absence of conservation and for the type of justification or reasoning used.

Picture Stage for Luquet was scored first for each drawing. A single final score was then assigned based on the preponderance of a particular Stage over all 24 drawings. In a few instances, a child's drawings might reflect different levels of Developmental Stage. These behavioral differences represented transitional phases and were noted for later discussion of qualitative factors and individual differences. The dominant rating was used for computational purposes.

Picture Structure according to Piaget. As with Picture Stage, Structure scores were assessed first for each drawing and then one overall rating was assigned. Transitional phases were noted as above.

Affect was scored in three ways. First, each drawing was scored as to the dominant affect (nominal scale) expressed, yielding 24 scores for each child. A Diversity of Affect score was then derived for each child indicating the number of types of affect expressed overall (not including the Undifferentiated category). Finally, an Affect Mean score for each child was determined indicating the "average" emotional tone of the child's drawings and the range of variability among the children. These scores were arrived at as follows: The original affect scores were grouped

into three new categories and assigned values ranging from 0 - 48. Thus:

If all 24 drawings were Sad + Angry + Anxious = All Negative = 0.

If all 24 drawings were Undifferentiated (neutral, unclear) = All Undifferentiated = 24.

If all 24 drawings were Happy + Surprised = All Positive = 48.

Affect Mean is then expressed as: 24 + (Positive - Negative) scores.

Height. Each drawing was measured in height to tenths of an inch. Since children varied as to whether they drew with the paper in a vertical or horizontal position, for purposes of comparison the height scores were converted to z-scores indicating total percentage of the page used. Mean height and SD were then calculated for each child.

Features 1. Drawings were assessed for the presence of items particular to the child and especially relevant to or associated with a distinct developmental stage, psychosexual or psychosocial role. Those items were considered to be personal or ego-referent--that is, they are features which are "part of the person," integral to the sense of identity. The total number of such features over all 24 drawings yielded a Sum F1 for each child.

Features 2. Each drawing was scored for items indicating a particular context or situation. Such features were considered external to the person but related to identity-awareness. These scores were totaled across all 24 pictures yielding a Sum F2 for each child.

Verbal Comments. All comments made in relation to the drawings were scored (nominal scale). Scoring categories derived from the kinds of

remarks the children made. The comments for each drawing were classified as to type; each type scored as a "hit" (to arrive at frequency scores); and then the total of all comments per child was obtained = Verbsum.

Reorder. Each set of six drawings was scored according to the child's ability to reorder them after they had been shuffled. The total score across all four sets for each child yielded a total reorder score = Treorder.

Person Labelled. After reordering the drawings the child's ability to label each set of six as to person was scored and an overall score was obtained = Perlabel. The child's comments during the reordering and labelling tasks were noted for discussion purposes but not scored.

Identity-Questions: Name, Gender, Identity-Awareness. Scores were obtained for each child for each question. Categories of Identity-Awareness were derived from the children's responses. An attempt was made to order them according to increased levels of self-awareness.

Chapter IV

Quantitative Results

Data Base

The data base consisted of 31 variables. Three of these--Group, total number of Minutes, and number of Sessions--were omitted from the final statistical analysis.

The Groups were initially selected to conform to three nominal ranges with five boys and five girls within each. The Groups were to comprise three developmental moments: In psychoanalytic terms, they represented the early oedipal, oedipal and beginning latency phases; in Piagetian terms, they spanned the transition from pre-operational to concrete operational periods. However, there was a great spread within all three groups such that no more than one month difference in age existed between the oldest child in one group and the youngest in the next. The children's actual ages were, therefore, considered a more meaningful variable for computational purposes than the three Groups.

The total number of Minutes and Sessions involved were also noted but not included in the final statistical computations. The mean number of minutes was 65.15 with a range of 30-135 minutes. Six children completed the tasks in one session, 14 in two sessions, and 10 in three sessions. The shortest session was 15 minutes (under 5 years) and the longest was 90 minutes (over 7 years). Duration tended to increase with age. The older children usually spent more

time on the drawing task and never finished the entire experiment in less than 45 minutes.

Final Variables

The remaining 28 variables formed the final data base. Two of these--Sex and Age in months--comprised the demographic data. The other variables refer to different aspects of the children's performances on the experimental tasks, including their verbal comments. Since one of the main interests of this study was to examine the relationship between cognition and affect in the development of identity, an attempt was made to group the variables in terms of their general cognitive and/or affective value. For example, several of the variables appear to be primarily a function of cognitive development, while others can be characterized as primarily determined by affect. Still others seem to be structured by more of an interaction of both factors with one or the other predominating at different phases. The final variables, conceptualized in this way, were organized (and abbreviated) as follows:

2 Demographic Variables:
- Sex
- Age in months--Agemo

6 Primarily Cognitive Variables:
- Conservation of Matter--Conserve
- Drawings: Picture Stage--Luquet--PicStage
  - Picture Structure--Piaget--PicStruct
  - Ability to Reorder Pictures--Treorder
- Verbal Comments: Cognitive--Cognit
  - Descriptive--Describe

7 Primarily Affective Variables:
- Drawings: Positive Affect--Pos
  - Negative Affect--Neg
  - Undifferentiated Affect--Undiff
  - Diversity of Affect--Diverse
  - Affect Mean--Affmean
- Verbal Comments: Affective--Affect
  - Fantasy

13 Both Cognitive and Affective variables:
- Drawings: Height--Mean and SD
  - Sum of Features 1--Sum F1
  - Sum of Features 2--Sum F2
  - Ability to Label Person--Perlabel
- Verbal Comments: Task-related--Task-rela
  - Functional--Function
  - Family
  - Appropriate--Approp
  - Inappropriate--Inapt
  - Sum of verbalizations--Verbsum
- Identity Questions: Name
  - Gender Constancy--Gender
  - Identity-Awareness--Identity

In order to evaluate the central hypotheses of this study--to explore the development of identity-formation, the interplay of affect and cognition in this process, and to note the changes in behavior which indicate significant advances in the understanding of the concept of identity itself--the data was processed according to the Statistical Package for the Social Sciences (S.P.S.S.) Library Programs (N.I.E. et al., 1975). A summary of the results follows.

Summary of Results

Spearman correlation coefficients were calculated for all the variables resulting in a large number of significant relationships.

Formation of Cogroup

Three of the Primarily Cognitive Variables--Conservation, Picture Stage, and Picture Structure--intercorrelated at the .001 criterion level: Conservation with Picture Stage at 0.625, Conservation with Picture Structure at 0.635, and Picture Stage with Picture Structure at 0.832. Based on these high intercorrelations, the three variables were condensed into a single variable expressed as a 3-digit number representing overall Cognitive Group or Cogroup. Each of the original

variables was related to Cogroup at the .001 significance level: Conservation at 0.914, Picture stage at 0.864, and Picture Structure at 0.853. The data could then be reduced to a meaningful ordinal scale representing levels of cognitive maturity and related to identity level. Rather than there being at least 60 possible different ways of ordering cognitive behavior based on the 5 (Conservation scores) x 4 (Picture Stage scores x 3 (Picture Structure scores), the computation of Cogroup yielded a scale of 9 possible arrangements of the three original variables. This scale possesses inherent ordinality and great predicative power. It proved to be the best specification of cognitive function for all 30 children.

Table 2 shows the list of all 30 subjects, in chronological order, with their original cognitive scores and their corresponding rank on the Cogroup Scale. It can be seen that 17 children fail to conserve, 5 are transitional, and 8 have attained conservation of matter. While the entire range of Picture Structure is represented, no child scores a 1 in Picture Stage--i.e., all of the children are past the "scribble" level. The table also shows that age does not necessarily directly determine cognitive level. For example, a relatively high score of 532--Cogroup 7--is attained by Subject 10, age 4 years 11 months. By contrast, a relatively low score of 132--Cogroup 3--is achieved by Subject 26, age 7 years 11 months. Although there is an overall trend for the older children to be more cognitively mature, it is not a perfect relationship.

Table 3 shows the final stepwise scale of Cogroup, the frequencies at each of the 9 levels, and the joint relations among the three original

Table 2

Individual Cognitive Scores and Corresponding Cogroup Rank

Subject	Age in Months	Conserve	Picture Stage	Picture Structure	Cogroup
1	43	1	2	1	1
2	45	1	2	1	1
3	47	1	2	1	1
4	49	1	2	1	1
5	50	1	2	1	1
6	51	1	2	1	1
7	55	1	3	2	3
8	56	1	3	2	3
9	57	1	2	1	1
10	59	5	3	2	7
11	61	1	2	2	2
12	64	1	3	2	3
13	66	1	3	2	3
14	68	1	2	2	2
15	71	2	3	2	4
16	74	5	3	2	7
17	75	2	3	2	4
18	76	5	3	2	7
19	80	2	3	2	4
20	83	1	3	2	3
21	85	1	3	2	3
22	86	2	3	2	4
23	88	5	4	3	9
24	89	3	3	2	5
25	91	1	3	2	3
26	95	1	3	2	3
27	96	3	3	3	6
28	98	5	3	3	8
29	99	2	3	2	4
30	107	5	4	3	9

Table 3

Cogroup Scale and Frequencies

Cogroup Scale	Conserve	Picture Stage	Picture Structure	Frequency Number of Subjects
1	1	2	1	7
2	1	2	2	2
3	1	3	2	8
4	2	3	2	5
5	3	3	2	1
6	3	3	3	1
7	5	3	2	3
8	5	3	3	1
9	5	4	3	2

cognitive measures. The table reveals the transitions from one level to the next and the kinds of combinations which can occur. For example, the lowest Picture Structure score 1 occurs only with the lowest Conservation score 1, whereas the highest Picture Structure score 3 can only occur once conservation has been attained. The highest Picture Stage 4 only occurs with the highest level of Conservation 5. Thus, the transitions within the Cogroup Scale should reflect the discontinuities and shifts in underlying internal structures.

Since Cogroup is a meaningful expression of cognitive functioning and structure, it could be usefully related to other variables of the data base. Table 4 provides a correlation matrix which highlights some of the significant interactions which occurred and serves as a reference for the material which follows.

Treorder

One of the concerns in evaluating the children's performance was the confounding effects, if any, of the initial order of presentation on the reordering task. Table 5 presents the frequency distribution for the total reorder score (Treorder) per child. Did it make any difference if children drew themselves, first or last, Mom first or last, etc.? To determine the influence of this factor on Treorder, a Mann-Whitney U - Wilcoxon Rank Sum W Test was computed. The results indicate that order of presentation of person drawn had no effect on the child's ability to reorder the sets of pictures. Even if a child drew Self last, that did not ensure a high score on reordering Self. Neither recency nor practice appeared to influence reorder performance. Order of presentation, therefore, does not predict Treorder score.

Table 4

Correlations with Age, Cogroup, and Affect Mean

Variable	Age	Cogroup	Affect Mean
Treorder	71***	81***	23
Sum F1	69***	74***	38*
Sum F2	55***	51**	-13
Perlabel	45**	61***	17
$\overline{X}$ Height	-55***	-41*	-42**
Diverse	09	24	-55***
Undifferentiated	-40*	-33*	-70***
Negative	-10	03	-80***
Verbsum	-02	14	-41*
Affective	-12	04	-42*
Cognitive	-46**	-22	-50**
Functional	05	11	-13
Descriptive	58***	49**	05
Family	19	04	21
Fantasy	-05	04	-50**
Task-related	12	14	-30
Appropriate	-18	-01	-25
Inappropriate	-71***	-47**	-53***

* p = .05

** p = .01

*** p = .001

	Cogroup	Affect Mean
Age	.74***	.34*
Cogroup	---	.23

Table 5

Frequency Distribution of Treorder

Treorder	Frequency
4	10
5	2
6	2
8	5
12	5
14	1
15	2
16	3
$\overline{X}$ = 8.47 SD = 4.49	N = 30

Where performance on Treorder is high, it seems to be a function of Age and Cogroup. A Spearman correlation coefficient of 0.71 was obtained for Age in months and Treorder, significant at the .001 level. A stronger correlation of 0.81 between Cogroup and Treorder occurred, also significant at the .001 level. There is a group trend for improved Treorder scores to occur with Cogroup scores.

Features 1 and 2

In addition, it was assumed that the child's capacity to arrange the drawings in a series is dependent on the recognition of specific organizing cues, such as Sum F1 and Sum F2 (personal and contextual features) and their interrelationships. Tables 6 and 7 show the frequency distributions for Sum F1 and Sum F2. A Spearman correlation coefficient shows that the two Features categories intercorrelate with each other at 0.69, significant at the .001 level. Children who used Features 1 cues tended also to use Features 2 cues. Both Features categories also correlated significantly at the .001 level with Treorder and with age.

Individual differences account for the lack of a perfect positive correlation. For example, Table 1 (Individual Performance Scores) indicates that although Subject 7 scored high on both Sum F1 (35) and Sum F2 (3), she failed to reorder any of the sets correctly: Treorder score of 4. Her low Cogroup score of 3, indicating failure to conserve, helps explain her failure to seriate despite the use of highly differentiating features in the drawings. While the use of particularized cues aids in the Treorder, it is not sufficient to ensure perfect performance. The presence of identifying features provided Subject 7 with the

Table 6

Frequency Distribution of Sum F1

Sum F1	f	Sum F1	f	Sum F1	f
0	4	8	1	27	2
1	2	10	1	28	1
2	1	11	1	32	1
3	2	12	1	35	2
4	1	23	1	37	1
5	1	24	2	38	2
7	1	26	1	46	1
$\bar{X}$ =16.90	SD = 14.88	N = 30			

Table 7

Frequency Distribution of Sum F2

Sum F2	Frequency
0	17
1	3
2	2
3	2
4	-
5	2
6	1
7	1
8	1
9	-
10	-
11	1
$\overline{X}$ = 1.83 SD = 2.93	N = 30

necessary information for labeling each set correctly as to the person drawn: Perlabel score of 3, all correct. Seriation, however, was as yet beyond her grasp. Further meanings of Features 1 and 2 will be examined in the discussion section.

Perlabel

The Spearman correlation coefficient between Perlabel and Cogroup is 0.61, significant at the .001 level. This relationship is less strong than that of Cogroup and Treorder. The ability to label and classify occurs prior to, and is essential for, the capacity to seriate. Thus, although Perlabel and Cogroup correlate, it is possible to achieve a high Perlabel score with a relatively low Cogroup score. The data on Subject 7 highlights the complex interaction of Cogroup, Age, and performance on a specific task congruent with the overall findings of group trends. (For detailed comparisons, see, for example, Table 1, Table 4, and Table 8).

Heights of Figures

An exact quantitative measure was obtained for the Height of each drawing. Table 1 shows the Mean and SD scores for the heights over all 24 pictures for each child. In order to evaluate any effects of order of presentation on the heights of figures, a Mann-Whitney U-Wilcoxon Rank Sum test was calculated. There was no relation between order of presentation and the size of the pictures drawn. Rather, as indicated previously, the size of the figure appears to be a function of an interaction of age, cognitive level and affective factors.

Spearman correlation coefficients were computed which yielded a strong inverse correlation between Age and Mean Heights of figures:

Table 8

Frequency Distribution of Perlabel

Perlabel	Frequency
1	6
2	14
3	10
$\overline{X}$ = 2.13 SD = 0.73	N = 30

-0.549, $p = .001$. A significant but weaker correlation exists between Cogroup and Mean Heights: -0.408, $p < .05$. There is a general group trend for children to draw smaller figures as they become older and more cognitively mature.

The Mean and SD for each child are seen to covary: Variability tends to decrease as the Mean diminishes. Thus, the youngest children tend to use most of the page and also demonstrate the most range in the size of their drawings. Older children draw smaller figures of more constant size.

Heights of figures were also related to affect scores. Table 9 presents the frequency distribution for Affect Mean scores. There was a negative correlation of Height with both Affect Mean and Positive Affect at the .01 level. In regard to the affective expression of the figure drawn, there was a general trend for older, more cognitively advanced children to draw both smaller and more "Happy" pictures. However, this definition of affect does not tap other affective determinants which influence the size of the child's representations. These, along with such factors as graphomotor coordination in general, will be explored more fully in the discussion section.

Affect

There were additional associations between cognition and affect variables which proved interesting. Diversity of Affect expressed in the drawings, which was assumed to reflect a higher level of cognitive awareness, was, in fact, not significantly related to Cogroup. However, Cogroup and Undifferentiated Affect (expression) were inversely related at the .05 significance level. This finding suggests that the ability

Table 9

Frequency Distribution of Affect Mean

Affect Mean	Frequency
4	1
9	1
15	1
17	1
18	1
21	1
23	1
24	1
29	1
31	1
34	1
37	3
38	1
42	4
43	2
44	5
47	1
48	3
$\bar{X}$ + 34.63 SD = 12.54	N = 30

to discriminate specific affective states, to express graphically and recognize a differentiated emotion--even if of only one type--increases with age and cognitive skills. The variety of affective expression in the drawings appears to be less indicative of cognitive sophistication than the presence of any differentiated expression at all.

Table 10 presents the Affect scores for each child arranged in order of increasing cognitive level. It can be seen that the younger children, lower on the Cogroup scale, tend to have high Undifferentiated Affect scores: for example, Subject 2 with all 24 drawings Undifferentiated, Subject 5 with 21, Subject 1 with 19. Much rarer were such scores for children in the higher cognitive range: for example, Subject 27 with 13 Undifferentiated, Subject 16 with 11. These exceptions to the group trend and their possible interpretation will be discussed later.

As indicated in Table 4 , Affect Mean (overall affective expression in the drawings) and Age in months correlate at the .05 level. Affect Mean and Cogroup, however, are independent. It follows that there are no, or extremely low, correlations of Affect Mean and such variables as Treorder, Perlabel and Features 1 and 2. However, Affect Mean is inversely related at the .05 level to the total number of verbal comments--Verbsum. Table 11 presents the frequency distribution of Verbsum. For this sample of children the higher the Affect Mean score (and the more positive the tone of the drawings), the less verbal the child was likely to be. By contrast, neither Age nor Cogroup were significantly related to verbosity.

Table 10

Individual Affect Scores

Subjects arranged in Cognitive Order

Subject	Undifferentiated	Happy	Angry	Sad	Anxious	Surprised
1	19	2	2		1	
2	24					
3	9		12	1	2	
4	2	1	4		17	
5	21		3			
6	9	14	1			
9	1	23				
11	5	5	3	9	2	
14	4	20				
7	1	21	2			
8	18		5	1		
12	2	21	1			
13		24				
20	5	19				
21	8	15		1		
25	4	19		1		
26		24				
15	2	20	1			1
17	5	11	3	2	2	1
19		24				
22	4	19		1		
29	7	15		2		
24		20		3		1
27	13	9		2		1
10	4	20				
16	11	3	2	7	1	
18	6	18				
28		22		2		
23	2	15	1	3	2	1
30	1	15		5		3

Table 11

Frequency Distribution of Verbsum

Verbsum	Frequency
2	1
4	2
6	2
7	2
13	2
15	1
18	2
21	1
22	2
24	1
25	3
27	3
29	2
30	1
32	2
34	1
38	1
39	1
$\bar{X}$ = 20.70 Sd = 10.76	N = 30

Verbalizations

In examining the types of verbal comments, however, it can be seen that both Cogroup and Age, as well as Affect Mean, are associated with particular kinds of verbalizations. Table 12 presents the frequencies of the 9 possible kinds of comments the children made. Task-related comments occurred most, Appropriate comments least. (See Appendix B, Scoring Manual, for the definitions and examples of each type.) Table 4 indicates the significant relationships between the specific verbal categories and Cogroup, Agemo and Affmean. Thus, it can be seen that Cogroup correlates at the .01 level with Descriptive kinds of comments and (inversely) with Inappropriate remarks. The higher the cognitive level, the more likely the child was to describe the drawings and to do so accurately. Age was an even more powerful predictor of both these trends, $p = .001$. Interestingly, Cogroup was not associated with Cognitive kinds of comments, while such comments tended to decrease with Age, $p = .01$. Assuming that thinking is less fully internalized in younger children, they may have more of a need to "think" outloud--to verbalize the cognitive criteria which guide, and are reflected in, their productions. Fewer cognitive comments by older children may represent the more structured, integrated nature of their cognitions: With increasing age, these organizing principles are more fully internalized and become more automatic and unconscious.

While neither Cogroup nor Age were related to Affective or Fantasy comments, Affect Mean was inversely correlated with both at the .05 and .01 levels, respectively. Both kinds of comments also decreased with an increase in the expression of Positive Affect. Conversely, the more

Table 12

Frequency Distribution of Types of Comments

Number of Comments	Aff	Cog	Funct	Desc	Fam	Fant	Task	Inapp	App
0	8	9	10	5	14	16	2	17	21
1	8	5	5	1	6	2	3	6	6
2	3	1	5	3	6	5	1	4	2
3	3	4	4	7	3	3	2		1
4	6	4	1			1	5	1	
5	2	2	2	1		3	4	1	
6		2	3	6	1				
7		1		2			2	1	
8				1			2		
9		1		3			4		
10				1			2		
10		1					3		
$\bar{X}$	1.90	2.83	1.97	4.27	1.10	1.33	5.87	1.00	0.43
SD	1.71	3.02	2.03	3.08	1.40	1.73	3.88	1.63	0.77

Types of Comments Key:

Aff: Affective

Cog: Cognitive

Funct: Functional

Desc: Descriptive

Fam: Family

Fant: Fantasy

Task: Task-related

Inapp: Inappropriate

App: Appropriate

negative and/or undifferentiated the affect in the drawings, the more the children tended to make affectively-charged remarks and to engage in fantasies. These fantasies were either directly related to the drawings or expressed some overriding preoccupation of the child's. In addition, Affect Mean correlated negatively with Cognitive comments at the .01 level. Affect Mean was a better predictor of such comments than Cogroup. Like Cogroup and Age, however, Affect Mean was also inversely related to Inappropriate comments, $p = .001$.

Finally, as Table 4 shows, there were no significant relationships found between either Age, Cogroup, or Affmean and comments pertaining to Functional (contextual), Family, Task-related, or Appropriate aspects of the drawings. These findings suggest that such comments are largely a result of individual differences which cannot be characterized in terms of group trends.

Identity-Questions

The three questions pertaining to identity-issues--Name, Gender Constancy, Identity-Awareness--were also subjected to statistical analysis. Tables 13, 14, and 15 present the frequency distribution for each question. It can be seen that 22 children (almost 75%) understood that their name was separable from their identity: Identity was conserved despite a change of name, an external referent. Four children were uncertain as to the effect of a name change and were in a transitional phase in regard to the concept. Four children believed that a change of name would mean that they would be different people.

Gender Constancy was even more firmly established than awareness of the arbitrary nature of names. Twenty-six children knew definitely that

Table 13

Frequency Distribution of Name

Name	Frequency
1	4
2	4
3	22
$\overline{X}$ = 2.60 SD = 0.72	N = 30

Table 14

Frequency Distribution of Gender Constancy

Gender Constancy		Frequency
1		-
2		4
3		26
$\overline{X}$ = 2.87	SD = 0.34	N = 30

Table 15

Frequency Distribution of Identity-Awareness

Identity-Awareness	Frequency
0	5
1	8
2	5
3	1
4	6
5	3
6	2
$\overline{X}$ = 2.60 SD = 2.18	N = 30

they could not change their sex. Although four children were less certain (one, aged 8, had heard about a sex-change operation), none of them stated categorically that they could be the opposite sex if they wanted to.

Two children, Subject 3--one of the youngest, and Subject 19--one in the older range, were transitional in terms of both Name and Gender. These children also obtained the lowest possible score on the Identity-Awareness question: 0 = "Don't know." All the other children were certain (i.e., correct) as to either Name or Gender, or both. Several of the children who were transitional on either Name or Gender, such as Subjects 2, 11, and 23 (representing a broad range of subjects in terms of age), also scored low on the Identity-Awareness question: 0, 1, or 2. However, it did not follow that children who scored high on both Name and Gender also achieved high Identity scores. For example, both Subjects 4 and 16 scored 0 on Identity despite correct Name and Gender responses. Similarly, some of the children who recognized that changing their name would not change who they were, nevertheless, responded to the Identity-Awareness question by stating that they know who they are by their name.

It was hoped that these three variables--Name, Gender, Identity, expressed as a 3-digit number--might be condensed into a hierarchical scale reflecting different degrees of maturity of the identity-concept, similar to the scale of cognitive maturity represented by Cogroup. However, it appeared that there was no consistent relationship between the questions. Spearman Correlation coefficients confirmed the absence of statistically significant intercorrelations. It would seem that each

question taps an independent area of identity-consciousness which develop at different rates and which cannot necessarily be intercoordinated in an orderly fashion. In addition, methodological and conceptual problems in framing the questions may have obscured potential interactions. These issues will be explored more fully in the discussion.

Spearman correlation coefficients were calculated for each of the three questions in relation to all the other variables. Cogroup correlates with Name at the $p < .05$ level and with Identity at the $p = .01$ level. Tables 16 and 17 present relationships between Cogroup Scale and the Identity-Awareness ratings. It can be seen that although Identity scores tend to increase with Cogroup level, this relationship is by no means perfect. While it is likely that a child (e.g., Subject 30) who attains the highest Cogroup level of 9 will also attain the highest Identity-Awareness level of 6, this is not always the case. So, for example, Subject 16 has a high Cogroup rating of 7 (which includes the capacity to conserve) and yet scores 0 on Identity-Awareness question.

Age was also significantly related to Identity at the .01 level, and to Name at the $p < .01$ level. Gender, however, was not significantly related to either Age or Cogroup. In fact, the only significant result obtained for Gender was an inverse correlation with Family comments at the $p < .05$ level. For this sample of children, except for the few transitional cases, gender constancy was well-established and, therefore, was fairly consistent across all variables.

Both Name and Identity-Awareness were positively correlated with Sum F1 at the $p < .05$ level. Only Name, however, also correlated with Sum F2, $p < .05$. There was some relationship, therefore, between

Table 16

Cross-Tabulation of Cogroup by Identity-Awareness

	Identity-Awareness						
	0	1	2	3	4	5	6
Cogroup							
1	2	2	2		1		
2	1		1				
3		5	1	1		1	
4	1	1			2	1	
5							1
6					1		
7	1				1	1	
8					1		
9			1				1

Table 17

Categorized Identity-Awareness by Cogroup

		Identity-Awareness 0-2	3-6	
Cogroup	1-3	14	3	17
	4-9	4	9	13
		18	12	

$\chi^2 = 6.16$

$p < .01$ one-tailed

Features which were associated with "personal" aspects of self-definition and these two concepts. Conversely, Features related to general life-stage but "external" to the self correlated only with another external aspect of the self--i.e., Name. A high score on both Identity and Name also correlated positively with Treorder at the $p < .05$ level of significance. Only Identity, however, correlated with Affect Mean, $p < .05$. This finding indicates that just as there is a general group trend for age, cognitive level and positive affect to increase together, so does the child's conscious ability to reflect on, and articulate, identity-feelings.

Sex Differences

Finally, the data was examined for any relationships between the subject's sex and any of the other variables. There were a few general trends discerned, significant at the $p < .05$ levels. As a group, girls tended to score higher on the Identity question: Whereas three girls achieved a score of 5 and two achieved a score of 6 on Identity-Awareness, none of the boys scored above a 4. Girls also made more Family-related comments and fewer Task-related comments than did boys, and had fewer Undifferentiated Affect scores than boys.

Evaluation of Hypotheses

The relevant results in relation to the three hypotheses are as follows:

Hypothesis 1: Children undergo significant changes in their sense of identity during development from both a qualitative and quantitative point of view.

There were many significant correlations to support this hypothesis. The intercorrelations between different cognitive measures, leading to the formation of Cogroup, a scale of cognitive maturity, express both quantitative and qualitative changes in the sense of identity. Further associations between Cogroup and Age, and between these and a variety of other variables derived from the drawing task--Treorder, Features 1 and Features 2, Perlabel, Heights of Figures, and Undifferentiated Affect, from verbal comments--Cognitive, Descriptive, Fantasy, and Inappropriate, and from the Identity-Questions--Name and Identity-Awareness--offer additional support for the hypothesis. The changes observed in these variables and in the interactions between them define significant group trends. These trends, and the exceptions to them, highlight the changes in the mental-image, object-relations and identifications which underlie the construction of identity.

Hypothesis 2: There will be a significant relationship between affect and cognition in the development of identity as displayed in children's drawings and related comments.

The findings that Cogroup is significantly correlated with several other variables, such as Features 1 and Features 2, Heights of Figures, Undifferentiated Affect and Identity-Awareness, support this hypothesis. In addition to qualitative observations, these results suggest that there is a functional and structural relationship between affect and cognition in the formation of identity.

The assumption that Cogroup and Diversity of Affect would be significantly correlated was not confirmed.

Hypothesis 3: There will be significant differences in terms of age in the child's ability to abstract the essential operations necessary

for conserving identity, for conceptualizing the future while integrating past and present aspects of the self, in the sense of identity.

Significant correlations between Age and Cogroup, Treorder, Features 1 and Features 2, Perlabel, and Height, were observed which support this hypothesis. (Cogroup was even more strongly related to Treorder, Features 1, and Perlabel than Age.) Additional correlations between Age and Name, and Age and Cognitive comments, also support this hypothesis. These results highlight the role of symbol formation and use, the distinctions between actions and objects, immediate perception and cognitive operations, and the interrelatedness of conservation and identity.

Chapter V

Discussion

This section will discuss the implications and interpretation of the quantitative results in conjunction with relevant qualitative findings. The data provide an enormous amount of information about each child individually in terms of emotional dynamics and cognitive functioning. The drawings alone serve as an important source of personality assessment and analysis. For the purposes of this discussion, however, only those clinical observations which pertain to identity development in general will be addressed. These include individual behaviors which highlight or differ from some aspect of an overall group trend, as well as qualitative details not yet examined but related to identity-issues. Thus, the particular quality of the children's responses provides a sense of the richness and complexity by which these issues manifest themselves. Within the overall trends discerned, each child constructs a unique pattern of personal identity expressive of his/her particular affective relationships and cognitive experiences. Obviously, the real child is never as "orderly" as the arrangement of the data indicates.

The discussion will follow the general order of presentation of the results section. It is hoped that both the interactions and individual significances of the variables will become clear.

Cogroup

The results indicate that the Cogroup Scale is a meaningful measure of each child's overall cognitive level. By condensing the three

variables--Conservation, Picture Stage, and Picture Structure--Cogroup provides an orderly arrangement of complex, interrelated cognitive structures and functions. Each child's performance can be ranked on the Scale and compared to the group as a whole, as well as to other children in the same rank. Based on Cogroup rank, assumptions can be made about other behaviors, such as a child's capacity to seriate, the use of identifying features, and the ability to recognize and differentiate emotional states. The particular ways in which all these factors interact offer insights into the unique patterning of each child's experience. This information is essential to an understanding of the child's sense of identity and the underlying mental image.

It should be clear that these psychological constructs, the sense of identity and the mental image, are not considered equivalent. The mental image is largely unconscious and is inferred from the individual's behavior. The drawing is presumed to reflect the internal image; the image, comprised of cognitive and affective elements, guides and structures the form and content of the final production. Identity, in its generic and personal aspects, is an expression of this fundamental image. Identity may therefore be both consciously or unconsciously experienced. The degree to which the sense of identity can be consciously reflected on and articulated is dependent on the cognitive level and affective organization.

While Cogroup derives mainly from concepts informed by Piagetian theory, the cognitive achievements involved can be understood in psychoanalytic terms as well. The changes in intellectual functioning represent progress in the development of the ego--advances in secondary process

thinking, memory, judgment, accuracy of perception, and reality-testing. Viewed in regard to both developmental and psychoanalytic perspectives, the Cogroup Scale reflects the gradual transition from global, primarily subjective, affect and/or action-dominated thought, to more rational, objective, differentiated and reality-oriented thought. The various components which constitute Cogroup tap different but overlapping areas of functioning which, when combined to form a single value, reflect the manner in which these functions develop both individually and conjointly.

Thus, the Cogroup Scale represents the interrelationships of the following phenomena:

1) It indicates the child's ability to perform the mental operations necessary for the conservation of matter, to engage in the processes of reversibility and compensation, to anticipate and transform mental images. As has been discussed, this achievement is dependent first on the construction of the permanent object and secondly, on the further development in cognitive structures essential to the maintenance of objective identity despite changes. The child who is capable of conservation has a fuller understanding of the invariant features of objective reality and can apply this understanding to the concept of the self.

2) It reflects significant aspects of the content and form of the child's mental image at different stages in development. The categories of Picture Stage are comprised of the dominant emotional preoccupations and intellectual level of the child, including the capacity to select, synthesize and organize experience into meaningful related wholes. What is important to the child--both affectively and cognitively--is seen

to differ at each phase and, therefore, indicates progress in psychic organization. The Scale indicates the child's advances in integrating new experiences and modifying the conception of subjective and objective reality.

3) Finally, Cogroup represents the changes the child makes in structuring and understanding spatial and geometric relationships. Each level entails progress in the recognition of the objective and perceptual properties of objects and their coordination and interrelationships. Advances on the Scale reflect an expanded understanding of objective reality which can be generalized to a more mature understanding of the self. The child's increased comprehension of the structure and organization of external reality parallels changes in internal organization.

The formation of the Cogroup Scale shows how these three broad areas of psychological functioning interrelate. The findings demonstrate that although they advance in an orderly fashion, they do so at different rates and in different combinations. The following examples underscore the fact that while the results show definite group trends, much individual variation occurs. The main effects may give the impression of a single, simple pattern of development. The qualitative differences, however, demonstrate the numerous ways children construct their understanding of themselves in the course of this development.

As noted previously, while 17 children fail to conserve, they are at different levels of development in terms of Picture Stage and Picture Structure. And while Age is related to Cogroup, there is no one-to-one correspondence. Thus, Cogroup 3 occurs throughout the age range: represented, for example, by Subject 7, age 55 months (4.7 years), Subject 13,

age 66 months (5.6 years), and Subject 26, age 95 months (7.11 years). While the eight children in Cogroup 3 cannot conserve, they are all in the middle rank for overall stage and structure. It can be seen (Table 1), however, that despite the same cognitive category, individually these subjects vary in affective expression, the use of features, and the capacity for self-reflection--e.g., they range from 1-5 on the Identity-Question.

In addition, it was observed over the entire sample that children cannot achieve the highest Picture Structure level unless they have also begun to understand conservation. This accomplishment signals their entry into the stage of concrete operations. Both conservation and the attainment of Picture Structure 3 depend on the ability to take into account and coordinate the various objective and perceptual properties of objects. By contrast, a child in Picture Structure 1 ignores essential features of an object and similarly fails to conserve. Thus, for example, the child observes the "boundedness" of both a circle and a square, but overlooks the angularity of the square and draws both geometric objects as closed (circular) figures. At this stage, the child also attends to only one aspect of the transformation of an object (e.g., clay shaped from a ball to a sausage), noting length but not compensating by width. It is possible, however, for a child to move into Picture Structure 2 (beginning Euclidean and Projective awareness) prior to being able to conserve.

In terms of Picture Stage, almost two-thirds of the children attain the level of logical realism--3. Their ages range from 55 months (4.7 years) to 99 months (8.3 years). This finding coincides generally with

Luquet's observations. Although his age range for this stage is slightly younger--approximately 4-8 years--he emphasizes that these are not rigid limits and that the phases overlap. The children in Picture Stage 3 are dominated by conceptual criteria: what they "know" about objects and people. Interestingly, these children cover the entire range of Conservation scores, from total failure--Subjects 7 and 25, through the transitional phase--Subjects 15 and 29, to the highest level of reasoning--Subjects 10 and 28. A child must achieve at least both Picture Stage 3 and Picture Structure 2 to be able to conserve.

By contrast, none of the nine children who achieved Picture Stage 2, failed realism, were able to conserve. These subjects ranged from age 43 months (3.7 years) to 68 months (5.8 years), extending higher than Luquet's findings--2 1/2 to 4 years. Only two children, Subjects 23 and 30, attained the highest scores in all three categories and therefore achieved a Cogroup of 9. While both of these children also had high Treorder and Sum F1 and F2 scores, they differ in several important respects: Heights, Name and Identity scores. These findings again point up the distinctive nature of each child's performance.

Although the final Cogroup Scale does not reflect variations in Picture Stage and Picture Structure within the 24 pictures for any one child, such variations did occur occasionally and were noted in the original scoring. That is, a subject might achieve Picture Stage 3 for three sets, but some pictures of the fourth set might be categorized as Stage 2. Such behaviors were observed in eight children, from the youngest through the oldest ages. Six of these subjects showed variations in both Stage and Structure, usually within the same drawing. These behaviors

indicate that the child was in transition from one level of psychic organization to another, either entering a new phase, or, "regressing" temporarily to a previous one. They may be interpreted as reflecting the gradual "modification of type" which occurs, according to Luquet, as the internal image changes. These children are apparently undergoing a process of structural reorganization due to continued assimilation and accommodation of new knowledge and experience. They have yet to establish themselves firmly in a new cognitive stage.

An important affective dynamic may also be at work here since the children tend to show the most variation in the Self and Experimenter conditions. Presumedly, the image of Mom and Dad are more "fixed" than the changing Self in the child's experience and are, therefore, more consistently drawn. Similarly, Mom and Dad are more familiar than the Experimenter. For a child to imagine an adult as ever being other than an adult is often difficult; it seems inevitable that this would be even more the case when so little is known about the person (i.e., there are no stories, photos, etc.).

Finally, it was interesting to observe that several of the children quickly recognized the sequential aspect of the drawing task. They could remember and anticipate, with varying degrees of accuracy, the next life-stage to be drawn. This became important in regard to their later ability to reorder the drawings. It reflected their understanding of both the changes and underlying continuity involved in the figures drawn. One subject, 27, exclaimed with sudden recognition, "We're doing my whole life-cycle!"

Treorder

As was expected, the results show that the capacity to reorder the drawings is highly related to the combination of several factors--the child's age, cognitive level, and use of identifying features. These findings are consistent with Piaget's observations of the development of the capacity to seriate. Like the conservation of matter, seriation is a hallmark of the concrete operational period, indicating the child's increased ability to engage in logical operations. The ability to order the drawings correctly requires that the child "introduce continuity into a discrete world" (Voyat, 1982, p. 27). The child must recognize distinct conditions or events as well as the relative continuity amongst them. This depends on the mastery of the operations of reversibility and coordination, and the capacity to compare and classify objects or events and relate them to each other in a series differentiated both spatially and temporally. While the use of external referents like Sum F1 and F2 should aid in the process of ordering events such as graphic representations, it is not necessarily sufficient to ensure success. This is evident in comparing the children's performances.

According to Piaget, true seriation does not occur until about 7 years of age. Its development proceeds in a fairly regular fashion from failure to seriate (age range 4-6), through a transitional period with success based on trial and error (4-6 years), ending with the establishment of a systematic operational method of seriation (6-7 years) (Voyat, 1982). The 30 children in this study conform generally to these criteria. Total success (16) in reordering all the pictures in each set is achieved first by Subject 21, age 85 months (7.1 years). Although

this subject was unusual in that he was not also able to conserve, he used a large number of identifying features (score 39) which assisted him in differentiating life-stages and in ordering them appropriately. Prior to this age, however, the children show varying degrees of accomplishment in seriation. This includes the occurrence of a relatively high score (12) by Subject 10, age 59 months (4.11 years). As was noted, this child achieved an atypically high Cogroup score--7--for his age group. His good performance on Treorder can be related to two factors: his ability to conserve which demonstrates a beginning understanding of concepts involving concrete operations, and his reliance on differences in the heights of his figures as an organizing cue.

Generally, subjects in the lower Cogroup range, e.g., 1 to 3, who were unable to conserve (except Subject 21 as noted), had difficulty on the reorder task. Some of these children, especially the youngest, did not appear to understand what was being asked of them. Subject 3, for example, first started to fold the pages and then arranged them in a neat pile. Others simply spread them all out on the table or gathered them into a pile. Attempts to vary the language of the instruction, e.g., "Put them the way they should go in ime," etc., had no effect on these behaviors. The concept of seriation was absent, and putting things in order seemed to mean "making things neat" or were the child's attempts to cooperate in some way with the request of the experimenter. The most advanced of these non-conserving children, such as Subjects 7 and 12, could not rearrange the actual drawings but had some success in pointing to the appropriate figure when asked "Which comes first, which next, etc.?"

Unless they differentiated their drawings in some way, by height, clothing, context, these children tended to fail or do poorly on the task. Even an older subject, 26, did not do well. She neither used distinguishing features (except for some variations in hair length), nor could she conserve. Other preoperational children fared a little better by including items which helped them make some discriminations on reorder. For example, the Baby and Now conditions were frequently differentiated from other figures and allowed for some correct arranging of drawings. Such partially correct seriations correspond to Piaget's descriptions of the child's first attempts at ordering items: They may see the relationships between two isolated events, but are unable to coordinate a whole group.

Children who appeared to be in a transitional phase in regard to conservation also varied in success on seriation. Here again, identifying features often helped. Subject 22 in Cogroup 4, for example, used enough detail in her figures to assist her in achieving an almost perfect Treorder score--15. Children with Cogroup scores of 5 and above, e.g., Subjects 27 and 30, generally did well on Treorder. They were able to conserve and their drawings approached visual realism and were highly particularized. On combined Sum F1 and F2 they achieved scores of 46 and 57 respectively.

The results on Treorder highlight the child's gradual transition from the use of static to transformational images as described by Piaget (1971). Imagining and reproducing fixed conditions occurs earlier than the production and manipulation of anticipatory images. The children who succeeded at the reorder task understood the transformational aspects of

objects. They could detach themselves from the immediate perceptions and integrate the past and projected future images of the figures drawn. Thus, when it came time to reorder the drawings, they recognized the inherent continuity and identity. They could relate the drawings to each other in sequence rather than viewing them as isolated states.

This aspect of the children's behavior has been discussed primarily in Piagetian terms. Psychoanalytically, the cognitive behaviors described are considered functions of the ego, involving secondary-process thinking. The ability to evoke and cathect images, to translate them into graphic representations and then recognize them accurately, relies on the increased differentiation and elaboration of the ego. As effective experience becomes more structured and coherent, the child understands that a single object may express itself in many different ways and conditions. The same person may appear different at different times--the different representations constitute different aspects of the same person, not several different people. The child who understands this can unify multiple representations of an object or person and recognize their essential integrity. This is basic to the formation of the earliest object concept and object constancy. Just as the infant learns that Mommy-loving and Mommy-angry are different aspects of the same Mommy, so these older children recognize the continuity of identity in the different images of the figures they have drawn.

Perlabel

It would seem that correct labeling of each set of six drawings as to person would be one of the easier tasks for the children. They were

handed one set at a time and there were only four possible choices they could make. With the presentation of each remaining set, the choices were more limited and ought to have become even easier. Nevertheless, the findings indicate that many children indeed had difficulties. The reasoning they used for their choices revealed some interesting dynamics.

First of all, children who had difficulties conceptualizing and drawing the various figures to begin with were bound, of course, to have trouble recognizing them later. Although the Perlabel task required that they simply name the person drawn and not have to identify life-stage or situation, if the initial drawing task was a problem, inevitably the labeling task was also. A child who had difficulties imagining a particular life-stage--e.g., Old age--was not likely to distinguish this condition as to person as well. The drawings of the Self or Experimenter Now and of the Self as a Baby might be thought to be the simplest to execute. The former involve copies of immediate perceptions, graphic imitations of perceptually present objects; the latter consist of "deferred evocations," the memory of actual experiences internalized as images. If the children could draw these figures and then recognize them later, it seemed that they ought to be able to correctly label these two sets entirely--Self and Experimenter. This presumes that they understood that each set they drew was of <u>one</u> person only, in different phases of development, and that this fact was primary. Even if they had trouble with future images of themselves, they might have generalized from the Now condition that the rest of the set was Self.

For some children, however, several important factors interfered with this process: confusion of symbol and reality, the lack of

differentiating features to aid recognition memory, and/or the failure to understand the original nature of the task--only one person constitutes a set. These tendencies hampered their ability to distinguish accurately the people in the drawings. For example, children who failed altogether to label any of the sets correctly or who labeled some, but not all, appropriately, used none or very few identifying features and showed lapses in their capacity to differentiate their drawings from the actual people they represented. They consistently failed to recognize the distinction between sign and signifier, and image from object. Thus, some subjects, like 3, 5, and 6, labeled figures of the same set as "Mommy, me, grandma," etc. or made up fantasies about the figures as if they had no recollection or comprehension of what the drawings entailed. The figures were viewed as isolated images with no sense of their interrelatedness.

Other children, for example, Subjects 1 and 2, labelled all the drawings "Me" explaining, "They are all me because I drew them." Their reasoning reflects a blurring of the distinction between actions on objects and the objects themselves, a behavior described by Piaget as typical of very young children: objects as extensions of the actions by which they become known. "Who this is (represents)" became confused with "Who drew this." Although these children were aware at the time of drawing who the figures represented, they now grouped them all together as "my products" and therefore as "me," rather than "my representations of another person." These children express, in the most global sense, the idea that an individual's drawings all reflect some aspect of the self.

Not all of the children who had difficulty on this task were in the youngest age range. For example, Subjects 25 and 26 also failed to label drawings correctly, while Subjects 19 and 20 did only slightly better. However, these children shared some important qualities. For example, most of them were in the lowest Cogroup ranks, 1-3, and were unable to conserve. They could not retain the concept that each set represented one person in a variety of transformed states, not a lot of different people or, conversely, all "me." Many of these children used few identifying features and scored poorly on Treorder as well. In addition, several demonstrated uncertainty as to the arbitrary nature of their own names on the Name question. Here again they confused a sign with what it represents. Even Subject 19, who differed by scoring high on Treorder and Sum F1 and F2, showed confusion on Name and Gender and scored 0 on the Identity-Question.

By contrast, children who correctly labelled all the figures, such as Subjects 18, 23, and 30, tend to be higher on the Cogroup scale, use many differentiating features, and do well on the reorder task. The exceptions to this group are Subjects 7 and 12 whose accurate labeling of figures is probably a function of Features cues since neither of these children can conserve or seriate: They recognize figures individually but not in sequence.

From a discussion of this data it is clear that there is no one criterion which determines accurate recognition and labelling of figures. Although the group trend is for the ability to label to increase with Cogroup rank, it should be evident that several other factors interact to influence performance. The examination of individual differences

again underscores the complex and various ways these factors interact. The same overt behavior may point to different underlying determinants whose meaning can only be fully assessed in relation to other behaviors.

Features 1 and 2

The results indicate that the presence in the drawings of personal and contextual features--F1 and F2--tends to increase with the child's age and cognitive level (as represented by Cogroup). The group trends also show that these features are important cues in the ability to re-identify and reorder the people in the drawings. It seems clear that the use of such features to discriminate particular individuals and/or life-stages reflects the degree of internal differentiation and elaboration of the mental image, whether of the self or others.

The Features categories highlight aspects of identity-formation associated primarily with distinct psychosexual and psychosocial developmental phases: They are not intended to cover all aspects of the child's unique personal identity. Each drawing offers numerous interesting "features"--such as developmental items and emotional indicators as described by Koppitz (1968)--which together provide the basis for extensive personality and diagnostic assessment of each child. However, only those features which relate primarily to the issues of generic identity and the general construction of identity as a whole will be focused on here.

This part of the discussion will examine the implications of F1 and F2 as they pertain to the following topics:

1) as indicators of the child's level of self-awareness and the general nature and complexity of the mental image;

2) as signs of recognition of the changes wrought by the passage of time as well as of the persistence of certain characteristics; and

3) as representations of significant identifications with others and of observable moments in the process of separation and individuation.

Since an exhaustive examination of each of these issues cannot be attempted here, the most relevant group findings and select individual examples which best illuminate these issues will be presented and explored.

Only four of the 30 children did not use any Features 1 or 2. Three of them, Subjects 2, 5, and 6 are in Cogroup 1. Their drawings are the basic "tadpole" figure as described by Luquet (1927). The only distinguishing attribute they used is variation in the size of their figures. Subject 11, who also did not use any features, attained a Cogroup 2 because the structure of his figures was slightly more advanced than the others. It can be inferred that the underlying mental image informing each of these children's drawings is quite global and unarticulated. The image of the self and others is dominated by the general importance of the head and gross anatomy (either arms or legs). Other details are either ignored or not sufficiently incorporated yet as important aspects of self-definition. Subject 2, for example, does not include any facial features at all. While these children clearly have a more developed awareness of their body-image than an infant has, their graphic representations are quite simple. They have selected, in line with the observations of Luquet, Piaget, Kopptiz and others, those elements most essential to their conception of the human figure. Although their drawings are "primitive," they nevertheless reflect the abstracting, organizing, and synthesizing principles at work within the child. What appear as

relatively crude graphic images are, nonetheless, the product of complex psychological processes. These children, having progressed beyond the sensorimotor stage, demonstrate the directed, coordinated activity which allows them to represent symbolically internal schema. Their interpersonal experiences, intrinsic to the idea of the self and others, are projected into the drawings.

Thus, the head is always included (in normal development) because it is the "center"--of ego functions, intellectual mastery, motor control, interpretation of sensations, as well as being a primary focus of contact and communication between the self and others--the "social face" or "interface." Similarly, gross movement and engagement with the world is experienced primarily as a function of the limbs. The child is also careful to note this. These subjects represent the self and all others based on this fundamental image: Neither structure nor details vary significantly over time. The attributes and characteristics which particularize individuals, differentiating one person or type from another, are absent. The conscious depiction of the self and awareness of identity are dominated here by generic rather than distinct personal aspects.

Features 1

The remaining 26 children used from 1 to 57 features (F1 and F2) each. Although personal features (F1) occurred alone, context or situation features (F2) were only used in conjunction with F1. Both types of features appeared throughout the entire age range, increasing with Cogroup. However, personal features occurred almost eight times as frequently as context features (a total of 416 F1 to 55 F2). Thus, a

child was much more likely to distinguish a figure or life-stage with features which seem intrinsic to the person: "ego-referents," such as hair-style, clothing, jewelry, etc., were more frequent than features considered more external--other people or objects in the environment associated with the central figure. However, both types of features are strongly related to the child's sense of identity. Although F1 appears more intimately related to aspects of the self (e.g., indicating age, sex, personal preferences, ego ideal), the use of F2, especially in reference to the earlier stages of development and in the form of another person, constitutes an important element of the child's mental image, both of the self and of the other. The two categories of features--depending on the age of the child using them and the life-stage (Now, Baby, etc.) in which they occur--seem to suggest different degrees of internalization of, and individuation from, experiences with others. Features 1 cues are apt to represent more fully integrated aspects of the self. Features 2 cues may express aspects of identity which either are not yet unified with other self-representations, or are appropriately maintained as more external to, but meaningfully associated with, the sense of self (indicating, for example, social or work roles). The use of F1 cues will be discussed first, followed by an analysis of F2 cues.

The fewest F1 cues occur, of course, in the drawings of the least cognitively mature children, such as Subjects 1, 3, 4, 8 and 9. In these instances the child might include a single distinguishing feature, such as hair, in only one of the 24 drawings. Such a feature is too vague to differentiate the figure in terms of age or life stage: It

simply makes it different from the others in this one respect. (It should be noted, however, that these figures do not necessarily lack definition entirely. The figures of the Self Now and Mom Now by Subject 1 are indeed the most detailed of his drawings. In terms of developmental items, e.g., eyebrows, ears, etc., and emotional expression, these pictures are quite striking. They suggest the importance of the people they represent and the immediacy of the images. However, there are no cues to indicate the specific person or developmental stage.) Subjects 8 and 9 use slightly more specific cues, but again on only one to two of the figures they drew--e.g., Dad has a beard the the Experimenter has "rabbit-ear hair." The other figures are not distinguished by any significant features. Thus, these children not only use few F1 cues but use them only on one or two figures and fail to differentiate life-stage as well. Their drawings display the simplicity of type described by Luquet, only slightly more advanced than the pure "tadpole" people. There is little or no sense of the relationship between the various images, or of the representation of distinctive states. The occasional use of F1 in these instances appears to be largely a reflection of affective factors: as an expression of the intensity of the attachment to the parent as the most important figure in the child's life; of the egocentrism typical of this age--the child's natural involvement and interest in the developing self; or of the awareness of something about the experimenter that seemed dynamically important to them. (Several of the older children--both boys and girls--also focused attention on the experimenter's hair,

indicating concerns about sexuality and control, as well as emphasizing an apparently distinctive feature that was also fun to draw.) For these young children, although self and object are clearly distinguished and vague gestures are made to indicate person and gender, the dominant representation appears to be based on a primary image of the self. Identification with significant others is hard to discern except in the most global sense. They consist, for example, of general and gender-related characteristics: Females have more hair than males. There is little attempt to accommodate to an individual's distinctive features. Few of these children observed the experimenter while drawing her. Rather, they project the internal image they have gradually been constructing; this image predominates and is reproduced in each figure.

By contrast, as the children demonstrate advances in cognitive development, their use of Feature 1 increases and appears in more conditions and across all four people. This behavior also reflects their increased interpersonal experiences. Most are older and have more school and more contact with peers as well as with adults other than their parents. Their varied emotional experiences and enhanced cognitive skills have furthered the elaboration of internal structures and the corresponding capacity for more highly individualized and differentiated images of the self and others. These children begin to display features associated with a specific life-stage: i.e., swaddling, one hair or tooth, or tear-drops ("the baby's crying for a bottle") to indicate Baby, or wrinkles, a bun, or bald head to indicate Old. These developmental stages tend to be more dramatically delineated and are conceptualized in conventionally stereotyped ways. They are variations, in a sense, of Luquet's

generic type. The child selects what seems most representative of these states and repeats this feature in each set of drawings. This is the case with Subjects 12 and 15: Infancy and old age are discriminated from other life-stages but are the same across all people. There is no objective way of differentiating one baby from another except by set. They are all "generic" babies.

In addition, children of this middle Cogroup range vary in their ability to define the other intermediate life-stages. Imagining someone as a teenager was especially difficult. The concept itself is too vague for young children, who often group this phase with adulthood. Many children even had trouble with "Big kid," "Someone older than you but younger than your parents," etc. Inevitably, they found it hard--if not impossible--to differentiate a state which had little distinct meaning for them. Unlike some of the older children, they lacked even a stereotyped image to rely on.

Nevertheless, some of the children who drew all babies and all old people alike, showed distinct variation in their representations of people in the Now condition. This state, if any, tended to be the most individualized. The child's immediate image of the person was the richest in personal detail and meaning. Except for children who had general difficulties with the drawing task, drawing the Self Now evoked special interest and enjoyment. Parents were also drawn with authority and attention to detail. And the older the child was, the more curiosity there was about the experimenter as a distinct person and the more attempts were made to "copy" what she looked like. Thus, for example, Subject 12 shows some variation among her drawings: Size, slight changes in clothing

and hair length indicate general life-stage and person. But her picture of the Self Now stands out as unique: She has an elaborately braided hairdo and sports a large fanciful hat. Subject 22 is also able to give general definition to different figures. Dad Now cannot be confused with anyone else: He is clearly a man--his hair and clothes--and he has a fat belly which singles him out. Subject 24 distinguishes herself with a case of the measles. Subject 26 draws fairly distinct figures overall, but Mom Now is most easily identifiable: Curly hair and eyelashes, dress and high heels, stylishness and size--all set her apart from the other figures. (As will be discussed, this subject, like several of the others, also makes use of F2 cues to characterize particular people.)

As expected, F1 was related to general maturity. The children who used a large number of F1 cues, e.g., 30 or more, did so across all people and conditions. Attempts to differentiate each figure according to life-stage and person appeared throughout the 24 pictures and were not confined to a few single states such as Baby or Old. For example, Subjects 7, 23, 27, 28, and 30, used F1 cues as an essential part of the person. All of these children except for Subject 7 are high on the Co-group scale: 6-9. They show, in varying degrees, an understanding that each condition and person can be characterized by certain specific details or traits. At the same time, they demonstrated through the reappearance of a feature, or its slight modification, the recognition of the underlying continuity between conditions, and, therefore, of the identity of the person portrayed.

A typical example of this is the child's depiction of the individual's hair. Variations in length, abundance, and styling are an important

personal detail indicating the awareness of age, sex, gender--of a person's general image--at different points in time. The same child might identify a Baby with a single hair, a Teen or Adult female with a thick, full head of curly hair, an aging Daddy with hair thinning to eventual baldness, a Young girl with braids or hairclips, an Old woman with a bun, etc. Each modification reflects the child's conception of the changing person through sexual and social development in the course of aging. The appropriate use of a feature such as hair (including beards) in combination with other such features--like attention to clothing details and accessories (bib, earrings, pipe), or to activity or posture--make these drawings more distinctive than the "generic" images.

These more mature subjects are able to use both conventional, stereotyped features and highly individual, personal observations. They can incorporate both meanings in their drawings: the image of a developing person in general and of someone in particular. Thus, while a baby may have one tooth, a self-portrait has buck teeth. Mom doesn't just wear jewelry, she wears a particular necklace, a birthday gift (Subject 27). Or freckles distinguish the Self, extremely curly hair, the Experimenter. The details of a tee-shirt are carefully delineated on the Self Now: a furry animal--Subject 7, the school's name--Subject 23, a Lacoste alligator--Subject 27. These details are also interesting because they represent exactly what the child was wearing at the time of the experiment. These are not just drawings of the Self but of the Self emphatically Now, in the immediate present. Similarly, other children might draw themselves seated at a desk or with the experimenter in the picture (Subject 10) to indicate the actual moment of drawing. The use of F1 or F2 in this

manner conveys the occasional concreteness of the child's thinking in response to the request "Draw yourself as you are" or "as you are now" (in contrast to as you were when you were a baby, etc.).

In general, the richness and diversity of the images in the drawings of these children reflect their mental maturity and interpersonal awareness. People are not only viewed as separate from the self, but as different. Likenesses can be noted as well and comparisons made. These children have made marked progress in individuation in Mahler's sense. Their images of themselves and others are more articulated and better integrated than those of the others. They recognize the ways in which a person may appear different, yet still retain a basic "selfsameness." They are no longer tied to immediate perception and fixed images. They can imagine and express existing and potential aspects of the self and others. As defined by Voyat and Piaget (1968), these subjects can internally manipulate mental images, while maintaining a sense of inherent stability and continuity.

Features 2

As has been noted, Features 2 cues occur less frequently than Features 1 cues. Features 2 are used primarily by the older, more mature children. Only 13 children drew additional people or objects to indicate context or situation. Eight of them account for 75% of the F2 cues, and they are all in the oldest age range: from Subject 21, age 7.1 years, to Subject 30, age 8.11 years. By contrast, only two of the youngest children, Subjects 3 and 7, and three in the middle range, Subjects 13, 16 and 17, account for the remaining 25%. As with F1 cues, the older children tended to use F2 across all persons and conditions, indicating their

more sophisticated and acute awareness of the individual differences which define a particular identity and of the details of the surrounding environment.

It was of interest to note if there were any trends in the type of Features 2 used--person or object-place, and whether there was any relationship between a particular person or life-stage and the appearance of F2 cues. Overall, context features involving external objects or settings occur more frequently than the use of other people in the drawings. Dad and Experimenter evoked the most context features of this sort. When another person is drawn with the central figure, this is most likely to occur in the Baby and Walk conditions. The Teen condition elicited the fewest F2 cues of any kind. In addition, there seems to be a relationship (though not statistically tested) between a subject's age, the particular person drawn, and the use of F2 cues. Thus, the youngest children used F2 cues only in the drawings of the Self and Mom, while the three middle-range children used F2 cues only in the Dad and Experimenter drawings. Again, the older children used F2 across all persons. Finally, F2 cues could be differentiated in terms of the degree to which they are integrated into the personality or experienced as external to the self: In some instances they are an intrinsic part of the person's identity; in others, they are related but separable attributes.

As might be expected, the more mature children demonstrated their awareness of the object world by including relevant F2 details associated with distinctive persons and situations. Their figures are placed in settings appropriate to the age and life-stage of the person drawn: at work, in school, in a candy store, at a home for the elderly. Or they

are identified by features which are particular to only that specific individual: As a Teen, Mom wears a cast on her leg because she broke it skiing (Subject 27); Mom Now holds the phone because this is such a typical behavior of hers (Subject 22); Dad Now is pictured in his car (Subject 26). These F2 cues are used like emblems. They represent what is essential to the child's image of a particular individual, a fundamental apsect of a certain personality at a distinct moment in time. These features are recognized as external to, but strongly associated with, the person portrayed.

In addition, some F2 cues, in the form of objects, are used in a generic sense by subjects of all ages. Thus, cribs and cradles, canes and rocking chairs, appear repeatedly as indications of Baby or Old Age. Like the generic use of Features 1, these Features 2 cues distinguish life-stage but not person. They are generalizable, conventional signs for "Babyness" or "Oldness" rather than personal expressions of unique observations of character. They occur earlier than the slightly more individualized details such as the "basket-crib that belonged to my grandma"(Subject 27) or the spectacles or knitting needles of Old Age of Subjects 28 and 29.

Similarly, since the presence of other people occurs almost exclusively in the Baby and Walk drawings, this form of F2 might be viewed primarily as a generic indicator of these conditions. Thus, several of the children, e.g., subjects 7, 21, 30, draw a nurse, Mommy, or grandma holding the Baby, or one of the parents is represented assisting the toddler in walking. These drawings clearly display the children's general awareness of the infant's real dependence on others and the

importance of the "holding environment" to the infant. However, since only some of the children included such figures in their drawings and then, not necessarily across all persons, these images may hold additional affective significance in terms of separation-individuation issues. The adult in these drawings appears to be an essential part of the identity of the central figure. Since the significant object is not yet distinct from the self in the early phases of infancy, the presence of such figures in these conditions graphically represents this psychological state. The child conveys in this way the importance of the first attachment and the level of object relations during this period. For these children, imagining a Baby evokes the image of the other as well. The image of the Self as an infant includes the image of the other. It reflects both the emotional and practical interrelatedness of infant and caretaker prior to the establishment of an individuated sense of self.

It might be argued that for some of these children separation from the parent continues to be a very central issue. The significant other may not yet be sufficiently internalized in a way which enables the child to "stand alone." This is a developmental step which is not achieved all at once. Drawing these early phases of life may tap the unresolved, dependent nature of the child's tie to the primary caretaker (or may elicit the child's view of another person's dependent tendencies). For other children, it is possible that including other well defined figures marks a period of transition, i.e., an advance in the consolidation and integration of self and object representations to a new level of identity-awareness. It may represent a more conscious understanding that although the parents were very much present during the child's infancy--physically,

emotionally, psychically--they were, and continue to be, separate individuals. The use of such figures may thus be interpreted in a variety of ways, implying both cognitive and affective meanings. The absence of other people in almost all of the other drawings (of all 30 children) suggests the existence of a generally established sense of self as separate from others and the recognition of some distinctions between those others. However, although the outline of the body and the basic psychic boundaries have been constructed, the degree of detail and differentiation displayed in the drawings varies greatly. This depends partly on the child's progress in individuation and the consequent complexity of the internal image.

An interesting example of the presence of the "other" as part of the self-image occurs in some of the drawings of Subject 7, the girl of a pair of fraternal twins who participated in the study. It has already been remarked that this child was unusual for her age (4.7 years) in her use of Features 1 (Sum F1 score--35) and Features 2 (Sum F2 score--3). Although she had not attained the level of concrete operations (she could not conserve or seriate), her use of distinguishing features reflects her awareness of her environment and the people in it. She is able to differentiate her figures through details such as size, hair and clothing, as well as with objects--Dad's pipe, the Experimenter's pen, the generic cane of Old Age. Typical of the drawings in which another figure appears, Subject 7 also includes in Mom Walk the figure of her grandmother holding her toddler's (Mom's) hand, and in Self Baby, she adds the figure of her own mother. Even more striking, however, is the vague indication of the presence of yet "another" in several of the drawings of her Self. Thus,

in addition to the two distinctively drawn figures of herself as a Baby and her mother, she drew another circle (head-like) between them. This extra circle appears in her Self as an Adult and in Self Old; in the Self Teen, the beginnings of a circle are shaded over, and in the Self Now, the circle has become a flower. Since this subject can clearly delineate other figures when she chooses, and since the extra circle does not appear in any of the drawings of the other person sets (Mom, Dad, Experimenter), it can be assumed that this shadowy addition probably represents the presence of her twin brother.

Her brother forms a part of her self-image from birth. Like the primary caretaker, her twin was initially both a part of her environment and a part of her self prior to the distinction between self and object representations. In addition to the infant's experience of the symbiotic fusion with the mother--described as the "dual unity" by Mahler (1975)--this child and her brother probably also experienced each other in a similar way. For Subject 7, the establishment of separateness and individuation as a unique person involves not only the adult significant other but the "significant brother." Thus, her earliest image of her self partakes of the representation of her brother. Her drawings may be viewed as reflecting progress in individuation. What is being interpreted as a representation of her twin is a symbol, rather than a fully defined figure. She recognizes her brother as separate at the same time that her experience of him is becoming more fully internalized. He is a real object in her environment, while her relationship with him forms a strong basis for identification. She notes his presence in her psychic world in her drawings.

It is curious that in her picture of Self Walk there are no other figures present. It could be that this drawing represents her first "steps" toward individuation. As Mahler, Fraiberg, and others suggest, this achievement in movement has its parallels in psychological development. In learning to walk the child exercises new freedom and control in independent functioning; she is able to "distance" herself from others and experience her separateness on several levels--physical, cognitive, and emotional. The reappearance of the circle in the other drawings may then be understood in terms of her current cognitive level. While she can evoke an image of infancy, she has difficulty imagining future conditions of herself without the continued presence of this other as part of her self representation.

By contrast, it should be noted here that her brother's drawings are much simpler; they consist primarily of a large head and legs with only a few more details than the basic tadpole. They are rather typical of the early preoperational period and not unusual for his age. Unlike his sister, he draws no additional figures or shows evidence of related symbols. By comparison, his sister is more advanced. For her, defining her identity appears to be a central theme. This self-definition involves the continued exploration of difference and sameness, the consolidation of the boundaries between internal and external reality, and the refinement and integration of psychic representations through the increasingly sophisticated functions of the developing ego.

In general, the observed relationship between the subject's age, person drawn, and use of F2 cues, may be viewed in reference to progress in individuation. For example, since the young child's world tends to

center around the relationship with the primary caretaker, usually the mother, it seems probable that the drawings will reflect this: There will be a more defined image of the mother--or at least more attention focused on her--than any of the other adults drawn. Similarly it might be assumed that at this stage the Self is likely to elicit some distinguishing features since the child is becoming more aware of a separate identity distinct from the mother.

By contrast, the use of F2 cues in the Dad and Experimenter drawings by the children in the middle-age range--Subjects 13, 16, and 17--might reflect gradual movement away from intense involvement with the mother and increased interest in the larger world. While Dad may be a significant presence all along, the child is becoming more curious about the details of his life, e.g., his work, more conscious of the world outside home and day-care, and better able to represent these aspects of the environment. The Experimenter, too, as an object of the world beyond the mother-child dyad, evokes particular interest and attention. In terms of the attention focused on Dad, another explanation offers itself. The parents of two of these three children are divorced and the fathers live elsewhere. This may be the source of the concentration on Dad's figure. In this case, the child's behavior reflects not only expanding cognitive awareness but also the singular affective importance of Dad. Finally, the tendency for the oldest children to use Features 2 across all persons is consistent with their generally greater awareness of other people and objects and their interrelationships.

It should be evident that imitation and identification are involved in the selection of differentiating features, both 1 and 2. The child's

attempts to "copy" reality can be seen in the most primitive drawings. At first, dominated by assimilation, features are reproduced which "fit" the existing mental image, for example, of the human figure. Although Piaget suggests that the tendency to imitate is motivated largely by intrinsic pleasure in the act of repetition, it is clear that, even in the crudest drawings, what the child chooses to reproduce is influenced by its affective interest.

Where stereotyped figures predominate, assimilative activities are primary. The generic person-as-tadpole exemplifies this. Certain outstanding features are focused on, others ignored. The same figure is reproduced over and over despite changes in age or sex. No distinctive features--personal or contextual--are included to distinguish one person from the next. By contrast, the gradual use of such features reflects changes in the mental image due primarily to accommodation. As the child attends to and integrates new elements of reality the internal schema become modified. The drawings begin to include features which more accurately "imitate" perceived reality. These figures approach the "visual realism" of Luquet, expressing the specific identity of the model. The two children in the highest Cogroup, Subjects 23 and 30, demonstrate this.

Similarly, patterns can be discerned in the child's identifications--from the most rudimentary and global to the more particular and complex. As Freud (1923) suggests, the important object-relations in the child's life can be surmised from the character and strength of these identifications. Young children see themselves and others as similar in the broadest outlines. Their figures are more alike, overall, than not. While older, more mature children maintain the same general structure for all

figures, the defining details vary significantly. Emphasis on certain features highlight the important object-attachments and identifications. The use of distinctive features reflects the internalization of attributes and experiences central to their conception of others and integral to ego formation and the sense of self.

Thus, although Subject 18 does not clearly distinguish one female from another--e.g., Self, Mom, Experimenter--she uses features to distinguish one sex from the other. Gender identity and awareness of gender differences appear well established and delineated. Her experience of gender as a central and constant aspect of identity is manifested in each sequence. Her image of herself as an Adult woman is predicated on that of her mother: It derives from her image of her mother and her identification with her, as well as from her general notion of "femaleness"--both from her own experience and as portrayed by the culture. Although she does not yet differentiate between individual women, her "generic female" may serve an important organizing function, helping consolidate her notion of gender and strengthening this aspect of her self-concept. As Luquet and others have suggested, stereotyping may foster the integration and maintenance of the emerging self. As new experiences lead to transformations in psychic representations and structures, "modification of type" will occur, resulting in increasingly differentiated images. As with Baby and Old, Subject 18 has constructed images of Male and Female--identifications expressed as general types.

Another Subject, 13, drew herself Now wearing high heels. Like the child who imitates Mommy by dressing up in her clothes and trying to walk in her high heels, this child included in her drawing a fantasied image

associated with an ideal. She expresses her strong identification with her gender role-model, her wish to be grown-up, like her Mommy, to be in Mommy's shoes--and all that this represents to her. By contrast, Subject 24 made a point of stating that she wanted to draw herself wearing pants in all her pictures. She was, in fact, in pants at the time of the experiment. She expressed awareness of the expected stereotyped image of a girl and her resistance to identifying with it. This child made other comments indicating her reluctance to identify with her gender and sex-role and her preference for being like a boy. In general, the children's depiction of gender differences partakes of identifications with both particular persons and cultural stereotypes.

Several children graphically represented the wish to be like their parent--to look like them and take on adult behaviors and social roles. Admiration and, at times, idealization of the parents are apparent in the kinds of detailed attention paid to the figures of Mom and Dad Now. These attentions reflect the affective importance of the parents, as love-objects and role-models. In their representations of the Self as an Adult, the children often attempt to imitate these figures, drawing themselves very much like Mom and Dad. Both girls and boys may express this in terms of exact physical appearance: e.g., Subjects 18 and 30 draw themselves as attractive, sophisticated-looking women like their mother, while Subject 23 emphasizes his muscles in his drawing of his Adult Self. Subject 21 portrays his father fighting with the guys as a Teen, and Subject 16 draws his in combat uniform as an Adult. Aside from the aggressive implications of their drawings, these boys clearly view their fathers as models of manly behavior which they seek to emulate. The characteristics depicted, similar

to those observed by Kopptiz (1968), are essential to the child's ego-ideal and developing identity. They include attributes which represent the immediate self-concept, as well as behaviors and traits yet aspired to. Especially with the more mature subjects, the conscious sense of self involves both current reality and anticipated incarnations. Competence, physical attractiveness, imitating work, social, or parental roles--all are conveyed through the use of selected features. Similarly, negative attributes may also be included. It is often possible to trace the predominant features in the drawings to the child's identifications with others, including identifying with the parent's image of the child. Even primitive, global identifications are evident in the general tadpole figures of the youngest children.

In addition to the use of features as attempts to approximate perceived reality and represent individual characteristics, unusual or idiosyncratic Features 1 or 2 also occur. These often reflect a particular preoccupation or fantasy or the intrusion of intense affect stirred up by the drawing task. Subject 3 drew a long projection described as a tooth on several figures. This "tooth" served as a basis for elaborate fantasies which became increasingly removed from the immediate task. Although she attempted generally to follow the experimenter's instructions, Subject 3 was clearly engaged in an active fantasy which infused her drawings and appeared as features associated with oral-aggression and incorporation. Her images of herself and others were dominated by this theme.

Subjects 16 and 17 also added features expressive of overriding affective concerns. Their drawings retained the structural criteria and general content appropriate to age and Cogroup, but included rather singular

elements. For example, Subject 16 drew Dad Walk as "tripping over a pail of water," and Dad Now is placed in a war scene with helmet and cannon. His pictures of Self almost disappear off the paper. Self Walk shows him "on fire"--a portrayal of a childhood accident, and Self Old is a cartoony grotesque with "snot coming out of the nose" and the appearance of a "dragon." The task elicited intense emotional reactions in this subject which he was generally able to contain and direct and which are reflected in the details of the drawings and his accompanying comments. Both his object-relations and self-feelings appear in turmoil.

Subject 17 included some unusual features, such as a crown in Self Now, and also exaggerated other traits, especially sexual indicators. Her Self Now and Experimenter Now are both highly made-up and dressed-up. The Self figure is rather stylized and has a mask-like expression; the Experimenter has a cherry in her mouth and her breasts are outlined. By contrast, Subject 17 draws herself as an Adult as very fat and ungainly. Dad Old wears a dress. This subject's use of features suggests both highly libidinalized object-relations and sexual confusion. Concerns about sexuality, gender identity, appearance, and personal adequacy are central to her sense of self and find expression in her drawings.

Finally, the stylized or cartoon-like quality of a figure was considered an "unusual feature" although this does not necessarily indicate pathology. Rather, such figures were generally less common for the group as a whole. When they did occur, as with Subjects 17 and 27, for example, they were different from most of the sugject's other figures. Subject 27 drew and labeled a cartoon figure "bus boy" which he apparently had drawn before--a stock character of particular significance for him. Like two

flagpoles included in a drawing by Subject 17, Subject 27's "bus boy" has symbolic implications which were not fully explored with him. Nevertheless, these characteristics are worth noting as instances in which personal preoccupations and affective concerns dominate the child's images. The meanings are not immediately obvious. They certainly reflect a particular concern about the figure represented, whether intrinsic to some aspect of the self-concept or the image of the other.

Heights of Figures

As noted, there was a significant trend for older, more cognitively advanced children to draw more consistently-sized and smaller figures than the younger children. These findings conform to Koppitz's observation that, in general, although big figures are not rare between 5-7 years, by these ages children begin to draw smaller figures. By age eight large figures are unusual (1968). These results might be expected based on the development of hand-eye coordination and grapho-motor skills alone. Younger children, less physically coordinated, have more difficulty controlling fine movements. It might be assumed that their graphic representations would consist of gross movements and that they would have some trouble confining themselves to the limits of the page, unlike the older subjects. However, individual differences clearly demonstrate that sensorimotor skills by themselves do not account for variations in the size of figures. For example, both the youngest and the oldest child drew figures in the highest range for the entire sample: Subject 1 with a mean height of 69.50 and Subject 30 with a mean of 63.13. Subject 2, only 2 months older than Subject 1, drew figures almost half the size of those of Subject 1. It

can be seen from samples of their drawings that there are marked differences in the accuracy and detail of their productions. Obviously cognitive and affective factors are a major determinant of the size of the figures.

In reference to the group trends, an important difference between Subject 1 and Subject 30 is the variability of heights about the mean. Table 1 shows that Subject 1 has greater range (SD 24.89) in all 24 drawings than Subject 30 (SD 11.30). As indicated previously, this finding is true for the group as a whole. More consistently-sized figures are clearly a function of increased cognitive awareness of the relationship between age, or life stage, and growth or height. Older children in general recognize and are better able to portray the sequence of growth in terms of gradual gradations in size. By contrast, more of the younger and/or less cognitively mature children draw the figures out of sequence--e.g., the Self as a child is much larger than the Self as an Adult. Or, as is the case with Subject 2, although the figures show a general increase in size with age, there is no attention to the fact that a person's height may not change much from Teen to Old age.

These findings can be related to observations made by Piaget and his collaborators and described by Voyat (1982) in regard to the child's construction of the concept of time and the relationship between age and height. Their research indicates that the child moves from an initial failure to differentiate between age and size (at about 4-8 years), through a transitional phase (5-8 years), to a gradual understanding that age and size can be completely dissociated (between 7-10). Thus, Subject 2, for example, is entering the phase in which she believes that age and height

are codetermined: An older person is always large and a large person always old. By contrast, Subject 30, while demonstrating less variability in range, does not show an exact one-to-one correspondence between age-stage and increase in size. Since Subject 30 achieves the highest Co-group level, Treorder and Perlabel scores, it can be assumed that she has a fairly accurate perception of the relationship of age and size and that she is capable of dissociating them. Other children with high Cogroup scores, like Subject 23 and 28, have a similar understanding of the nature of growth, the passage of time, and the ordering of events. They realize that though the person in their drawings is aging, physical growth may have stopped. In reference to Voyat's descriptions, it seems that at first it is a cognitive achievement for the child to understand that growth and age are related; but it is a further advance to be able to recognize their independence and relativity. This progress is reflected in the group trend.

Additional interesting aspects of the heights of figures were observed in terms of the children's internal schema. Several children's figures decreased in size in the Old condition. Subject 10 explained this by suggesting that "People shrink when they get old" and described grandparents or other elderly people as "growing smaller." Both Subjects 27 and 28 also stated that "As you get older, you get shorter." These children are all 6 or above on the Cogroup Scale. For other children, conceptual and/or affective difficulties were involved in drawing older figures. Some subjects, e.g., 1, 3, and 5, could not graphically portray themselves, the experimenter, or their parents, as old people except as vague or small figures. Their problems were primarily cognitive. They could not imagine or

anticipate the appropriate image associated with this distant future condition. These children were unable to perform the mental abstractions and transformations necessary to conceive of a projected state which was a natural continuation of the person's generic identity-existence. Others expressed in their verbal comments their emotional reluctance and difficulty in drawing these figures: e.g., Subject 11, "I won't be an old man," "I don't know if my Mom will be old," etc. Although they seemed capable of imagining old age, they did not want to picture themselves or those close to them as old. Thoughts about being old evoked feelings of sadness, anxiety, and death. Thus, Subject 16 stated, "I don't want to be old....I don't like to draw that because it makes me sad." Subject 17 said, "I hate to draw Mom as an old woman because I love her so much and she might die. I wish everyone would live for a long time."

It should be noted that most of these children did not seem to be actually confusing fantasy and reality. They did not necessarily believe that drawing themselves Old was the same as being old. Rather they were actively engaged in the drawing task as a form of symbolic play which sometimes elicited charged thoughts and feelings. Usually these behaviors were phase-appropriate. They reflected healthy emotional involvement with the task and the experimenter and were attempts to master, through play, anxiety-arousing feelings.

In some instances, however, the intensity of the response suggested a blurring of the boundaries between image and symbol and reality, pointing to both conceptual problems and emotional resistance. These children did seem to confuse the act of drawing and the fantasy product with reality. Thus, some children had difficulty imagining the younger stages

as well as the older conditions and expressed this verbally or graphically. For example, Subject 14 insisted that his parents had never been babies or teenagers, etc.; his mother "was always a grown-up" and his dad "was always (my) Dad." Although with encouragement he drew all 24 pictures, he made it clear throughout that he could not, or did not want to, imagine his parents or himself other than as they are Now. In addition to his difficulties in handling the conceptual problem of changes occurring over time (he is in Cogroup 2), it was emotionally important to this child that his own and his parents' identity remain fixed and stable in the present.

As mentioned earlier, another affective determinant of the size of the figures is related to body and self-image. While the child may recognize the gradual transformations in size which take place due to growth and time, the overall size of the figure drawn may be consistently small or consistently large. Both Subjects 26 and 29 drew relatively small pictures. Although each child showed some differentiation of life-stage based on size--in fact, slight changes in size was one of the primary distinguishing features they used--their generally small figures imply self-feelings associated with bodily or emotional adequacy. While both of these children were individually engaging and expressed pleasure in the tasks and the contact with the experimenter, they displayed in their drawings and comments their sense of being "young" and "small." For example, one commented (giggling) that he was always scolded for being "bad" and had been told that he was "more mature as a baby than now." (Perhaps for him small drawings also represented an attempt to achieve that valued status again--i.e., a baby but mature.) Another mentioned

family problems which were worrying her and evidently made her feel small in a big world. Although diagnostic assessments of any of the children is not intended here, these examples are presented to highlight the influence of identity-feelings on figure size.

As indicated, big figures are not uncommon for young children. They appear to be a typical expression of enjoyment in gross body movements, less refined cognitive perceptions, and generally healthy narcissistic self-esteem. Big figures take on more distinct affective importance when they contrast with the rest of the figures a child draws. Large size then becomes a sign of the emotional significance an object holds for that child. Thus, if a child draws a particular person larger than all the others or exaggerates the size of a particular life-stage, these behaviors clearly have unique meaning.

For example, a range of children drew themselves Now as one of the biggest figures, sometimes as big or bigger than themselves or others in the older conditions. The immediate Now is the most real, the most important, and reflects, as well, the child's egocentrism in Piaget's sense. These preoperational children cannot yet view themselves from another's perspective. They do not objectively recognize their relative size in regard to others or some future image of themselves. Their drawings may also be interpreted as expressions of normal self-esteem: the child as his/her center of actions, emotions, and relations with others. In older subjects overestimation of the Self in relation to others may be a sign of grandiosity or of compensation for feelings of inadequacy. Clearly each set of drawings must be analyzed within the total context of the child's productions for a full understanding of the personal meanings that size has in terms of individual identity.

Oversized parts of bodies also may be viewed as emotional indicators when they are not phase-appropriate. Koppitz (1968) notes, for example, that big heads are quite common for children between 5 and 12 years of age. Very young children of the "tadpole" stage especially tend to draw big heads. However, in accordance with Machover (1949), a large head--"the center of location for the self"--may represent a particularly important aspect of the person's sense of identity. For example, Subject 27 drew himself in the Now condition as larger than all his other figures except those of his Mother and Father Now. In addition, the figure of himself was of his head and upper torso only. It was his only drawing which was not of the entire body. One other child, Subject 30, also drew only her head and upper body in the Self Now condition. There are two striking aspects to these drawings. For one thing, they are closest to the adult's traditional notion of a "self-portrait"--the face and upper torso. Since both of these children are in the highest age and Cogroup range, their Self Now drawings may be viewed as related to the self-portrait concept--the details of the face expressing the individual's unique character. Secondly, since both children are latency-aged, their drawings may also be seen as reflections of the increased focus on intellectual interests and cognitive pursuits typical of this stage. Additional concerns as to mastery of sexual and/or aggressive impulses and conflicts, and maintenance of control over motor and bodily functions, probably also play an important role in shaping these children's decision to draw a select part of themselves, emphasizing the head and omitting the genital area and legs. These two drawings alone offer interesting dynamic material. Here it is sufficient to observe the influence of affective factors in

determining the size of the drawing, and by inference, the underlying mental image.

A final observation about size: although some of the children drew the Baby condition the same size as their Now figures, most had a very clear image of a baby as small. They often took great pleasure in drawing Baby as "tiny," "a little speck," and remembering when they were "very little." They were better able to evoke past images of themselves than anticipate future ones.

Affect

The results indicate a group trend between the affective expressions of the figures drawn and the child's cognitive level. As noted, the presence of differentiated affect, not the degree of diversity of affect, is significantly related to Cogroup. With advances in cognition, the child is better able to represent distinct affective states. This finding is consistent with both psychoanalytic and Piagetian assumptions. Progress in ego differentiation and integration increase the capacity to organize and define experience. Similarly, movement from one Piagetian cognitive level to the next in the hierarchy (e.g., from preoperational to concrete operations) enhances the child's perception and comprehension of emotional states. The less cognitively developed child will have difficulty representing graphically any specific emotion: The affective expression of the figure will be unclear and lacking in definition, as the data demonstrate. As the child ranks higher on the Cogroup scale, fewer instances of Undifferentiated Affect occur. The figures have distinct expressions, even if they are all the same--e.g., a Happy smile.

The presence of any differentiated affect, therefore, is generally predictive of cognitive maturity. Based on this criteria--the frequency of Undifferentiated Affect scores--children can be distinguished as more or less cognitively advanced.

Exceptions to this trend were observed. Subject 27, Cogroup 6, and Subject 16, Cogroup 7, have higher Undifferentiated scores than might be expected. Almost half their figures, 13 and 11 respectively, do not have distinct expressions. In both cases, however, the child's interactions with the experimenter indicated additional emotional factors influencing performance. For example, while Subject 27 demonstrated sophisticated cognitions and evinced pride in his intellectual achievements, he was under unusual stress on the day of the experiment as his father had just been hospitalized (a planned hospitalization). Despite his interest in the tasks, he was preoccupied and appeared to be experiencing general anxiety. It might follow that his figures would have looked primarily sad or anxious, rather than be lacking in expression. However, the absence of distinct expression in many of his drawings may reflect both the presence of, and a defense against, intense affect. Thus, disturbing feelings about his father's hospitalization--may have interfered with his ability to organize his perceptions and portray differentiated expressions. In addition, he may try to dull the impact of distressing affect through intellectualization and denial. His "affectless" figures would then represent his attempts to cope with upset: Flat affect appears as a defense against worry or sadness.

While Subject 16 did not seem to be undergoing any overt crisis at the time of the experiment, the general tone of his drawings--especially

as conveyed in his use of features as discussed previously--suggests that he is experiencing a difficult emotional period. Thus, he has a relatively high number of figures with Undifferentiated Affect as well as those displaying negative affect--Sad, Anxious, Angry. The predominant lack of differentiated expression, however, appears to be a function of a high degree of emotional confusion and uncertainty. While his overall cognitive organization seems intact, the presence of unresolved conflicts and the intrusion of intense affect--especially aggression--is apparent in his drawings. A general feeling of insecurity pervades his figures, reflected in their lack of emotional definition.

Also in contrast to the general trend, Subject 9, one of the younger, less cognitively mature children, had an extremely low Undifferentiated Affect score of 1. The rest of his 23 figures were characterized by a distinct Happy expression. The fact that he is able to recognize and portray a particular affective state does not necessarily contradict his standing on Cogroup rank--1. In this case, stereotype may be an overriding factor. He draws basically the same figures with the same expression throughout: The smile is a fixed part of his generic image of a person and exemplifies conservation of type. His behavior relates to the issue of diversity of affect in the drawings.

Theoretically, the ability to experience intense and varied emotions, without consequent psychic disorganization, should increase with advances in cognitive structure and functioning. Psychoanalytic theory postulates that in normal development, cognitive and emotional differentiation proceed together. From a global, amorphous state, the child gradually begins to distinguish between different emotional experiences, from the

broad categories of pleasure and unpleasure to more refined distinctions within the possible spectrum of feelings. The appropriate recognition, labeling, containing and directing of strong emotions represent a high level of structural organization. The stability of psychic structures ensures the integrity of the self through the vagaries of emotional experience. Thus, individuation involves both increased cognitive and affective awareness. Similarly, Piagetian theory also states that cognitive progress should aid in the recognition of different emotions. Both theories agree that the ability to understand that a person remains the same despite variations in emotional expression--i.e., "Mommy angry" and "Mommy Happy" and "Mommy Sad" are all the same Mommy--is an indication of psychic development. Identifying emotions is an achievement. Empathic identification with another's emotional state is an aspect of this capacity.

Thus, diversity of affective expression ought to be associated with cognitive level. However, although Diversity does not correlate with Cogroup, this finding is not incompatible with these basic psychological principles. Rather, both the measures used and the influence of additional factors can account for the results obtained. For example, stereotypy has been mentioned as a basis for the lack of diversity. This may be interpreted as primarily cognitive in nature. In addition, consistency of affect across all pictures may have more to do with the child's mood at the time of drawing than with any other factor. As Koppitz (1968) and others argue, the human figure drawing represents the inner child at the moment, including the projection of the predominant feeling-state. If the child is essentially content during the experiment, this should be reflected in "Happy" figures. This was the case, for example, with Subject 28, Cogroup 8,

who showed little variation in affect: 22 figures are Happy, and 2 Sad. There is little diversity but clear differentiation of expression. A less mature subject, 26, is Happy across all figures. Her behavior shows enjoyment in the tasks as well as stereotypy. Her figures are all alike in every way except size, unlike those of Subject 28 which are individuated with Features 1 and 2. Further, Happy figures may also be the child's way of conforming to social expectations. Since the experimental situation is a social encounter, some children may want to be pleasing: They draw friendly-looking figures.

Consistency of expression, whether Happy, Sad, or other, may also represent internal stability, both cognitive and emotional. The child's experience of "sameness in the midst of change" and of an integrated self is reflected in the identical expressions of the figures.

Current conflicts or psychosexual problems, rather than cognitive level, may be responsible for the variety of expression, except in the case of the most stable and cognitively advanced children. One person or one condition may manifest a different emotional tone from all the other figures. Or, as with some subjects (across all ages and cognitive levels) several different feeling states are depicted with one state predominating. In each case a combination of factors are at work, including the child's characteristic emotional tone, immediate state, the reaction to the task as a whole, or to a particular person or condition. These, in conjunction with cognitive level and social expectations, determine the diversity of expression. In addition, because of this complex interaction, it is difficult to assess patterns of identifications based on affective expression alone.

There is, therefore, some indication that the intensity of affect may interfere with cognition and overall performance, in contrast to Piaget's theory. As posited by psychoanalytic theory, affect can disorganize psychic structures. The drawings of Subject 11, for example, show structural pecularities which appear to be the result of the intrusion of intense affect. The inaccurate proprotions and the exaggeration of particular features suggest a disturbance in the underlying structural organization.

Finally, there was some differentiation of affect based on the life-stage of the person portrayed. The generic Baby is often crying--for a bottle, or because of fatigue. Similarly, old people are occasionally drawn as sad "because it's sad to be old." The main effect, however, was to draw most figures with similar expressions, whether differentiated or not, with only a few variations. The prevalence of more differentiated and Happy affect among the older children appears to result from the combination of cognitive, affective and social factors--specific to each child.

Verbalizations

The child's comments, like the drawings, were expected to reveal additional information about the organizing principles and affective determinants which structure and inform their understanding of identity.

An inverse relationship was found between overall verbosity (Verbsum) and Affect Mean (high Affmean = more Positive Affect). It is possible that children who drew more negatively-toned figures, and, by implication, felt sad, angry or confused themselves, needed to express their feelings and found the opportunity to do so with the experimenter. Children who

had a high frequency of Undifferentiated Affect, and therefore also had low scores, may have guided their graphic actions through language. As Piaget (1969) suggests, language serves as a substitute for actions or as a means of "objectifying actions in progress": the use of language assists in the evocation of a representation of the person drawn. These children gained mastery over their actions and impulses--or expressed their difficulties--through verbalization, rather than through fully internalized thought.

However, although children who drew "happier" figures tended to talk less, verbosity was essentially a highly individual characteristic. Several factors, not fully assessed here, contributed to talkativeness: these include the amount of time involved in completing the experiment, the child's engagement with the experimenter, interest in and difficulties with the tasks, and mood, language ability and general verbal behavior. The kinds of comments made proved more illuminating than the number of comments.

Older, more mature subjects made the most Descriptive and fewest Inappropriate remarks: Their comments tend to be realistic in regard to their drawings. Although they occasionally engaged in fantasy, when they described themselves or another person, their drawing behavior reflected an accurate awareness of individual attributes: e.g., "I have an ovally head," "I wear my hair in braids," "Dad's losing his hair," etc. Children lower in Cogroup rank made more cognitive comments, i.e., more remarks pertaining to general notions of classification, comparison, and order: e.g., "Babies are little," "You're bigger as a teen than as a baby," "Girls wear dresses," etc. As suggested, these children may have been

thinking "outloud," evoking and noting the criteria which structured their perceptions and graphic representations.

Affective and Fantasy comments tend to be associated with high negative or Undifferentiated Affect in the drawing. Subjects whose representations manifested the intrusion of affect (as described previously), also conveyed such feelings in their comments. Similarly, subjects who show little differentiated affect are more likely to be affect-dominated than others. Their comments are appropriate to a phase of development in which ego-functions, reality-testing and secondary-process thinking are still being consolidated. They are more likely to confuse fantasy and reality and to engage in symbolic play in relation to the drawings.

There were no overall group trends for the remaining categories of comments pertaining to Context, Family, Appropriateness of remark, or Task issues. These tended to occur across all children or to be typical of just a few, and were, therefore, not statistically significant. Task-related comments occurred the most frequently. A child might comment positively about the task, e.g., "I like to draw this," or "This is a good one," or more often, express some difficulty with it. In the latter case, the remark indicated concerns with performance, motor or artistic skill, or implied underlying conceptual difficulties. For example, Subjects 23 and 30, both in the highest Cogroup rank--9, expressed occasional dissatisfaction with their drawing, or a child might simply state, "I don't draw well" or "I'm not good at this" prior to or during the experiment.

Comments pertaining to problems in imagining a person or condition were more common. They derived from two sources. One, primarily affective, often entailed denial or resistance to the notion of change--for

example, to accept that a parent had once been young or would grow old. The other, primarily cognitive, involved the child's conscious inability to conjure up and transform an image--"I didn't know Mom then," "I don't know what you looked like as a teen," etc. In either case, the child expresses verbally what is evident in the drawing: the inability to evoke a complex, differentiated internal image which can be graphically represented and expresses some comprehension of the concepts of identity and continuity.

Certain conditions and persons elicited more Affective comments than others. Old age evoked remarks reflecting anxiety, anger, and sadness. Parental figures in the Now condition and the Self in various stages frequently stimulated Affective responses: "Daddy's angry," "Oh-oh, I don't like being old and dead; then I come alive again." These remarks indicate the level of the child's symbolic capacities, the ability to distinguish the real object or person from an image or representation of it, to differentiate between fantasy and reality. According to Piaget, although the semiotic function first appears at around 18 months to 2 years, it undergoes considerable change throughout childhood. The preoperational child will demonstrate varying degrees of understanding the differences between a sign, signifier and signified. The failure to detach the sign from the thing itself, or to distinguish between an internal schema and a concrete representation denotes a lack of distinction between symbolic and objective reality. Thus, for some children the drawing took on a life of its own. An angry-looking Mommy was experienced as the "real thing"; or representing Daddy as an old person was the same as Daddy actually being old.

In Piagetian terms, the confusion of fantasy with reality should begin to diminish during the concrete operational period. While this was not statistically assessed, it appeared that the cognitively advanced children were more aware of their fantasies as fantasies. They could "play" with the images and still recognize the boundaries between the real and symbolic worlds. For these children, an occasional loss of distance from a drawing indicates the presence of strong affect in relation to the person represented and is not typical of their overall cognitive functioning. Such intrusions of affect or primary-process thinking give a glimpse of the ongoing structural process the children are engaged in and their major affective concerns.

Identity-Questions

The conscious capacity for self-reflection was addressed through the Identity-Questions. The lack of significant intercorrelations among the three questions is interpreted, in part, as a problem with the method and the measures themselves. Several factors, such as fatigue, attention level, language ability, and the formation and phrasing of questions, influenced the children's responses. These factors interfered with an adequate assessment of the effectiveness of the questions in tapping the central issues. For example, the questions were asked at the end of the experiment when fatigue had already set in. Not enough time was allowed to determine the child's comprehension of the questions as presented or to reword them if necessary to a level more appropriate to the child. A full exploration of the nature of each child's understanding of the concepts and the reasoning involved was, therefore, not possible. These

confounding factors may have obscured the potential interactions between the three variables.

Nevertheless, as was observed, despite these limitations, each of the three Identity-Qeustions yielded group trends in regard to other variables. The quality of the individual responses also provided information about identity-formation.

Name

The findings as to the understanding of a name as a sign generally correspond to Piaget's observations, with some important exceptions. Confusion of name and object is common until about age 6; between age 6 and 10, most children begin to differentiate the two although the distinction is not necessarily complete. By age 11, a name and what it represents should be clearly distinguished. For this group of subjects, only children below age 5 years 6 months failed to differentiate name from person. This is consistent with Piaget's findings. These children display Piaget's "nominal realism": the name is considered an essential part of the object itself. If the name changes, so does the object.

Transitional children, those who vacillated on the issue, ranged from 3 years 11 months to 7 years 4 months. They begin to separate name from object earlier than expected but are within Piaget's upper limit of attainment of the concept--age 10. Their responses, less categoric than those of the previous children, show their evident struggle with the issue and their attempts to reconcile apparent contradictions in their thinking. Thus, for example, Subject 11 states, "If I had a different name I'd still be me," but cannot explain why. When questioned further

(If your name was Mike would you be a different person or the same?), he responded, "Yes, I'd be Mike S.," (the name of a boy in his class). Or, Subject 23 at first states, "I'd still be me." Then, after some thought, he volunteered, "If I had a girl's name, I'd be a girl." When questioned further (If you change your name, it makes you a different person?), he said, "Yes, if you have a girl's name it means you're a girl, and if you have a boy's name, it means you're a boy." Subject 3 simply alternated between thinking she would be the same person and thinking she would be someone else, tending more toward the latter. The behavior of these children suggests that an internal reorganization is taking place in reaction to the need to accommodate new information about objects and symbols. They have yet to attain the structural integration that will enable them to understand the naming concept.

The majority of the children believed that they would still be the same person even if they had a different name. They ranged from age 3 years 7 months to age 8 years 11 months. Eight of them are below age 6, in contrast to Piaget's expected age limit. All are, of course, under age 11. With some of the younger children, however, it is not clear whether additional questioning might have uncovered some underlying confusion. Children who answered "correctly" were not always asked to explain their reasoning; when they were asked, they often could not explain why they thought as they did. It is possible that further exploration might have elicited some qualitative variations in their understanding of the concept and in their comprehension of the question itself.

However, several children were quite sure of their response and explained their reasoning. Some examples follow:

Subject 10: "I'd still be me...I'd look the same and still be in the same class and I'd still be talking to you."

Subject 13: "I'd still be me...you're always you once you're you... My Mom picked my name when I was a little baby...The doctor wanted to name me Carol but Mom wanted Clair...My nickname was Clair-Bear."

Subject 18: "I'd be the same...it doesn't matter--I'd still have the same skin, blood, nationality—I'd still be me."

Subject 25: "Mom could have called me another name when I was born, but still I'm me...first, Mom bore me, then she named me."

Subject 27: "I'd still be myself...it's not your name that makes you what you are--it's your features, your genes."

Subject 28: "The name doesn't matter--because no one changes my face, my body, my voice--even if I change my name."

As can be seen, some children focused on the naming process--a name is external and assigned. Others focused on the integrity of the self-concept. Derived from the body-image, the sense of self remains stable despite the name change. It is clear from the data that children of the same cognitive level may vary greatly in their use of such symbols.

Gender

The fact that gender constancy was attained by almost all the children is in keeping with theoretical and clinical observations. As Mahler, Jacobson and others state, gender differentiation occurs quite early, during the preoedipal period. By the second year, the child is believed to have developed a rudimentary sense of gender identity. Between 3 and 5

years, with the resolution of oedipal conflicts and concomitant identification with the parents, gender identity becomes more firmly established, more consolidated and constant. Thus, it is not surprising that even the youngest children show less variation in their understanding of gender constancy than they do of names and symbols. Even though some children were not fully certain, none stated unequivocally that they could change their sex.

The four children who were not sure ranged across all ages. Their answers varied from a simple "I don't know," to the possibility of a sex-change operation based on an article one child had read in the newspaper. While this Subject, 27, attained a high Cogroup rank--6+--appropriate to his age, some doubts about gender identity surfaced with this question. Although another child, Subject 3, stated that "Girls can be boys and boys, girls," she then indicated some awareness that she was engaging in fantasy. When asked if this was "pretend" or "make-believe" she said, "Yes, I'll be a Mommy when I grow up" but then continued with her fantasy. This subject was transitional as to Name and scored 0 on Identity-Awareness. However, since she is one of the youngest children, her responses are compatible with her cognitive level. Fantasy as a form of symbolic play assists in the formation of identifications and in fostering increased differentiation between internal and external reality and between difference and sameness.

Interestingly, Subject 26 was anomalous for her age--7 years 11 months, and Cogroup level--3. Although she is one of the oldest children, she was unable to conserve, and her figure drawings are quite stereotyped and undifferentiated. In addition, she did not have a stable sense of gender.

Nevertheless, she attained a 5 on Identity-Awareness: "I talk and I hear and I see my fingers and my toes--so I know I'm me." Her behavior illustrates the varied and complex interactions of factors which constitute the sense of identity.

By contrast, 26 children were certain they could not change their sex, even if, as was the case with several, they could not explain why. "Because you can't be a girl if you're a boy" and "You can't be a boy if you're a girl" were not infrequent responses. Other children elaborated somewhat further, e.g.,:

Subject 1: "Can't be a girl...because I'm not a girl...'cause I'll grow up to be a Daddy or a policeman and girls grow up to be womans."

Subject 3: "I can't change because I have breasts and boys don't have them...because I have a vagina and boys don't have that."

Subject 7: "No, you can't change because you can't change your body around."

Subject 10: "I can't grow up to be a girl...because you can't do magic...I'll be a man."

Subject 24: "I could never be a boy. I could act like a boy but I'd still be a girl."

These responses indicate the stability of the underlying body-image--including genitals as gender determinant, the early identifications with parents as models of gender identity and gender role, and the variable nature of behavior above and beyond gender. Gender is understood to remain constant while other aspects of identity may vary.

This development is clearly a function of both cognitive and affective factors. Gender identity fosters separation-individuation, which in turn furthers the consolidation of gender identity. Interaction with others provides the basis for comparison and contrast and the emotional attachments necessary for identification. Some children included in their answers their preferences for being their own sex and their dislike at the idea of being the opposite sex. Both positive feelings and anxiety about gender may be inferred from their individual responses. In either case, it is obvious that at an early age, gender is an essential part of the self-concept with important affective significance.

Identity-Awareness

Cogroup proved to be slightly better than age--though not perfect--in assessing Identity-Awareness (as defined by the Identity-Question). This finding is consistent with Piagetian assumptions. Although able to engage in symbolic thought, the preoperational child lacks awareness of being "the thinker of the thought." Egocentric, subjective thinking predominates. According to Piaget, this results from the "intrusions of the self in everyday thought" which interfere with objectivity (1929, p. 34). Only with the advent of concrete operations can the child begin to engage in introspection and self-reflection.

Similarly, psychoanalytic theory might argue that until the resolution of the oedipal conflict and the relative consolidation of psychic structures, the child's consciousness is insufficiently formed. Secondary-process thinking and reality-testing must be well established for conscious self-reflection to take place. A differentiated self must exist to be experienced both subjectively and objectively. The higher the

Cogroup rank, the greater should be the capacity for self-awareness and the more sophisticated the self-concept: The child becomes increasingly able to define identity in terms of complex attributes--both physical and psychological.

This trend was generally observed. No child achieved the highest level of Identity-Awareness until conservation had been established--Cogroup 5. This suggests that the basic principles underlying conservation--detachment from immediate perceptions and the reorganization and integration of objective reality--are closely related to both the construction of generic identity and to the capacity for self-awareness. A certain degree of detachment or distance from the immediate, subjective self is essential for accurate self-perception. This phenomenon is intrinsic to the psychoanalytic concept of the "observing ego," especially as it becomes manifest in psychotherapy: A realistic sense of self, and correspondingly, of others, evolves when the ego is neither overwhelmed by, nor too distant from, the drives, impulses, and conflicts which motivate and inform behavior. This premise would explain the anamolous behavior, for example, of Subject 16 who scored 0 on Identity-Awareness despite a Cogroup rank of 7. It has been noted that this child's drawings showed the effects of intense affect and insecurity. It is not surprising, therefore, that he shows difficulty and confusion about his sense of self when questioned more directly. In this way connections can be made between Piagetian and psychoanalytic concepts. The cognitively immature child is dominated by perception and affect. The more mature child controls and directs perceptions and affect. Objective reality and subjective experience are differentiated. Cognitive flexibility and

decentering (versus egocentricity) parallel emotional stability and centeredness; both are necessary for identity-awareness.

Thus, children who score from 0-3 on Identity-Awareness respond to "How do you know you're you?" in an essentially non-reflective and egocentric manner. For example:

> Subjects 3, 7, 16, and 19: "I don't know."
>
> Subject 13: "Because Mr. Rogers sings it--'You're you, you're you, there's nothing you can do'--so you're always you."
>
> Subject 29: "I'm me, because my Mom had me and I'm the only person in the world that could be me."

Or, following the reasoning on the Name question, they confuse words with objects:

> Subject 1: "Because I'm Anton, that's my name."
>
> Subject 14: "Is my voice on the tape-recorder? 'Cause I'm made out of it (my voice)."
>
> Subject 23: "Because my Mom's my Mom and she gave me my name."

The response of Subject 14 conforms to Piaget's finding that children often confuse words (like names) or voice with thought. In tracing the child's notion of what it means "to think" and how, or with "what," we think, Piaget noted that during the earliest stage (on the average at around age 6), "Thinking is 'with the mouth.' Thought is identified with the voice" (1929, p. 38). This behavior reflects the child's continued confusion between internal and external reality. Although "speech is an activity of the self," the child believes that "words are part of material reality" (1929, p. 44). For Subject 14, thinking

about the self consists of his words and voice: They are a part of himself but also located outside of himself--the boundaries between self and world are not clear.

By contrast, children who score from 4-6 on Identity-Awareness, demonstrate increased ability to distinguish between subject and object. While they rely on perceptual features--e.g., physical appearance, and actions or behaviors like "I feel, I see," or "I tie my shoes,"--they recognize these properties as signs of who they are, ways of expressing and representing themselves. For example:

Subject 17: "Because I'm born, I can feel and see you and feel myself, and see myself."

Subject 18: "Because I do the same things--I wash my own hair, it's my hair; I play with my own toys, they're my toys. That's how I know I'm me and nobody else."

Subject 24: I don't act like anybody else (names other children in her class). There's only one of me...the only thing that looks exactly like you is a clone....Sometimes I pretend to be other people when I'm playing, but I can only be myself--what I do."

Subject 26: "I know...'cause I can talk and hear and see and move my fingers and arms...so I know I'm me."

Subject 27: "My features...my genes and cells...I look in the mirror and that's me."

Subject 30: "I know how I look--my skin, my hair; I know my feelings; I know what I can and can't do (compared with others)."

These children differentiate between self and others and can reflect on the "self" as an "object" with distinctive physical, psychological, and behavioral features.

Sex Differences

A few relationships were observed between the sex of the subjects and some of the other variables. As noted, in regard to the drawings, girls had fewer Undifferentiated Affect scores than boys. Although Age and Cogroup are positively related with the capacity to delineate distinctive affective expressions, neither variable was associated with a child's sex. Overall, in fact, the girls were younger than the boys, with a mean age of 5 years 11 months to the boys' mean of 6 years 1 month. Both sexes were distributed almost equally across Cogroup. Thus, neither of these factors explain their differential performances.

It is difficult to account for this finding. One possible explanation relates to the girls' higher scores on the Happy dimension. Although not statistically significant, girls drew 41 more of their figures with a Happy expression than did boys. Perhaps this is an artifact of socialization pressures: Girls may be more concerned with being pleasing than boys. They may draw more smiling figures as an almost automatic way of seeking approval. Thus, where a boy may not indicate any distinct expression, a girl might draw a stereotyped smile, thereby representing differentiated affect on the figures.

Similarly, socialization factors may play a role in the difference found between girls and boys in the number of Family comments made. This type of comment included references to general family history and relatives, as well as stories about the particular person drawn. Researchers of sex differences have noted that females tend to be more interpersonally-oriented than males, to be more aware of and sensitive to the needs and feelings of others. If this is a result of socialization patterns, for

example, in terms of dependency and affiliative behaviors, it may be that such experiences will be reflected in the girls' greater use of Family comments. At an early age, therefore, girls would express more interest and awareness of the interrelations of family members. However, since the correlation is not a strong one, it is also possible that a few girls in this group account for most of the Family comments. If this is the case, individual differences rather than general sex differences would result in this finding.

Girls also made fewer Task-related comments than boys. Again, this may be the result of a few individuals' behavior weighting the data. However, although Task-related comments were not statistically assessed in terms of positive and negative values, it is possible that girls made fewer negative Task-related comments (involving graphic or conceptual difficulties) than did boys. Such a finding relates to the observations of Koppitz, Machover, and others, that the drawings of girls are "superior"--in detail and quality--to those of boys until about the age of 9. If the girls draw better and, therefore, have less difficulty performing the task, this tendency would be reflected in few negative Task-related comments and a lower Task-related score in general. (Also consistent with previous observations, girls drew less active figures and fewer profiles than boys. However, unlike previous findings, both boys and girls drew "organized" pictures and both frequently drew the female figures as "powerful" and "pretty.")

Finally, as a group, girls scored higher on the Identity-Awareness question than boys. Whereas 13 of the 15 boys did not score higher than a 2, 10 of the 15 girls scored 3 or above. None of the boys scored 5 or 6,

in contrast to five of the girls. Thus, when asked "How do you know you're you?" only girls included references to complex behaviors or action--"I feel," "I see"--in addition to noting their physical features. Perhaps, again, girls are more interpersonally aware and therefore more self-aware at an earlier age than boys; or perhaps they articulate their awareness better than boys, since, in general, girls are usually more verbal than boys at this age.

Chapter IV

Conclusion

The ability to experience different aspects of the self while maintaining a sense of "selfsameness in the midst of change" is the basic principle of identity, both generic and personal. This study demonstrates that cognitive maturity is a significant determinant of the child's capacity to reflect on and articulate identity-feelings. The increased sophistication and complexity of the child's thought parallels progress in the structuring and integration of the self-concept. The lack of a perfect relationship between cognitive level and identity-awareness as defined in this study is understood primarily as a function of affective factors. Cognitive and affective development are viewed as interdependent.

Although a child may be relatively advanced cognitively, a consolidated sense of identity also depends on the stability and integration of emotional experience: the internalization of affective relationships in the form of identifications. These identifications are basis of the child's self-representations and, ultimately, of the psychic structures which encompass and comprehend them. If, due to disturbances in object-relations the child's identifications are highly contradictory, and the ability to modulate and channel affect and impulse are hampered, the corresponding self-image will be prone to fragmentation and confusion. Awareness of the self and of self-consistency depend on both the conceptual understanding of the qualitative and quantitative aspects of identity, as well as on underlying emotional stability.

The findings reported here underscore the intimate relationship between affect and cognition in the formation of the self-concept. The

results support Piaget's observation of developmental levels of conceptual understanding. Thus, a child may be able to convey a sense of his/her self-concept through a graphic representation--on the plane of action, but not be able to translate this behavior into verbal expression. In such instances, the capacity to evoke and manipulate mental images and engage in conscious self-reflection is not yet fully developed. It is arrived at by degrees, through the increased structuring of experience.

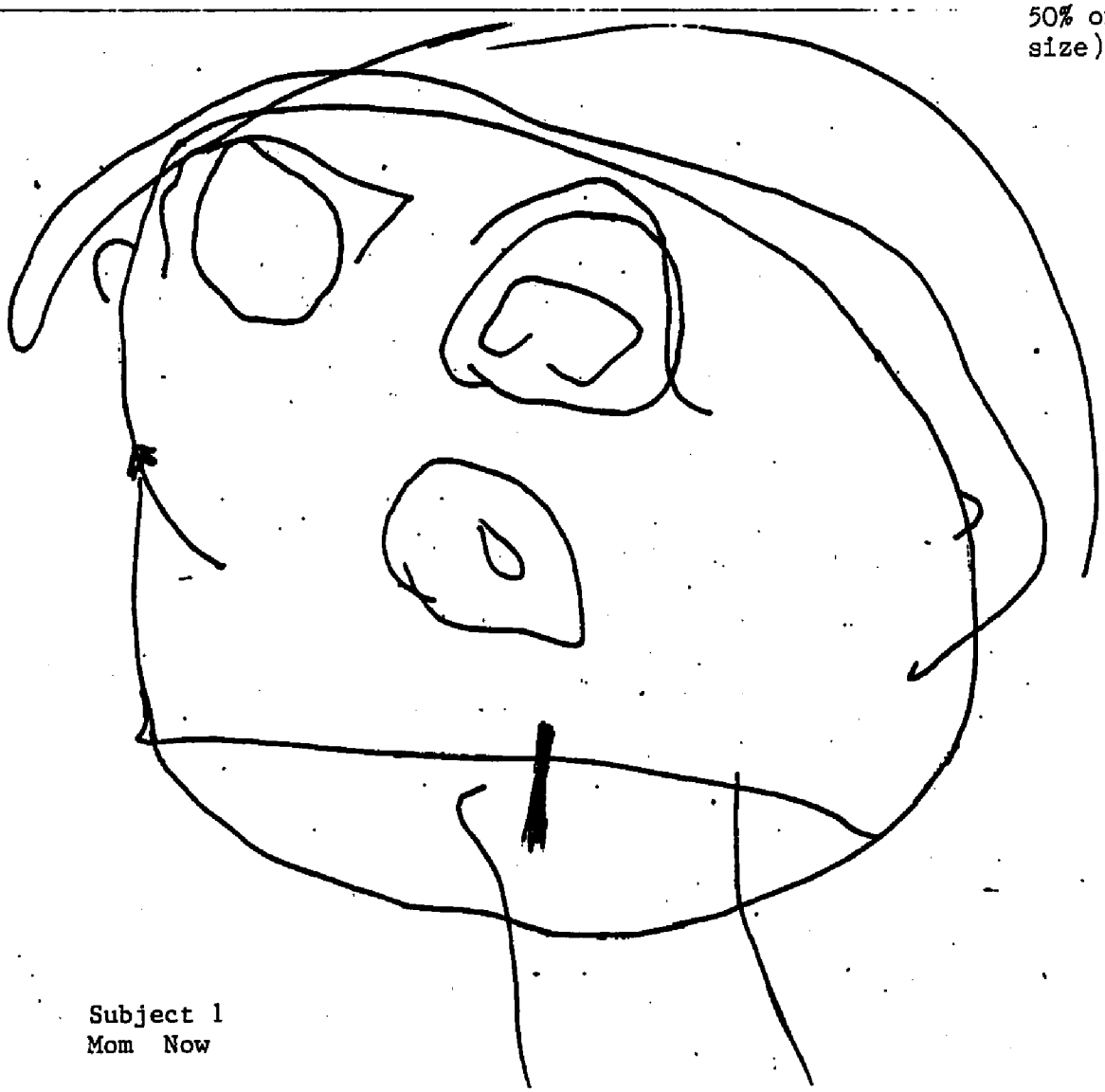
To construct and maintain a coherent sense of identity, the child must be able to sustain object constancy, distinguish between subjective and objective experience, and differentiate perceptual from conceptual reality. As Steingart (1969) notes, in normal development, the concept of identity appears to be consolidated on a cognitive level with the attainment of concrete operations--including the notions of conservation and reversibility--at the same time that ego and superego identifications are consolidated through the resolution of the oedipal complex. Further reorganization occurs during adolescence, as Erikson (1959) suggests. Nevertheless, the data indicate that the latency-age child demonstrates the necessary logic for recognizing and preserving the constancy and integrity of the self despite changes and increased complexity. Flexibility and stability of both affect and cognition appear to be established.

Appendix A

Samples of the Children's Drawings

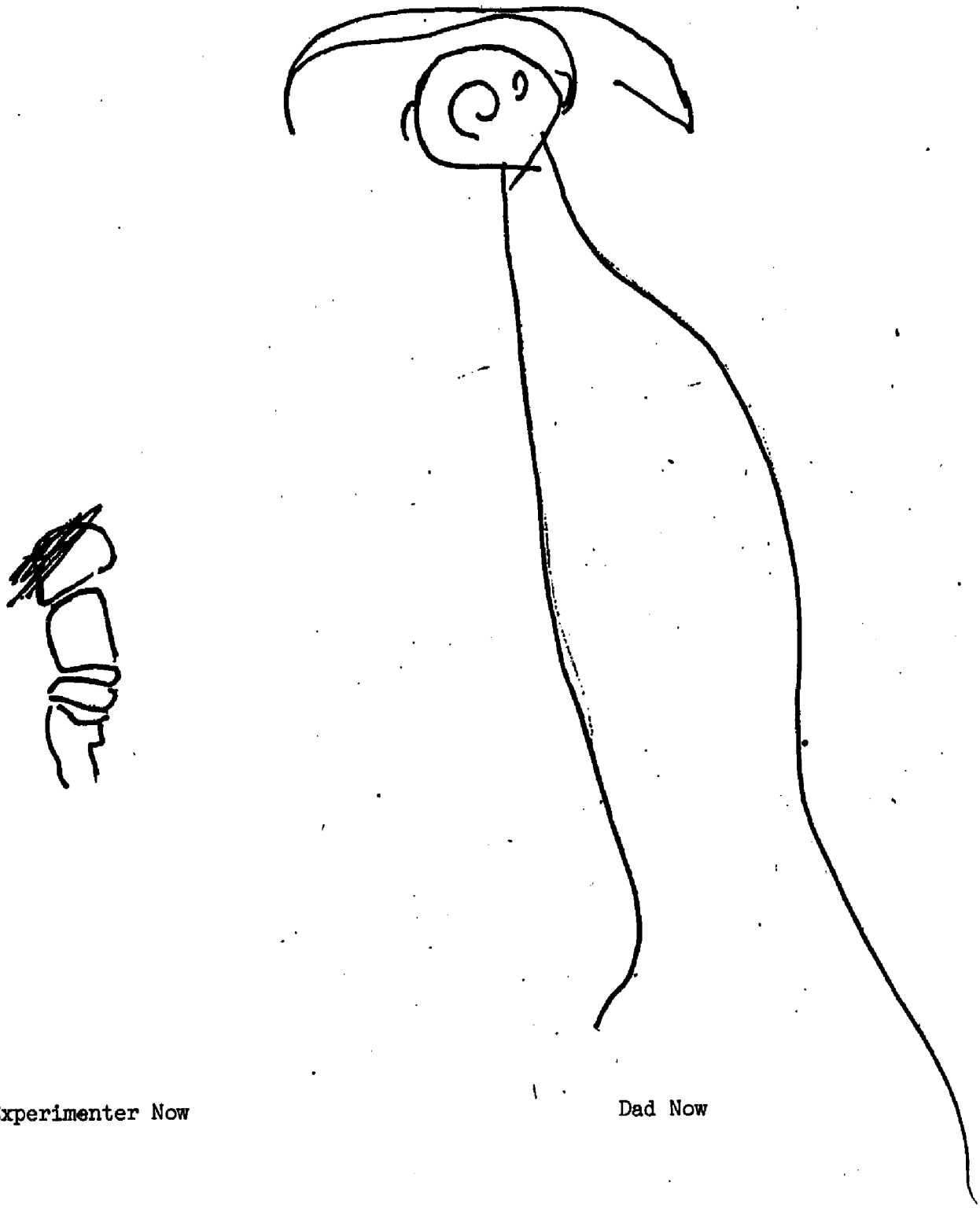
Subject 1
Self Now

(both drawings
50% original
size)



Subject 1
Mom Now

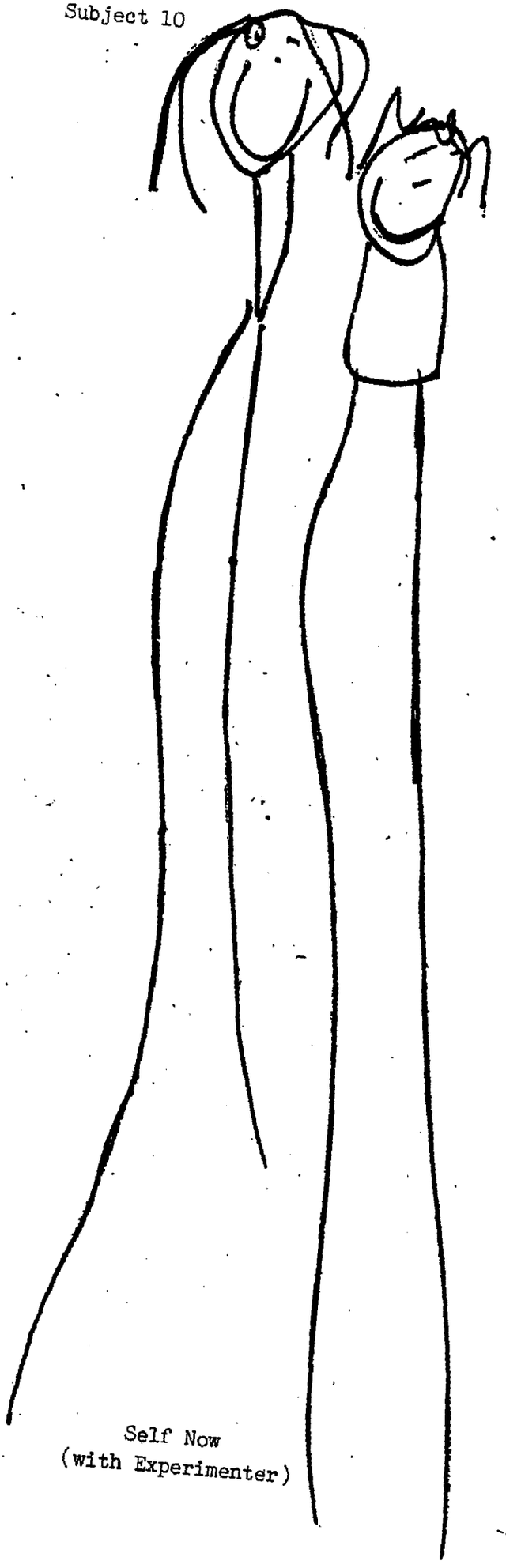
Subject 1



Experimenter Now

Dad Now

Subject 10



Self Now
(with Experimenter)

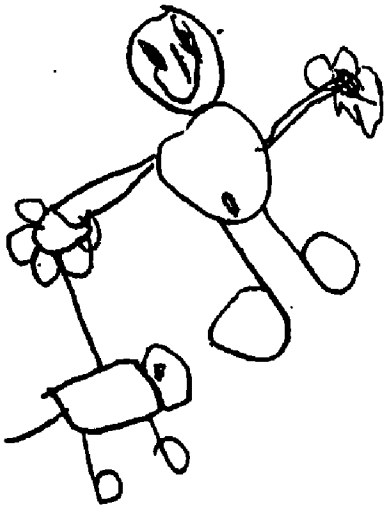
Self Baby

Subject 12

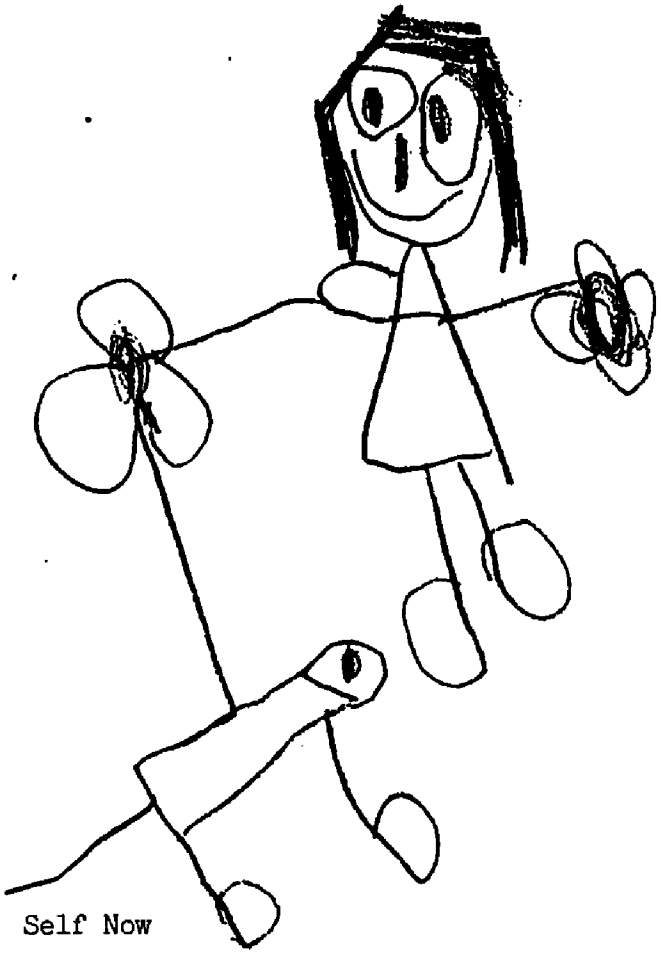
Self Now

Self Old

Subject 13



Self Baby



Self Now

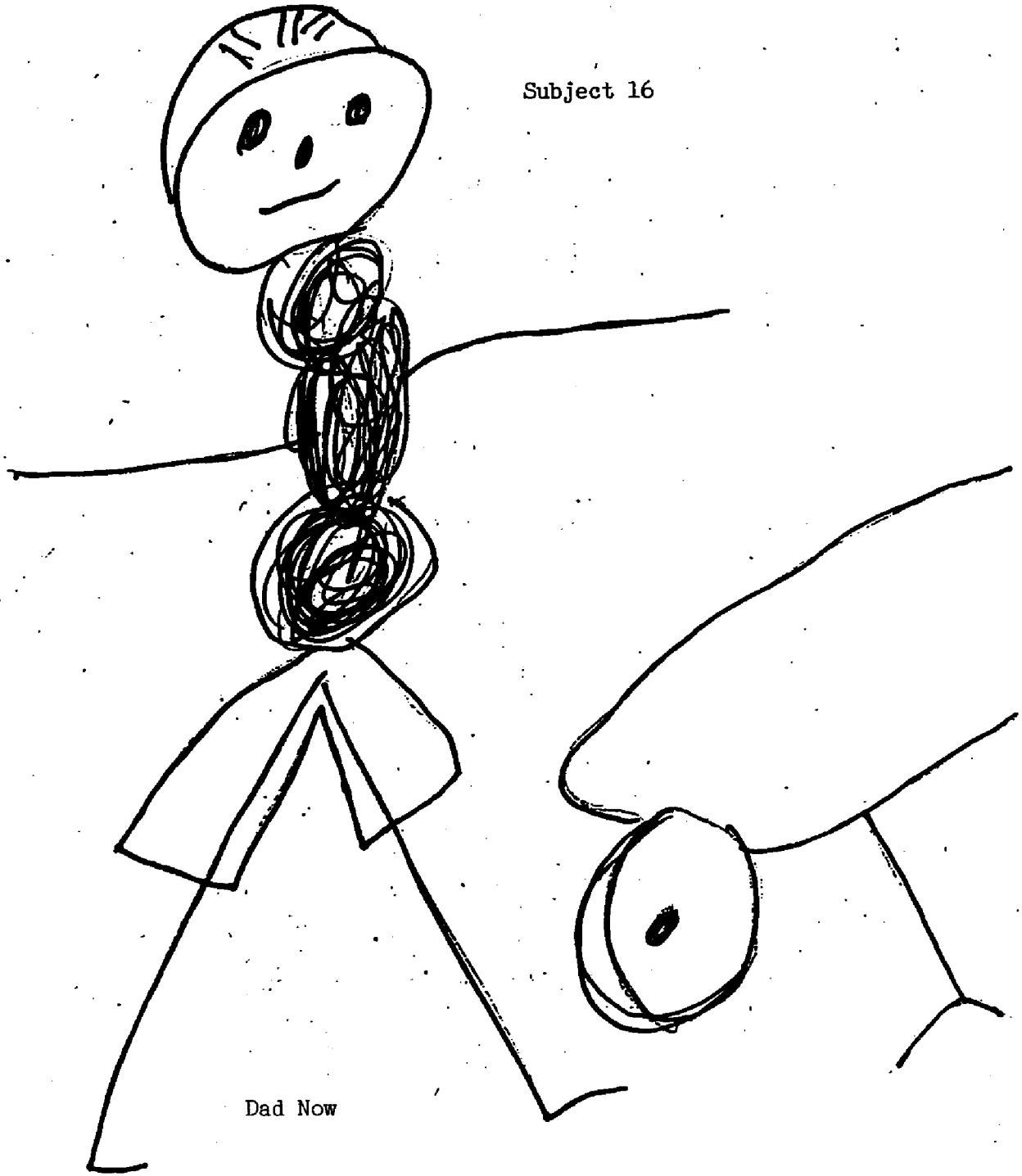
Subject 14

Dad Now

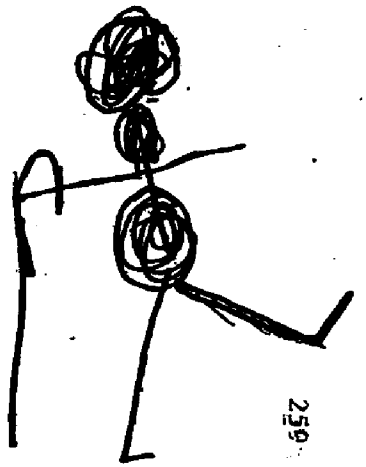
Self Now

Subject 16

Dad Baby



Dad Now



Dad Old

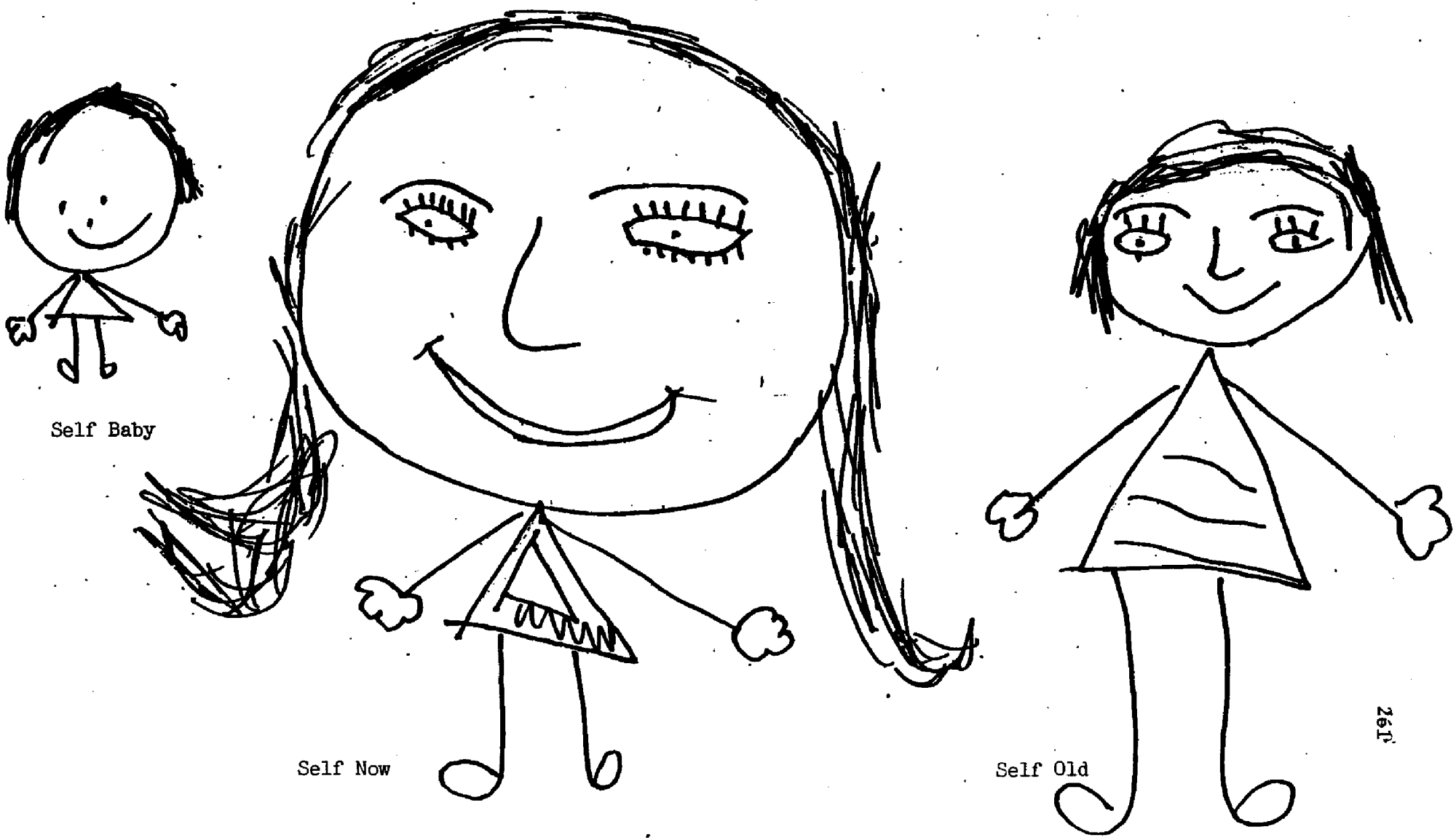
Subject 17

Self
Now

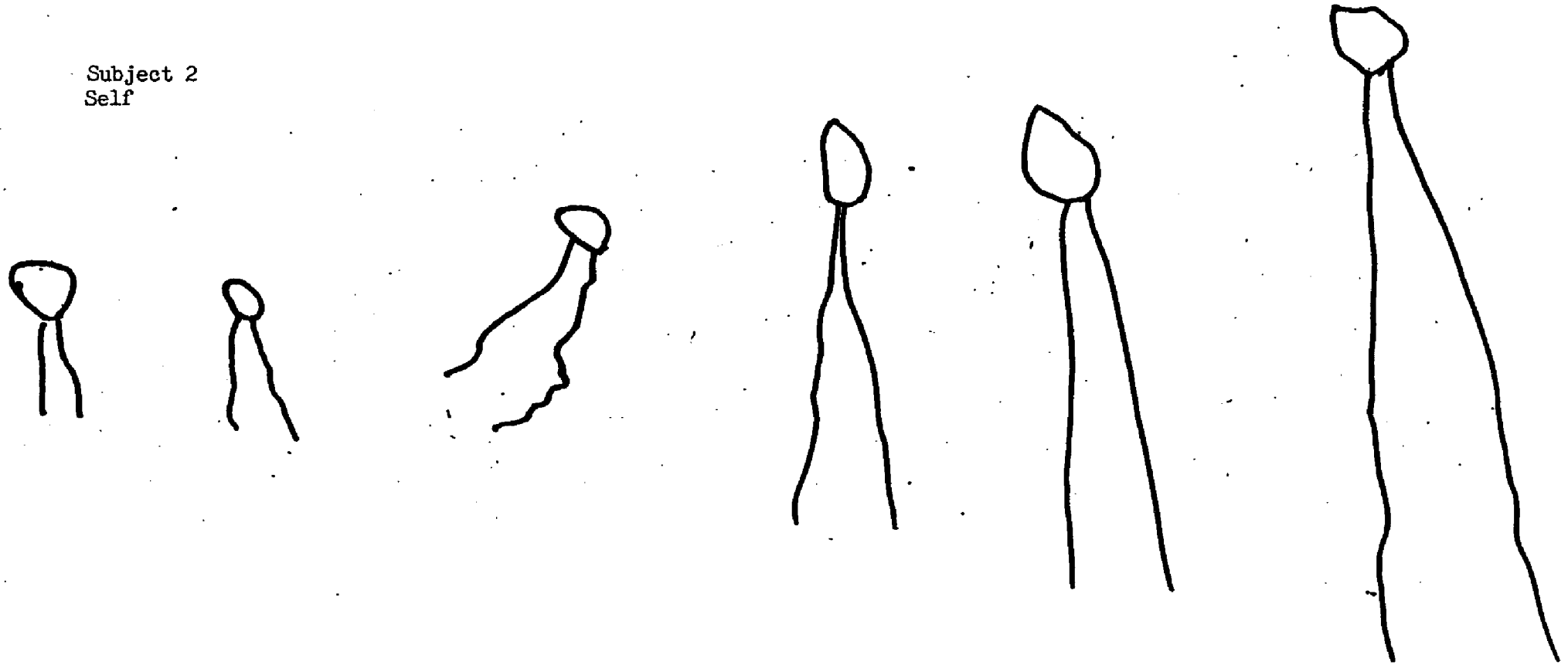
Experimenter
Now

Experimenter
Now

Subject 18



Subject 2
Self



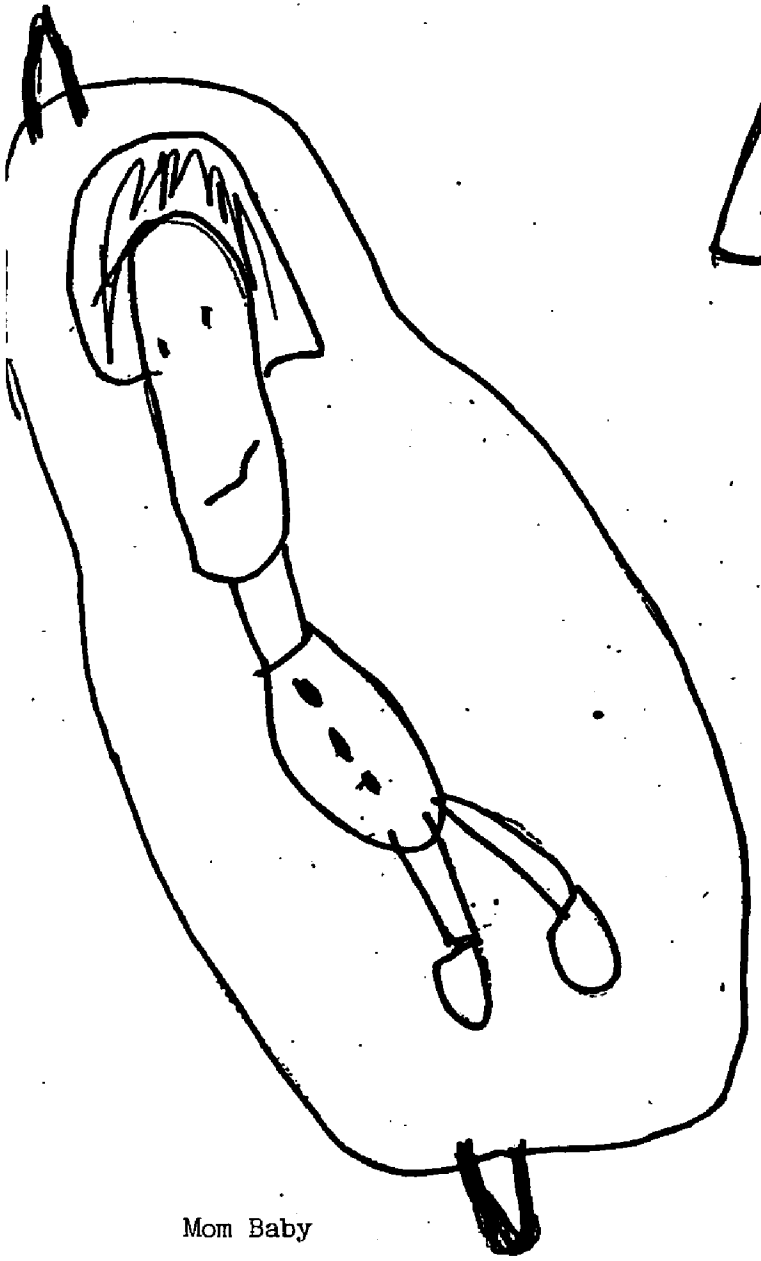
Baby Walk Now Teen Adult Old

Subject 26
Self

Subject 23
Self

Baby Walk Now Teen Adult Old

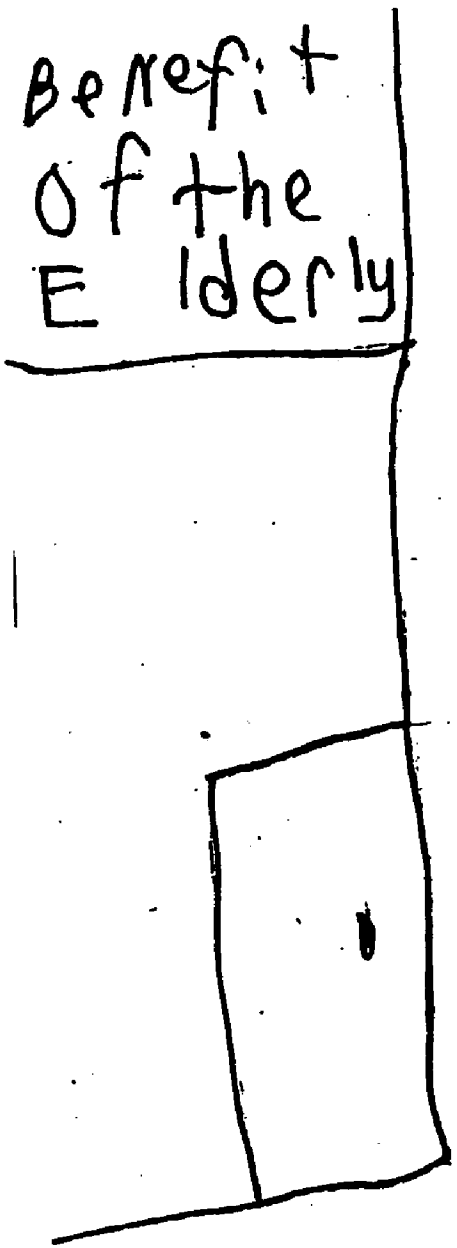
Subject 27



Mom Baby

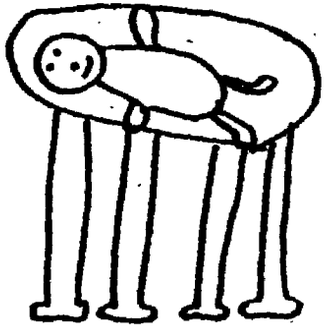
Mom Now

Benefit
Of the
Elderly



Mom Old

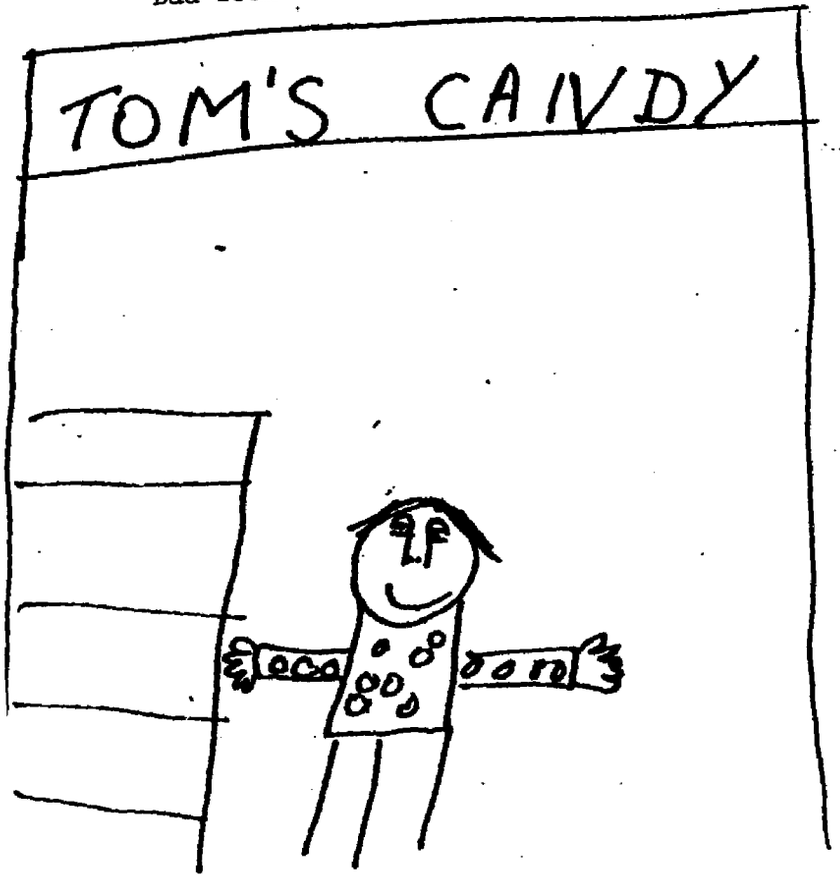
Subject 28



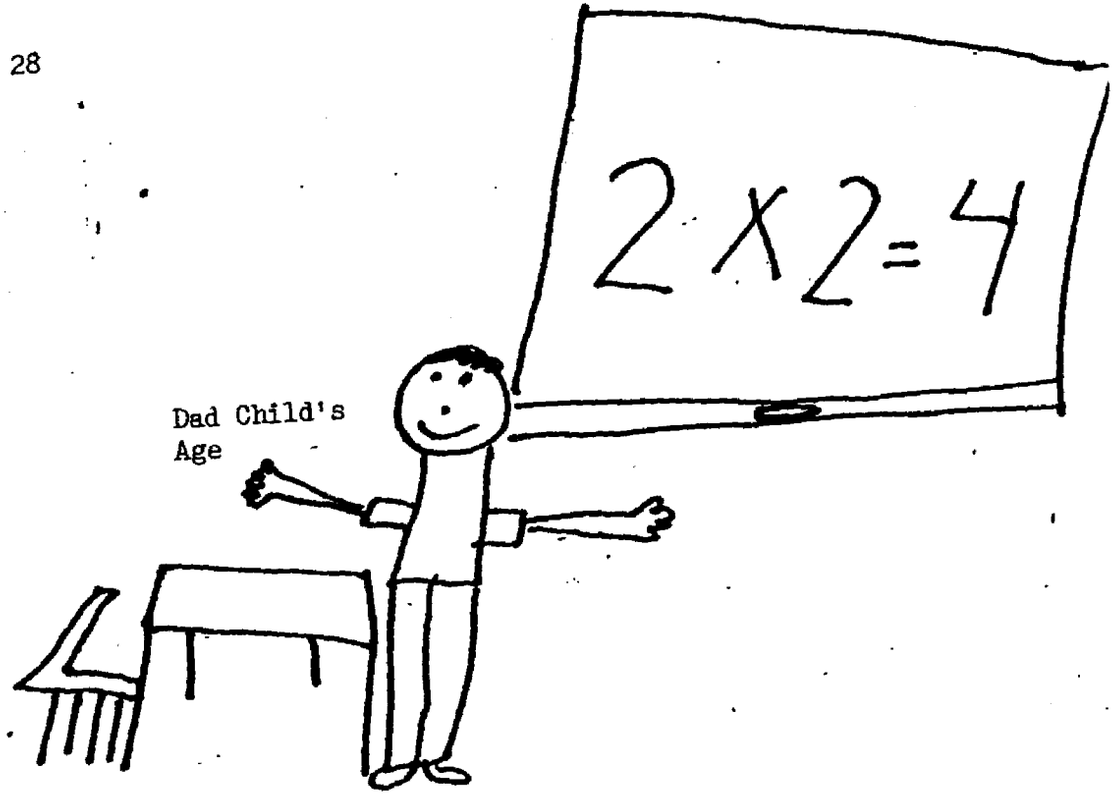
Dad Baby

Dad Walk

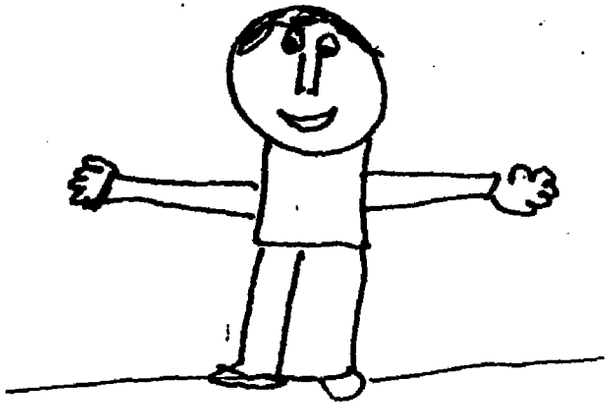
Dad Teen



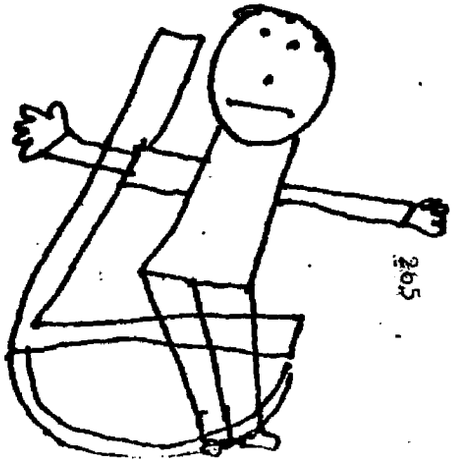
Dad Child's Age



Dad Now



Dad Old



Subject 7

Self Baby
(with Mom)

Self Walk

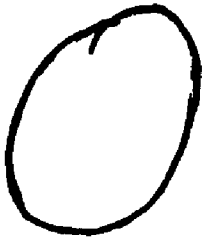
Subject 7

Self Now

Self Teen

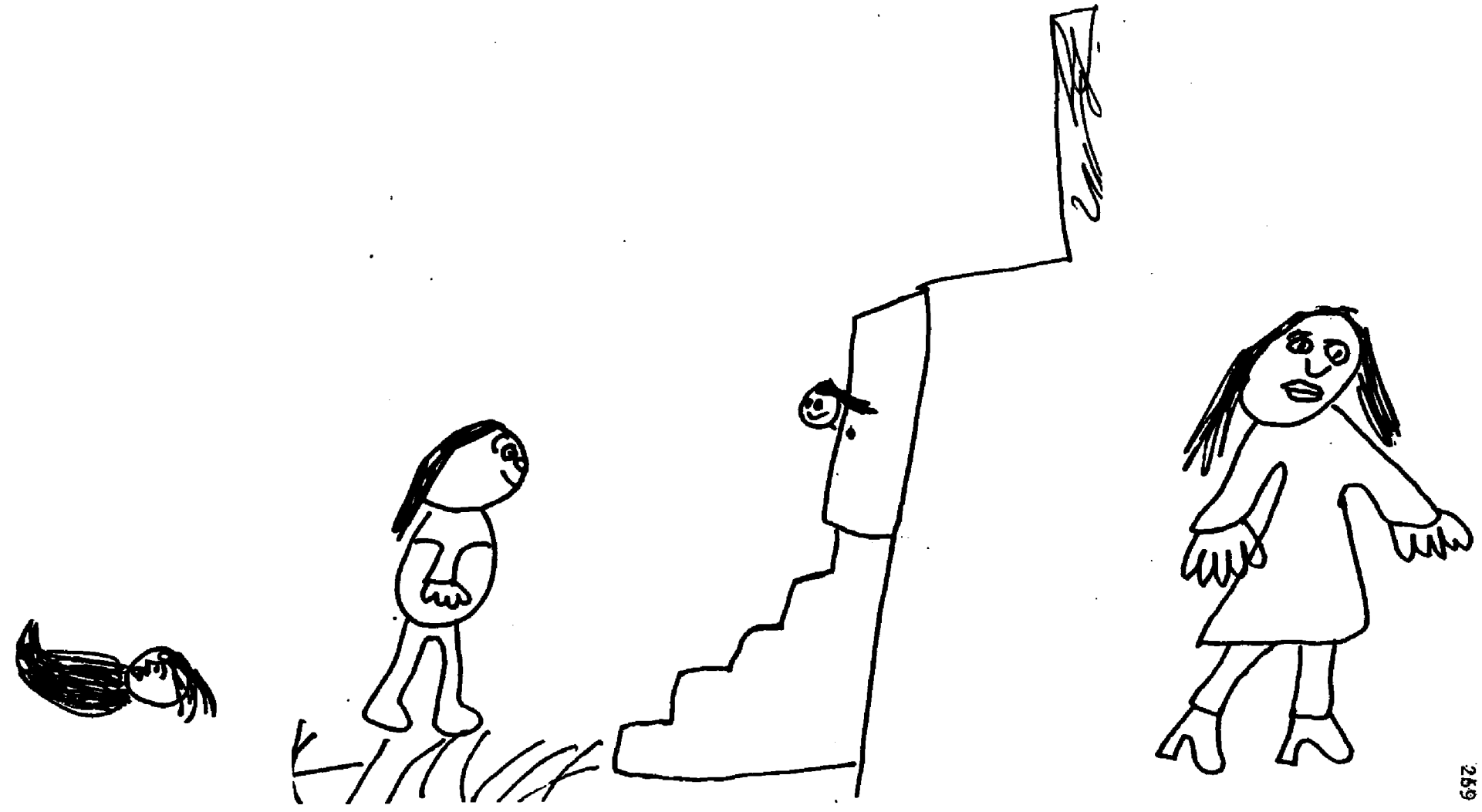
Subject 7

Self Adult



Self Old

Subject 21



Experimenter Baby

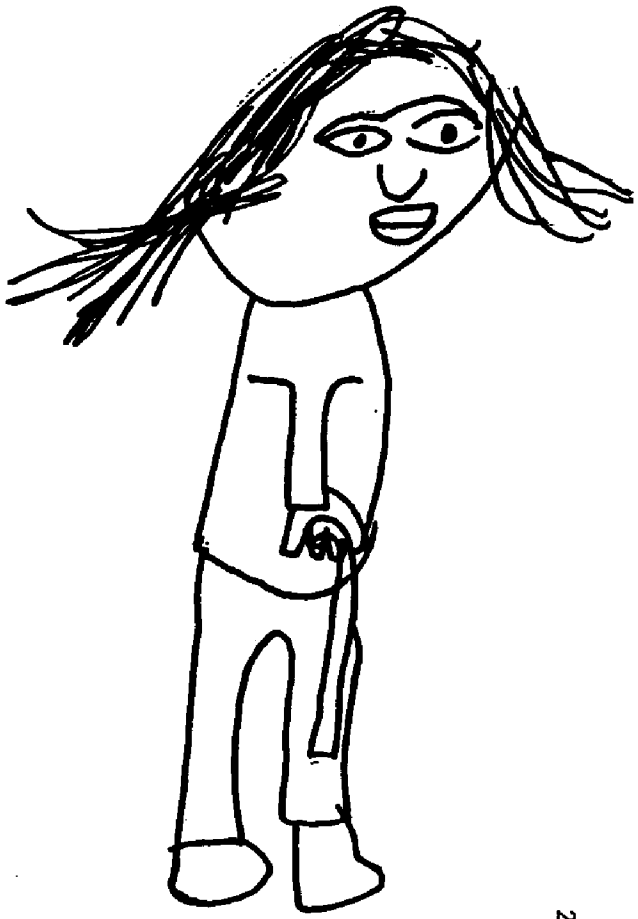
Experimenter Walk

Experimenter
Child's Age

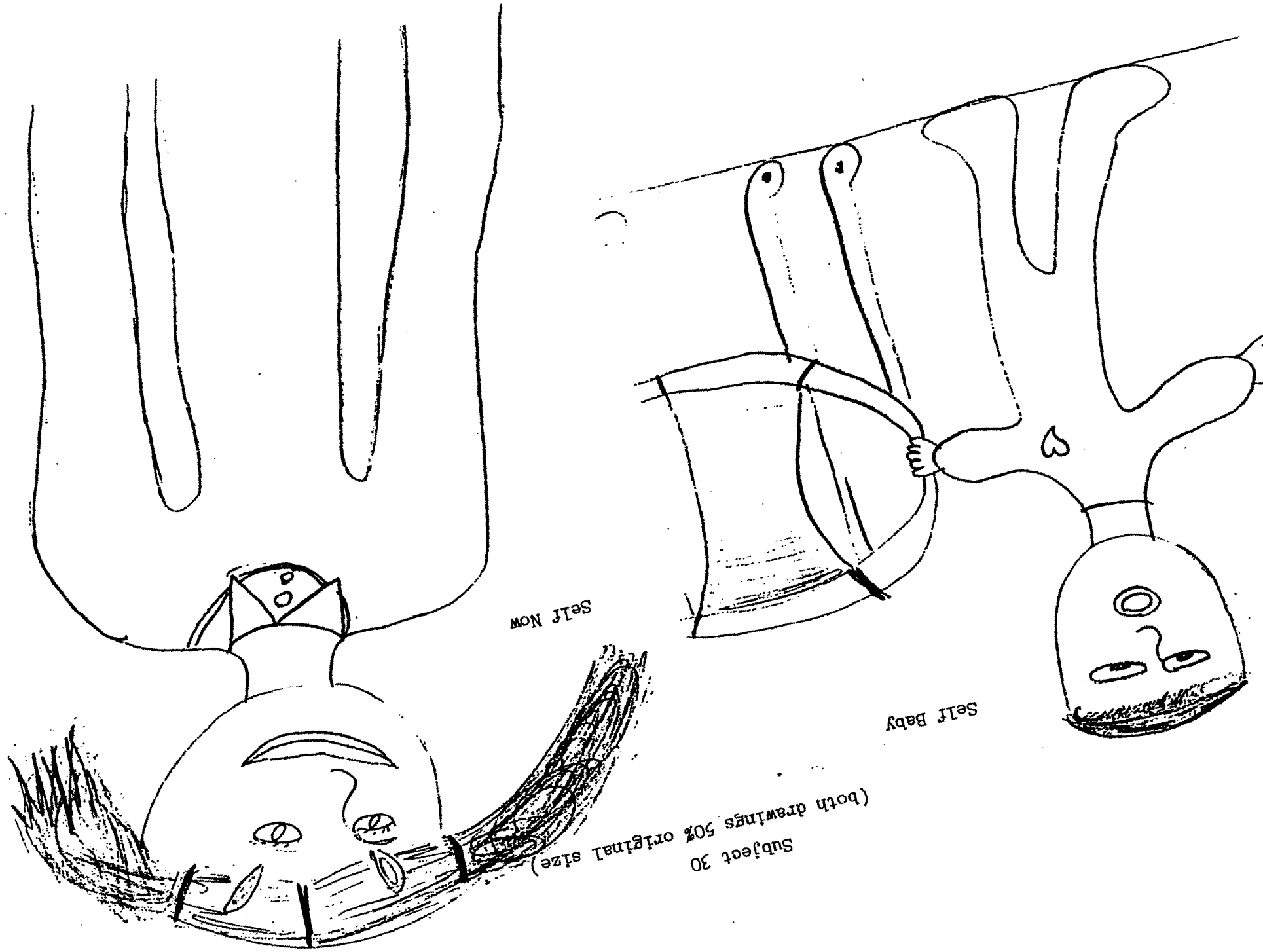
Subject 21

Experimenter Teen

Experimenter Now



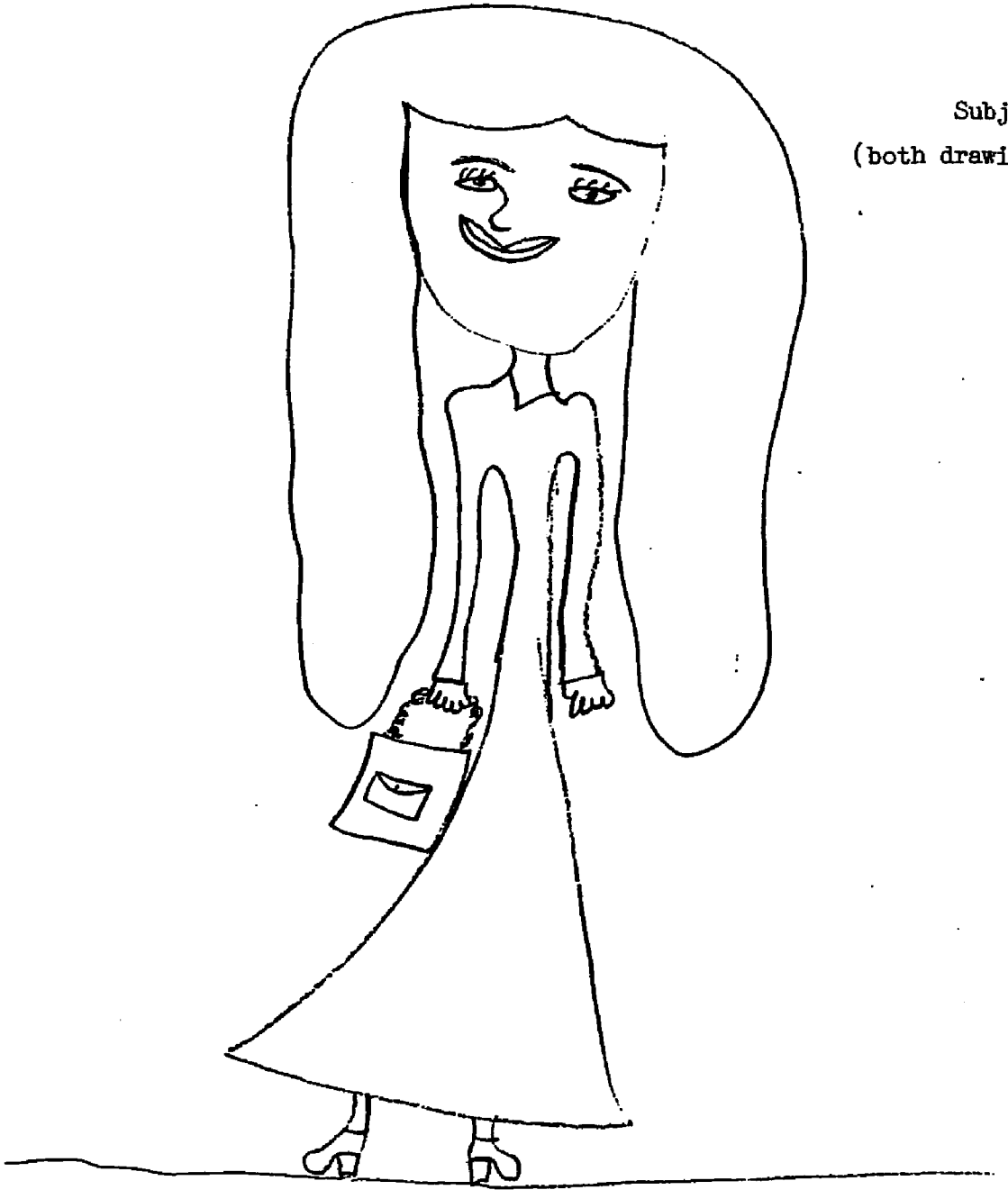
Experimenter Old



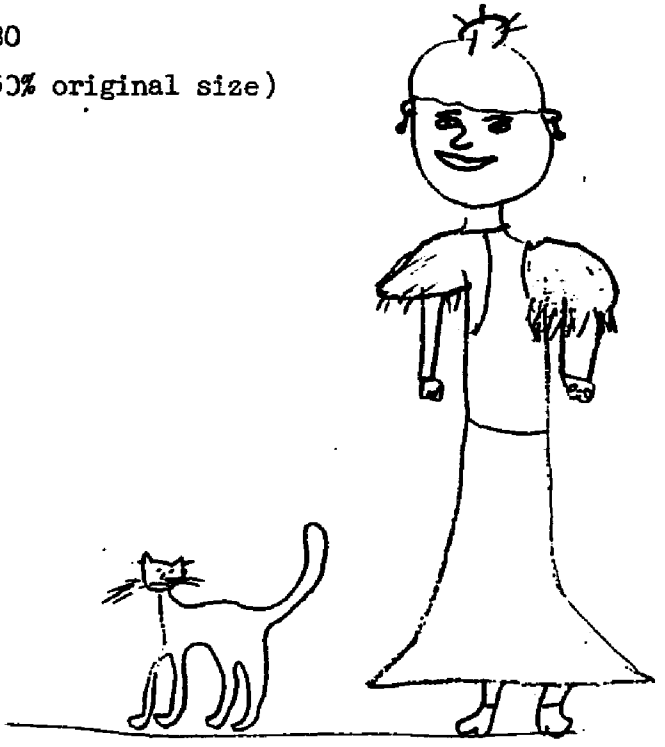
Subject 30
(both drawings 50% original size)

Subject 30

(both drawings 50% original size)



Self Adult



Self Old

Appendix B

Scoring Manual

Sex of child is coded:

1 Male

2 Female

Age of child is coded in months from:

043 (3 years and 7 months)

to

107 (8 years and 11 months)

Heights of Figures

Each figure was measured in height to the nearest tenth of an inch. This measure constituted the size score for the figure.

Affect of Drawings

Each drawing was coded for affect as follows:

1 Undifferentiated

2 Happy

3 Angry

4 Sad

5 Surprised

6 Anxious

Conservation of Matter

The level of conservation is scored according to Piaget's criteria.

1 Absence of conservation -- the child believes the quantity of matter changes according to the physical transformations observed. Perception overly influences logic.

2 Transitional -- the child affirms conservation in some instances, but not in others and is easily influenced by counter-suggestion.

3 Conservation -- the child maintains conservation of matter despite transformations. Justification is by "identity" -- "The shape is different but the matter is always the same."

4 Conservation -- the child maintains conservation of matter despite transformations. Justification is by "compensation" -- "It's longer, but thinner, therefore it's the same amount."

5 Conservation -- the child maintains conservation of matter despite transformations. Justification by "reversibility" -- "If you put it back again (as before), you can see it's the same amount."

Picture Stage

Each drawing is classified according to the stages described by Luquet.

1 Fortuitous Realism (or involuntary drawing) -- the meaning of a scribble is discovered in the act of drawing: the child begins to draw, makes a circle and exclaims "It's a turtle!"

2 Failed Realism (or synthetic incapacity) -- the elements of the drawing fail to be coordinated into a whole. There are failures in proportion and in the relation of different parts to each other: eyebrows under eyes, legs attached to the hand.

3 Logical or Intellectual Realism -- conceptual rather than perceptual attributes predominate. The child draws what s/he knows about an object or person, rather than what is seen. Perspective is ignored; objects can be seen through to what is behind them: a profile has two eyes, a person's body can be seen through the car door (a "transparency").

4 Visual Realism -- the drawing represents what is visible and from one perspective only. Elements are coordinated and proportion is taken into account. The drawings are like those of an adult.

Picture Structure

Each drawing is assessed as to structure according to criteria described by Piaget.

1 Topological Concepts -- "The property of being connected or bounded." The child can distinguish between open and closed shapes, but not between circles, squares, or triangles. Proximity and order are generally observed in simple drawings, but not in complex representations: head and body are circles; facial features are inverted.

2 Beginning Geometric Concepts -- Euclidean and Projective -- The child begins to use distance, angles, size, and proportion in the drawings. Attempts are made to coordinate these elements and make use of perspective: arms extend from the body, but are out of proportion; front view of body, but profile view of feet.

3 Coordination and Integration of Topological and Geometric Concepts -- The child takes into account and appropriately relates all of the above concepts. The child's drawing is like that of the adult.

Features 1

Each drawing is scored for the presence of features particular to the child and especially relevant to, or associated with, a distinct developmental stage or psychosocial role. These features are personal or ego-referents and may be unusual or idiosyncratic, e.g., one tooth, a bald head, beelips, beard, freckles, a crown; a bib, crib, pipe, jewelry, purse, etc.

0 No cues indicating the identity of the figure as described above.

1 Some cues (including fantasy aspects)

2 Specific cues

Features 2

Each drawing is scored for the presence of additional features indicating context or situation.

0 No cues

1 Person or place

Total Reorder Score -- Treorder

The child's attempts to reorder each set of pictures drawn are scored as follows:

1 Failure -- the child is unable to perform the task: places the drawings in a pile or hands them back to experimenter in one-to-one correspondence as presented to child.

2 Identifies some pictures but cannot order them -- the child recognizes individual drawings but cannot arrange them in a sequence.

3 Orders some drawings within a set, but not all.

4 Orders all the drawings in a set correctly.

The scores for the sets are then summed to obtain the total Reorder Score for each child.

Person Labeled -- Perlabel

The child's attempts to label the sets of drawings as to person are scored as follows:

1 All sets incorrectly labeled.

2 At least one set correctly labeled.

3 All sets correctly labeled.

Verbalizations

The comments for each drawing were coded as to type and the number of kinds of categories used by each child were noted. Totals were also obtained for overall verbosity.

0 No comments

1 Affective -- she's happy, looks like a monster; oh -- scary!

2 Cognitive -- indicates awareness of relationship between age, stage of development, and size: you're bigger as a teen than as a Baby; a baby is very small, has little eyebrows.

3 Functional -- indicates context or situation associated with age or stage of development: just out of Mommy's tummy; he's at a birthday party.

4 Descriptive -- indicates appearance: I have ovally head; Mom has long hair.

5 Family -- indicates history or personal memories of family members: my grandma used to take me berry-picking; he had a dog when he was little.

6 Fantasy -- personal preoccupation related or not to drawing, idiosyncratic or irrelevant: these are turtles; this tooth, it's flying up into the sky.

7 Task-related -- indicates underlying conceptual problems, affective or cognitive difficulties, concerns about drawing performance; I didn't know Mom then; Mom was never a baby; I can't do this. Or, indicates positive attitude to task: I like to draw this; this is a good one.

8 Inappropriate -- about size: (about a baby) Big! Big feet!

9 Appropriate -- about size to an inappropriate drawing: (about Dad Now) I'm drawing him small but he's really the biggest.

Identity Questions

Name If you had a different name, would you still be you?

1 No -- I'd be someone else

2 Transitional -- yes, then no, uncertain

3 Yes -- I'd still be me

Gender Could you be a (boy) (girl) if you wanted to?

1 Yes -- could be the opposite sex

2 Transitional -- yes, then no, uncertain

3 No -- sex cannot change

Identity-Awareness How do you know you're you?

0 Don't know, fantasy

1 Because I'm me

2 My name, my voice

3 Psychological trait -- I'm nice

4 Physical features

5 Actions, complex behaviors -- I wash my hair, I feel, I see

6 4 and 5 -- physical features and complex behaviors

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