

INFORMATION TO USERS

The most advanced technology has been used to photograph and reproduce this manuscript from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 9108119

Body image in pregnancy: An attachment perspective

Huganir, Linda Snyder, Ph.D.

City University of New York, 1990

U·M·I

300 N. Zeeb Rd.
Ann Arbor, MI 48106

BODY IMAGE IN PREGNANCY: AN ATTACHMENT PERSPECTIVE

by

LINDA SNYDER HUGANIR

A dissertation submitted to the Graduate Faculty in Psychology
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy, The City University of New York.

1990

This manuscript has been read and accepted by the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

6/26/90
Date

Arietta Slade
Chair of Examining Committee

June 27 1990
Date

Herbert D. Saltzstein
Executive Officer

Arietta Slade, Ph.D.

Steven Tuber, Ph.D.

David Schretlen, Ph.D.

Supervisory Committee

The City University of New York

Abstract

BODY IMAGE IN PREGNANCY: AN ATTACHMENT PERSPECTIVE

by

Linda Snyder Haganir

Adviser: Professor Arietta Slade

Pregnancy is an ideal time to study body image in women because it is the only time in adult life when dramatic bodily changes occur under normal circumstances. Previous research has largely ignored differences among pregnant women in their body image attitudes. The present study investigated the relationship between a woman's history of attachment relationships and her body image during pregnancy.

Eighteen primiparous women in their last trimester of pregnancy were given a semi-structured Pregnancy Interview, designed to elicit feelings and attitudes about their pregnant bodies. Additional instruments included a Body Image Questionnaire, the Rorschach Inkblot Test, and a Pregnancy Symptom Checklist. Subjects were then given the Adult Attachment Interview (George, Kaplan and Main, 1985), yielding an attachment classification of Secure/Autonomous, Insecure/Dismissing or Insecure/Preoccupied with respect to attachment.

A strong relationship was found between a woman's attachment classification and her affective response to her pregnant body. Women classified as autonomous responded to their pregnant bodies with delight and/or acceptance and enjoyed their pregnant appearance. Subjects classified as dismissing had trouble adjusting to their pregnant appearance and had a negative body image during pregnancy. Women

classified as preoccupied were extremely focused on their pregnant bodies and often vacillated between strong positive and strong negative feelings about their pregnant appearance. Other measures of body image, such as Barrier and Penetration scores on the Rorschach, self-reported body cathexis, and number of somatic symptoms did not differentiate among the three attachment groups. It is argued, however, that the semi-structured clinical interview is a more sensitive measure of the affective component of body image.

These results suggest that women do vary in their body image experiences during pregnancy and that these differences may be attributable to differences in attachment history. There is strong evidence in the literature that patterns of attachment are transmitted inter-generationally and that insecure attachments in infants and children are associated with poorer socioemotional outcomes. The findings in the present study suggest that pregnancy is a critical phase in the development of mother-child attachment.

Acknowledgements

I am deeply indebted to the members of my dissertation committee for their contributions to this project: To Arietta Slade, for introducing me to the field of attachment research and for her mentorship, encouragement and support over the past six years; to Steve Tuber, for his advice and helpful guidance throughout this project; and to David Schretlen, for his invaluable advice, assistance and moral support during the writing of this manuscript.

Many others have contributed to the completion of this project. I am grateful to the graduate students working on the Pregnancy Project who interviewed subjects and who transcribed and coded much of the data. I am particularly indebted to Allison Sitrin, Coordinator of the Pregnancy Project, for her assistance in making available the data for my study. I am also grateful to Laura Rachuba and Lisa Smeiker for their assistance in coding the body image data and to Anne Hillstrom for her invaluable statistical expertise and consultation.

Most of all, I would like to thank my family, without whom I could never have completed my doctorate: To Janet and Ed Snyder and George Haganir, for their generous support in helping me manage my family life during the past six years; to my children, Nicole and Adam, for lovingly tolerating my many moments of distraction and preoccupation with this work; and most of all, to my husband, Rick, for his never-ending love, support and confidence in me.

Table of Contents

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES.....	viii
INTRODUCTION.....	1
CHAPTER 1	
LITERATURE REVIEW.....	5
I. Definition of Body Image.....	5
II. Measurement of Body Image.....	8
A. Questionnaires.....	9
B. The Rorschach Inkblot Test.....	12
III. Body Image in Pregnancy.....	15
A. Theory.....	15
B. Empirical Research.....	17
1. Questionnaires.....	17
2. The Rorschach Test.....	20
3. Summary.....	23
IV. The Development of Body Image: Origins of Variation in Adult Body Image.....	23
A. The Classic Psychoanalytic Position.....	24
B. Contemporary Psychoanalytic Views.....	28
1. Separation-Individuation Theory.....	28
2. The Psychology of the Self.....	31
C. Summary.....	32
V. The Attachment Perspective.....	32
A. John Bowlby and Attachment Theory.....	33
B. Mary Ainsworth and the Strange Situation.....	35
C. Mary Main and the Adult Attachment Interview.....	38
VI. Summary of Literature Review.....	43
VII. Hypotheses.....	46
CHAPTER 2	
METHODS.....	50
I. Subjects.....	50
II. Procedures.....	52

III. Instruments and Measures.....	52
A. The Adult Attachment Interview.....	52
B. The Pregnancy Interview.....	53
C. Body Image Questionnaire.....	55
D. Rorschach Inkblot Test.....	55
E. Brief Symptom Inventory.....	57
F. Pregnancy Symptom Checklist.....	58
G. Wechsler Adult Intelligence Scale-Revised.....	59
CHAPTER 3	
RESULTS.....	60
I. Subject Characteristics.....	60
II. Attachment and the Pregnancy Interview.....	60
III. Attachment and Body Cathexis.....	63
IV. Attachment and the Rorschach.....	64
V. Attachment and Symptomatology During Pregnancy.....	67
CHAPTER 4	
DISCUSSION.....	73
I. Attachment and Body Image on the Pregnancy Interview.....	74
II. Attachment and Other Measures of Body Image.....	83
A. Body Cathexis.....	83
B. Body Boundary Phenomena.....	84
C. Psychiatric Symptomatology.....	86
D. Pregnancy Symptomatology.....	87
III. Additional Findings.....	87
A. Attachment and Cognitive Abilities.....	87
B. Attachment Stability During Pregnancy.....	88
IV. Limitations of the Study.....	89
V. Recommendations for Future Research.....	90
VI. Conclusions.....	90
APPENDICES	
APPENDIX A.....	93
APPENDIX B.....	101
APPENDIX C.....	117
APPENDIX D.....	128
REFERENCES.....	132

List of Tables

Table	Page
1 Summary of Subject Characteristics.....	61
2 Pre-Pregnancy Body Image by Attachment Classification.....	62
3 Body Image During Pregnancy by Attachment Classification.....	62
4 Mean Body Cathexis Scores.....	65
5 Change in Body Cathexis During Pregnancy.....	65
6 Mean Rorschach Responses by Attachment Classification.....	66
7 Mean BSI Raw Scores by Attachment Classification.....	68
8 BSI T-Scores by Attachment Classification.....	70
9 Mean Pregnancy Symptom Checklist Scores by Attachment Classification.....	71

Body Image in Pregnancy: An Attachment Perspective

Body image refers to the images, feelings and attitudes an individual has about his or her own body. It is a psychological experience that involves one's subjective experience of the body, as well as the unique way he or she has organized these experiences (Fisher and Cleveland, 1968). Body image is a fundamental aspect of ego development that grows out of one's early social relationships and influences the manner in which an individual interacts with and interprets the world.

Body image is an important issue in the psychology of women today. We live in an era in which there are both subtle and overt cultural pressures on women to be thin, attractive and physically fit. While strong cultural biases about appearance are not new, today's women are the first to be exposed at such a young age (Wooley and Kearney-Cooke, 1986). They are raised by mothers who are often unhappy with their own bodies and who show concern about the size and shape of their daughters' bodies from the early days of infancy.

As a result of these cultural pressures, body image dissatisfaction among women is widespread. Over 30 percent of all adolescent and adult women report negative attitudes about their bodies (Butters and Cash, 1987). Among adolescent women alone, 80 percent have started dieting by the age of 18 (Wooley and Kearney-Cooke, 1986). The incidence of eating disorders has dramatically increased in recent years; as many as 20 percent of all college-age women suffer from anorexia nervosa or bulimia (Wooley and Kearney-Cooke, 1986). By the time women reach adulthood, they have learned that they can never be "too thin" and that their happiness in life depends, at least in part, on their ability to attain the ideal

body shape.

Historically, the study of body image has been limited to the domain of neurologists and psychiatrists interested in the body image distortions produced by neurological and psychiatric illnesses. In addition, psychoanalysts have concerned themselves with the theoretical issue of body image development and the reactions of patients to pathological disruptions of the body image. The study of body image attitudes in normal individuals, however, has been largely neglected, in part, because the body attitudes of relatively healthy persons are not as visible as those of disturbed individuals (Fisher and Cleveland, 1968).

Pregnancy provides a unique opportunity to study normal body image attitudes among women because it is the only period in adult life when dramatic bodily changes occur under non-illness-related circumstances (Leifer, 1980a). Because of the magnitude of these changes, women are likely to consciously focus on their bodies throughout pregnancy. Body image attitudes may also be more accessible at this time because pregnancy stirs up childhood memories, feelings and attitudes about the self and about a woman's relationship to her own mother (Leifer, 1977; Lester and Notman, 1986; Pines, 1972, 1982).

Although it has long been known that body image grows out of a child's earliest relationships with parenting figures, the specific factors which influence adult body image are not known (Kolb, 1975). Attachment theory, which focuses on the quality of early social relationships, provides an excellent framework for exploring the development of body image. Bowlby's (1969, 1980) attachment theory holds that human infants, like those of a variety of mammalian and avian species, are predisposed to form bonds or attachments to their parents. The empirical work of Ainsworth and her

colleagues (Ainsworth, Blehar, Waters and Wall, 1978) demonstrated that there are variations in the quality of such relationships and three principal patterns of attachment have been reliably documented (Bowlby, 1988). A secure attachment relationship is promoted by sensitive handling, responsiveness and comfort with physical contact on the part of the caregiver during the first years of life (Ainsworth, 1979). Secure attachment is predictive of the child's healthy emotional adaptation (Bowlby, 1988). Two patterns of insecure attachment are promoted by family conditions that are insensitive or inconsistent; such patterns are predictive of disturbed child development (Bowlby, 1988).

Attachment researchers have also discovered that adult modes of organizing, remembering and representing early experience evolve out of early family circumstances and are predictive of adult psychological functioning (Main, Kaplan and Cassidy, 1985). Main and her colleagues developed the Adult Attachment Interview (AAI; George, Kaplan and Main, 1985), an in-depth exploration of an adult's current "state of mind" with respect to attachment relationships, which presumably reflects the individual's internal representation of early experiences with attachment figures.

The present study was designed to explore variation among pregnant women in their body image experiences during pregnancy from an attachment perspective. This study is part of a large, longitudinal project investigating patterns of attachment in pregnant women, new mothers and their infants. For the present study, women were interviewed three times during the third trimester of their first pregnancies. Over the course of the three sessions, information was collected from a pregnancy interview, a body image questionnaire and psychological testing about adaptation to

pregnancy, body image during pregnancy, and general psychological functioning. In addition, attachment was measured using the AAI (George, et al., 1985).

The central hypothesis of this study is that variation in body image experience during pregnancy, as measured by clinical interview, questionnaire and psychological testing, is associated with differences in one's internal representation of the quality of early object relationships, as measured by the AAI. Specifically, it was expected that security of attachment would be associated with less preoccupation with the body during pregnancy and a more stable and positive body image experience. In contrast, women with insecure representations of early attachment relationships were expected to be distressed by and conflicted about bodily changes during pregnancy.

This study characterizes the ways in which women differ in their body image experiences during pregnancy and links these differences to the quality of the pregnant woman's early relationships with attachment figures. While the relationship between body image in pregnancy and later maternal adaptation is not yet known, it is expected that successful adaptation to body image experiences during pregnancy will facilitate the development of a healthy attachment relationship between mother and child and ultimately lead to positive socioemotional development in the child.

Chapter 1

LITERATURE REVIEW

I. Definition of Body Image

In the fields of psychology, psychiatry and neurology, the terms body image, body scheme (or body schema), body percept, body ego and body experience are often used loosely and interchangeably. This leads to confusion which stems, in part, from the fact that body image can be thought of as at least two separate constructs or one construct with two major components. The cognitive or perceptual component involves the experience of the position of the body in space and the accuracy with which one judges the physical properties of the personal body (Shontz, 1969). This component of body image has also been called the "postural model of the body" (Schilder, 1950). The second component of body image is the attitudinal (Venezia, 1972) or affective component. It involves the way one feels about his or her body and the way in which such attitudes influence behavior. From this latter perspective, body image is seen as an integral aspect of personality.

Historically, the first well-elaborated theory of body image was published by the neurologist Henry Head in 1920. He, along with other neurologists and surgeons at that time, were attempting to explain their observations that individuals who suffered traumatic or surgical dismemberment often failed to perceive their bodies realistically after the visible or apparent loss of a body part. Head suggested that each individual slowly constructs a picture or model of his or her own body and then judges any change in posture or position relative to this model or schema. These schemata are flexible reference models which are constantly

incorporating new sensory data and reorganizing accordingly. He maintained that body schemata are strictly neurophysiological without a psychological component. Experiences of distorted body perception, such as anosognosia or phantom limb phenomena, could be explained on the basis of neurological damage affecting existing schemata.

Head's ideas were extended by the psychiatrist Paul Schilder (1950) who, in contrast to Head, believed that, although body experience is fundamentally physiological, the personality always guides and influences perception. Schilder proposed that the mental picture each individual forms of him or herself has a strong emotional component and symbolic significance. He relied heavily on psychoanalytic concepts in explaining the tendency to concentrate psychological energy in different erogenous areas of the body at different stages of development (Shontz, 1975). He believed that body image is molded by social interactions and that the quality of these interactions determines the adequacy of body image development (Fisher and Cleveland, 1968). He suggested that the disturbances of body experience which accompany many neurological syndromes are "symbolic expressions of problems that patients have failed to solve successfully" (Shontz, 1975, p. 66). Schilder (1950) was the first to suggest that body image extends outward beyond the body to clothing and accessories.

Seymour Fisher has made the most recent theoretical and empirical contributions to the study of body image. He has argued (Fisher, 1986) that body image is a multidimensional construct with both perceptual and psychological components. At any given moment, we may turn to our bodies to monitor our position in space or the integrity of our boundaries, or "for guidance not only with regard to matters like whether we are tired

or thirsty, but also whether to get close to a particular person, or to avoid certain social situations, or to cultivate specific kinds of fantasies" (Fisher, 1986, p. xiv).

Fisher (1986) has suggested that children internalize a model of their earliest relationships with others that is "heavily phrased in a body vocabulary" (p. xiv). This leads them to respond to interpersonal interactions by translating such events "into patterns of feeling at pertinent body sites and these patterns, in turn, feed back to and modulate [these models]" (p. xiv).

Body image may overlap with self-image in that it involves a complex network of feelings, attitudes and fantasies an individual has about his or her identity, life role and appearance. Fisher and Cleveland (1968) state:

We definitely consider the body image to be a condensed formulation or summary in body terms of a great many experiences the individual has had in the course of defining his identity in the world. Illustratively, if an individual perceives his body as ugly and depreciated, it would be assumed that this is a body representation of experiences in some milieu where people reacted to him as if certain aspects of his behavior were ugly and to be depreciated. There is, of course, implicit here the hypothesis that the body image is a sensitive indicator which registers many of the individual's basic social relationships, especially those early involved in his development of a sense of identity. (p. 111)

Most research in psychology has found little difference between men and women. The body image literature, however, reveals that the two sexes have very different modes of perceiving their bodies and organizing body experience. Fisher (1986) reports that there is "fairly good evidence that men and women have contrasting perspectives about the role of the somatic self in their total identity" (p. xiv). These differences probably reflect both differences in socialization as well as biological

factors. Generalizations about body image based on uniquely feminine experiences, such as pregnancy, may not necessarily apply to men.

For the purposes of the present study, body image was defined, following Fisher, as a multidimensional construct involving cognitive aspects of body perception as well as attitudes and emotions in relation to the body which are shaped by personality. Some aspects of body image are easily observable and accessible to the individual, while other aspects are more unconscious and can only be investigated through indirect measures (Fisher, 1986). This study investigated both conscious and unconscious aspects of body image using a variety of direct and indirect techniques which will be reviewed below.

II. Measurement of Body Image

Because body image is an integral part of the developing ego (see section IV below), measures of body perception and body attitudes are likely to be important predictors of how individuals will interpret and react to a variety of life situations (Fisher, 1986). There is no single or unitary measure of body image, however, because the organization of body image is multidimensional (Fisher, 1986). Numerous techniques have been devised to measure the various components of the body image construct and the more widely used approaches will be reviewed here. Techniques which focus exclusively on measuring the perceptual dimension of body image (e.g., body size estimation and reaction to distorting lenses or mirrors) or techniques which are highly unreliable (e.g., human figure drawings) were not used in the present research and will not be included in this review.

A. Questionnaires

The questionnaire is perhaps the most commonly used measure of body image. Questionnaires typically focus on the attitudinal component of body image and assess conscious feelings about appearance and attitudes toward the body. Questionnaires are based on the assumption that there are idealized standards for appearance within a culture to which individuals attempt to conform. Investigators try to characterize the modal standard for the ideal body within a particular group or culture by asking subjects to rate how positively or negatively they regard various parts of their bodies. Results of one large national survey (Berscheid, Walster and Bohrnstedt, 1973) indicated that only 55% of men and 45% of women were satisfied with their overall appearance.

One of the most frequently used measures of body satisfaction is Secord and Jourard's (1953) Body-Cathexis scale, developed using a sample of 125 college students. The authors defined body cathexis as "the degree of feeling of satisfaction or dissatisfaction with the various parts or processes of the body" (p. 343). They hypothesized that body satisfaction was related to self-satisfaction and that "negative body attitudes and feelings were associated both with feelings of anxiety and feelings of insecurity" (Clifford, 1971, p. 120).

The Body-Cathexis questionnaire asks subjects to rate 46 items about their body parts, bodily processes, and energy and vitality levels on a 5-point Likert-type bipolar scale. Each subject's ratings are then summed and divided by 46. The resulting score indicates the degree and direction of the subject's overall body satisfaction. The Body-Cathexis scale has been shown to have good split-half and test-retest reliabilities (see Fisher, 1986 for a review).

The Body-Cathexis scale and its variations have been used in a wide range of applications (see Fisher, 1986 for a thorough review) and has been shown to be a valid measure of body satisfaction. Among college women, Jourard and Secord (1955) demonstrated a significant correlation between body cathexis and measured size of body parts such that positive cathexis is associated with relatively small size (with the exception of bust size for which the correlation is negative). In addition, they demonstrated that individual attitudes are significantly influenced by the degree to which measured or perceived size deviates from ideal size. Females are consistently shown to express more dissatisfaction with themselves and their bodies than males (Clifford, 1971). Typically, since 1967, a modified, short form of the Body-Cathexis scale, ranging from 20-25 items has been used (Seggar, McCammon and Cannon, 1988). Seggar, et al., 1988 found, among college students, a moderate positive correlation between body cathexis and weight discrepancy, such that women whose actual and ideal weights were the least discrepant had more positive body images. Subjects who were heavier than desired were considerably less satisfied with their bodies than those of "normal" weight women.

While body cathexis has been shown to be influenced by how closely an individual perceives that he or she approximates the current standard for the "perfect" body, other factors have also been shown to be important in mediating body image. In an early study, Secord and Jourard (1953) were able to demonstrate a significant correlation between body cathexis and satisfaction with self. Numerous other studies (Johnson, 1956; and see Fisher, 1986 and Seggar, et al., 1988 for a complete review) have corroborated this positive relationship and linked body satisfaction to both self-reported and semi-projective indices of self-esteem. Secord and

Jourard (1953) also demonstrated a negative correlation between body satisfaction and measures of anxiety and insecurity.

Fisher (1986) reports that body satisfaction has been correlated with physical health, emotional adjustment (on the MMPI), and school adjustment; women who perceived their mothers' childrearing practices as democratic were more satisfied with their bodies; and body satisfaction has been correlated with lower levels of menstrual discomfort, less sexual guilt and career vs. traditionally feminine orientation. Johnson (1956) found a moderate inverse relationship between body cathexis and somatic symptomatology. Interestingly, body satisfaction, as measured by the Body-Cathexis scale, has not been found to be related to overall adaptation to pregnancy, when pregnant women as a whole have been investigated (Fisher, 1986).

Another type of questionnaire, a word association test using homonyms, was devised by Secord (1953) as an additional measure of body cathexis. Subjects were read pairs of words, only one of which was related to the body. They were then asked to respond with the first word that came to mind after oral presentation. Three groups could be discriminated on the basis of number of responses associated with the body: a) a narcissistic group who overvalued and thus tended to overprotect the body, b) an anxious group who focused on bodily concerns, and c) overcontrolled individuals who tended to deny bodily concerns (Kolb, 1975). Using the Homonym Test together with the Body-Cathexis scale, Secord (1953) reported that the narcissistic group gave numerous responses on the word association test and scored high for body satisfaction, the anxiety group scored high on word association and low on body satisfaction, and the overcontrolled group scored low on both tests (Kolb, 1975). These results

suggest that body image is mediated, at least in part, by factors involved in the development of personality.

B. The Rorschach Inkblot Test

The Rorschach test has been used as a projective test of body image to elicit unconscious attitudes and percepts of body image. Fisher and Cleveland collected Rorschach data on patients with arthritis and noted that there were a large number of unique responses in which special emphasis was placed on the "containing, protective, and boundary-defining qualities of the periphery of percepts" (Fisher and Cleveland, 1968, p. 55). They suggested, based on these data, that the way an individual perceives body boundaries is an important aspect of body image.

Fisher and Cleveland (1968) argued that there was a literature to support the importance of "body-boundary phenomena" in personality organization. In particular, they pointed to Freud's emphasis on the attitudes individuals have about their body openings. They also reviewed clinical data which supported the idea that people vary with respect to the degree of openness and penetrability vs. firmness and definiteness they ascribe to their bodies (Fisher, 1986; Fisher and Cleveland, 1968). They argued that the Rorschach test is an ideal source of body-boundary data because it provides "good opportunity to project images which differ in boundary attributes" (Fisher and Cleveland, 1968, p. 57).

Having chosen the Rorschach as the method for eliciting data on the body boundary, Fisher and Cleveland sought to demonstrate that "differences in boundary attributes of images elicited by ink blots are correlated with differences in the manner in which individuals perceive their body boundaries" (Fisher and Cleveland, 1968, p. 57). In reviewing

the Rorschach responses of the original arthritic subjects, they found that responses which referred to boundaries or peripheries could be placed in one of two broad categories. First, responses which were characterized by an emphasis on the protective, containing or covering functions of the periphery (Shontz, 1969) were labeled "Barrier responses." These responses made reference to the definiteness of boundaries, but could take very diverse forms, such as noting the fuzziness of the skin of an animal, the decorative pattern of a surface, or the clothing worn by a person (Fisher and Cleveland, 1968). Examples of Barrier responses are a mummy wrapped up, men in armor, a cave with rocky walls, and a vase (McCrea, Summerfield and Rosen, 1982). The second group of responses emphasized the destruction, evasion or bypassing of boundaries (Shontz, 1969). These responses made reference to weakness, lack of substance and penetrability and were thus labeled "Penetration of Boundary responses." Examples are a bullet penetrating flesh, an X-ray of the inside of the body and rotting wood (McCrea, et al, 1982).

Barrier and Penetration scores have been used in numerous studies and evidence has accumulated to substantiate that "the way people depict the boundaries of their ink blot responses mirrors how they feel about their own body boundaries" (Fisher, 1986, p. 330). Studies of scoring objectivity have revealed inter-rater reliability coefficients in the high .80s and .90s for both Barrier and Penetration scores. Test-retest reliabilities average in the .70 range (see Fisher and Cleveland, 1968; Fisher, 1970; and Fisher, 1986 for a thorough review).

It is important to control for total number of responses when comparing subjects because there is a significant positive correlation between boundary scores and number of responses given. Studies using this

technique typically report mean Barrier scores in the 7-9 range; Penetration score means are typically in the 3.5-5.5 range (Fisher, 1986).

Empirical evidence using the Barrier and Penetration scores is consistent with the theoretical notion that the child's awareness of his or her own body gradually evolves and becomes more complex, more differentiated and more sharply bounded (Fisher, 1986). The boundary dimension of the body image has also been found to be associated with type of psychosomatic illness (Fisher and Cleveland, 1957, cited in Kolb, 1975). Individuals with definite boundaries are likely to develop symptoms involving the exterior of the body (e.g., arthritis, dermatitis and external cancers) whereas persons with indefinite boundaries are more prone to symptoms involving internal organs (e.g., gastrointestinal disturbances and internally situated cancers). This study also found that patients with definite boundaries on the Rorschach adjusted significantly better to handicaps and crippling caused by disease or amputation.

Other studies (see Fisher and Cleveland, 1968 and Fisher, 1970) have reported that individuals with high Barrier scores are likely to show high levels of aspiration, tolerance of stress and the ability to take part in group activities. Normal and neurotic individuals give more Barrier and fewer Penetration responses than schizophrenics. Fisher (1970, cited in Fisher, 1986) also reports that parental over-protectiveness, intrusiveness and authoritarianism are associated with less body boundary structuring in children and, presumably, decreased body security.

III. Body Image in Pregnancy

A. Theory

Pregnancy is a unique period in the life of women when dramatic physiological, psychological and social changes, as well as radical alterations in the body and appearance, all occur simultaneously (Leifer, 1980a). For many women, it is a period of dramatic biological and psychological upheaval. In spite of the importance of sexuality in psychoanalytic theory and clinical practice, the psychoanalytic literature on pregnancy, until very recently, has been relatively limited (Notman and Lester, 1989).

Some of the first authors to give pregnancy serious attention were Grete Bibring and Therese Benedek. Benedek (1959, 1970) proposed that pregnancy is a critical developmental phase for women, during which self and object representations which grew out of the early mother-child relationship are reactivated. The ability of the new mother to empathize with her child depends on the reorganization of the experience of early infancy which is stirred up during pregnancy (Benedek, 1959).

Bibring (Bibring, Dwyer, Huntington and Valenstein, 1961) also viewed pregnancy as a maturational crisis which revives psychological conflicts from early developmental stages. She emphasized that the profound psychological changes that occur during pregnancy are normal rather than pathological. Successful resolution of this emotional disequilibrium involves finding new and more adaptive solutions to old conflicts.

More recently, Dinora Pines has written about the intrapsychic experience of pregnancy. She suggests that for the woman "whose experience with her own mother has been 'good enough', the temporary regression to a primary identification with the omnipotent, fertile, life-

giving mother, as well as with herself as if she were her own child, is a pleasurable developmental phase in which further maturation and growth of the self may be achieved" (Pines, 1982, p. 311). Specifically, for these women, a gradual progression is seen from emotional investment in the fetus as an "unseen part of the mother's body and an extension of herself" (Pines, 1972, p. 334) to cathexis of the fetus or child as a separate person (Lester and Notman, 1986). For other women, the regressive experiences of pregnancy will be painful and frightening, and childhood fantasies will not be successfully integrated into adult reality. When such fantasies are not repressed, the new mother's relationship to her own child may show pathological features (Pines, 1972).

Adaptation to profound bodily changes is one of the most challenging psychological tasks of pregnancy. This is due to the marked physical and hormonal changes that occur as well as the body image issues which are reactivated by the revival of the woman's earliest experiences with the maternal object. According to Notman and Lester (1989), "tolerance of this benign intrusion and the growth of the baby-within requires adaptation to changing internal boundaries between self and other, as well as changes in body image" (pp. 150-151).

Bodily changes during pregnancy facilitate the achievement of a further stage in the process of separation and individuation (Pines, 1989). Pregnancy reinforces bodily a woman's identification with her own mother and "affords an experience of differentiation from her mother's body, which once contained her own" (Pines, 1989, p. 237). As described earlier, the degree to which ambivalent feelings toward the mother and negative feelings about the self, stirred up by changes in body image, are

resolved during pregnancy significantly affects a mother's adaptation to her baby.

B. Empirical Research

A significant body of research has focused on body perception and body attitudes in pregnancy. Most of these studies address the differential response to body image changes at each stage of pregnancy or, alternatively, compare pregnant women, as a whole, to women in the post-partum state or to non-pregnant controls. Differences among pregnant women have been largely ignored or unelaborated.

1. Questionnaires

Venezia (1972) studied 40 multiparous women and attempted to find differences in body attitude between pregnancy and the post-partum state. Using interview and questionnaire data, he did not find that, as a group, women evaluate their bodies more negatively during pregnancy than after delivery. He did find, however, that women who are more extraverted had more negative attitudes toward their bodies during pregnancy than those who were less extraverted. Venezia suggested that this is a function of the reduction in the frequency of social activities usually associated with the last trimester of pregnancy. An alternative explanation of these results is that extraverted women, because of their external focus, are more acutely aware of bodily changes, whereas introverted women may respond more to the internal or emotional changes during pregnancy.

Leifer (1977, 1980a, 1980b) interviewed and evaluated 19 primiparous women four times during pregnancy and three times in the post-partum period. She administered a modified Jourard-Secord Body-Cathexis scale

throughout pregnancy and found that "irrespective of the degree of satisfaction with the body prior to pregnancy, the body changes of pregnancy evoked negative feelings. Women with less positive body images prior to pregnancy seemed to be more vulnerable to major changes in appearance" (Leifer, 1977, p. 71). Over the course of pregnancy, body cathexis decreased.

At each time point, based on interview data, women were placed into one of four categories descriptive of their current feeling about their appearance:

- (a) Positive (expression of pride and pleasure in pregnant appearance), (b) Accepting (changes in appearance accepted without either strongly positive or negative feelings), (c) Ambivalent (conflicted feelings about pregnant appearance), and (d) Negative (intense dissatisfaction with pregnant appearance. (p. 71)

These data, like those of the Body-Cathexis scale, revealed that attitudes toward appearance become progressively more negative over the course of pregnancy.

When Leifer (1977) compared these two body image measures to an attitude toward pregnancy measure derived from interview material, she found that

women with high body-cathexis prior to pregnancy, and with positive attitudes about being pregnant, were the only women who were unqualifiedly positive about their pregnant appearance. Regardless of the degree of body-cathexis before pregnancy, however, women who were ambivalent or negative about their pregnancies reacted negatively to the changes in appearance during pregnancy. (p. 72)

In addition, Leifer (1980b) administered a Pregnancy Symptom Checklist during each trimester of pregnancy. She found that women whose overall index of psychological functioning in early pregnancy was high reported lower levels of somatic symptomatology and took pride in their pregnant appearance later in pregnancy. In contrast, women whose overall level of

psychological functioning in early pregnancy was moderate to low reported more somatic symptomatology and expressed more ambivalence about their pregnant bodies.

Watts (1980), using the Body-Cathexis scale, did not find that pregnant women showed greater fluctuations in body image compared to non-pregnant controls. Body satisfaction scores were positively correlated, however, with income, occupation and level of education.

Gordon (1976, cited in Fisher, 1986) reported that in 138 first-time pregnant women, body satisfaction on the Jourard-Secord measure was negatively correlated with anxiety level. Interestingly, there was no relationship found between presence or absence of "maladaptive physiological responses" and body satisfaction, suggesting that body image in pregnancy is not a function of the number of negative physical symptoms experienced during pregnancy.

Jamieson (1980; cited in Fisher, 1986), based on interview data, found that pregnant women "who were least anxious had a previous history of being able to use their body effectively and of having experienced it as competent, capable, and strong" (Fisher, 1986, p. 239). Jamieson speculated that women who felt that their bodies were competent may be those whose relationships with their mothers were the least conflictual.

A link between body image and overall adaptation to pregnancy is suggested in a study by Ware (1986). She interviewed 43 middle-income primiparas about their understanding of their attachment relationships with their mothers and about adaptation to pregnancy. Although she did not investigate body image per se, she found that women with secure attachments to their mothers were more comfortable with their feminine qualities, felt closer to their unborn babies and were able to visualize

themselves more clearly and confidently in a mothering role.

Zachariah (1984), using a variety of self-completed structured questionnaires, also confirmed that the quality of a pregnant woman's attachment relationship with her mother was strongly related to her psychological well-being during pregnancy. Body image, however, was not investigated in this study. Similarly, Grunebaum (1990) reported a moderate relationship between attachment classification and capacity to negotiate the psychological tasks of pregnancy.

2. The Rorschach Test

Fisher (1986; Fisher and Cleveland, 1968) argues that body boundary phenomena are good indicators of an individual's propensity to handle stressful or threatening situations effectively:

Our model of the high Barrier individuals suggests that he would have particularly facility for maintaining his equilibrium in the midst of stress. His well-defined boundaries provide him with protection and a base of operations, as it were. The low Barrier person would, on the contrary, be expected to be vulnerable to stress and to find it difficult to maintain his own course through the complications and confusion associated with the stress. (1968, p. 137)

As described in an earlier section of this chapter (II-B), there is a connection between adequate boundary definiteness and the ability to cope with severe damage or trauma to the body" (Fisher and Cleveland, 1968). Barrier scores, for example, have been found to positively correlate with degree of adjustment to physical injury and incapacitation. The Penetration score has been much less powerful as a predictive tool, in that it is significantly correlated with how poorly individuals adjust to some injuries but not others.

Pregnancy should have a significant impact on body boundaries because

it involves drastic bodily changes within a relatively short period of time (Fisher, 1986). There have been several studies, based on Barrier and Penetration scoring of the Rorschach, investigating body boundary shifts in pregnancy. McConnell and Daston (1961) administered the Rorschach test to 24 multiparous subjects during their eighth or ninth month of pregnancy and again three days after delivery. While Barrier scores did not change following parturition, there was a significant decrease in Penetration scores after delivery. The authors suggested that a new mother feels less vulnerable than a pregnant woman and thus the shift in Penetration scores; whereas Barrier scores may refer to slower changing aspects of body image.

In the same study, the researchers used an interview to assess attitude toward pregnancy and the Osgood Semantic Differential (Osgood, Suci and Tannenbaum, 1957) to measure body image. They determined that women with positive attitudes toward pregnancy evaluated their bodies positively during pregnancy and negatively after delivery, whereas women with negative attitudes toward pregnancy tended to evaluate their bodies negatively during pregnancy and positively afterwards. The implication of these results, according to the authors, is that a woman with a generalized negative experience during pregnancy and contrasting positive body image after pregnancy will be unlikely to show qualified acceptance of her child because she will be so preoccupied with efforts to regain her figure.

Finally, McConnell and Daston compared attitudes toward pregnancy with the Rorschach measures of body image. Subjects with positive attitudes toward pregnancy had higher Barrier scores than those who reported negative attitudes toward pregnancy. Although subjects with positive

attitudes toward pregnancy also tended to have lower Penetration scores, the difference was not statistically significant. The authors speculate that with a larger sample size, this effect might have reached significance.

McConnell and Daston conclude that firm body boundaries represent ego strength and thus play a major role in determining overall adjustment to pregnancy. According to the authors, it is not likely that a positive attitude toward pregnancy actually raises the number of Barrier responses, "but rather that both may be functions of a factor which might be called ego-strength or maturity" (McConnell and Daston, 1961, p. 455). The finding that Barrier scores remain intact while Penetration scores increase during pregnancy provides further support for Bibring's (1961) notion that pregnant women experience intense emotional disequilibrium during pregnancy without impairment of ego functioning.

Fisher (1986) in a review of the remaining studies of body-boundary phenomena in pregnancy concludes that, while the data are equivocal, there appears to be a general shift in boundaries as women move from the pregnant state to the non-pregnant state. Three studies show a decline in Barrier scores and three show a decrease in Penetration scores after delivery. At the same time, when pregnant women are compared to non-pregnant controls, two studies found that mean Barrier scores did not differ, while two found them to be lower in pregnant women. The contradictory findings suggest that boundary definition in pregnant women as well as in non-pregnant individuals is mediated by a variety of psychological factors. It is not likely that there will be a single profile of body-boundary phenomena in pregnancy.

3. Summary

Taken together, the results of studies on various components of body image, measured in numerous ways, are confusing. For almost every study that finds a particular effect, another study fails to find the same effect. It does appear, however, that many pregnant women experience their bodies as more distorted and their appearance more negatively than do non-pregnant women (Fisher, 1986). McConnell and Daston's (1961) significant finding that women vary in their psychological response to pregnancy has been largely ignored. Most studies of pregnancy have failed to document individual differences in body image experience and continue to view pregnant women as a homogeneous group.

The specific factors that influence quality of body image in pregnancy are still unclear. Preliminary evidence suggests that personality attributes, such as extraversion/introversion and other factors such as pre-pregnancy body image, attitude toward pregnancy and the quality of a pregnant woman's attachment relationship with her own mother may contribute to such variation in body image experience. The primary goals of the present research will be the elucidation of differences among women in their body image experiences in pregnancy and characterization of the factors which underlie such differences.

IV. The Development of Body Image: Origins of Variation in Adult Body Image

The body image develops and is organized through the integration of several different kinds of perceptions beginning in the earliest stages of development (Kolb, 1975). Initially, the infant is exposed to proprioceptive sensory impressions as well as tactile and kinesthetic

sensations. Visual, olfactory, auditory, thermal, pleasure and pain stimuli also contribute to body image development but these are believed to be of secondary importance.

As the infant grows, the body image is continuously modified in response to developmental and sensory experiences. In particular, the body image is influenced by the socialization experiences of the individual beginning in the earliest days of infancy. The infant's attitudes toward her own body and body parts are greatly influenced by parental attitudes. The mother or primary caretaker's manner of touching, handling, holding, responding to and communicating with the child greatly affects the child's sense of her own body (Meyer, 1980; Schonfeld, 1966).

Body attitudes are also shaped by the individual's perceptions of and comparisons to the bodies of those around her (Kolb, 1975). When a child's body conforms to cultural and family expectations, she is likely to develop healthy body attitudes, whereas negative body attitudes may be the result of "overcompensatory mechanisms [which] frequently develop to obscure either actual or fantasied body defects when the child feels, or is made to feel, that his body fails to meet the expectations of those about him" (Kolb, 1975, p. 753). These latter attitudes are often seen in families in which body functioning and appearance are over-emphasized.

In the following sections, the intrapsychic development of body image will be discussed:

A. The Classic Psychoanalytic Position

Throughout his writings, Freud recognized the importance of body image in psychological development. In The Ego and the Id (1923/1960), he described body image as a fundamental aspect of ego development: "The ego

is first and foremost a body ego; it is not merely a surface entity but it is itself the projection of a surface" (p. 16). In an authorized footnote in the 1927 English translation of this volume, Riviere added that the ego is actually derived from the infant's bodily sensations, particularly those related to the surface of the body.

Initially, according to psychoanalytic theory, the child does not distinguish between her own body and the outside world (Fisher and Cleveland, 1968). Over time, however, as she experiences repeated separations from the mother and gradually discovers that the breast is not always available, the distinction between self and other develops (Linn, 1955). In the process of experiencing the frustration of not getting immediate oral gratification, the child discovers that parts of her own body can serve to relieve tension, thus giving her a first experience of identity and partial autonomy (Fisher and Cleveland, 1968).

There is progressive elaboration of the body image with psychosexual development (Fisher and Cleveland, 1968; Shontz, 1969). At different stages of development, certain areas of the body sequentially become important as sources of erogenous stimulation, viz., first the face and mouth, then the anal region, then the genitals, etc. (Greenacre, 1953). As the child learns to master the specific impulses which arise from each erogenous zone, aspects of the body image become consolidated (Fisher and Cleveland, 1968). The gratification of tensions at each phase of development contributes to a feeling of "total body adequacy" (Brown, 1959).

Early life is almost exclusively experienced through the body. In the first weeks of life, the infant's relationship to everything outside of the self is mediated through touch and through the mouth (Greenacre,

1958). Towards the end of the first year, the infant becomes capable of more active responses to others and objects and begins to use the arms and hands in conjunction with the eyes to reach the mouth.

In the second year, the child incorporates the external genital parts of self and others through the senses of touch and vision. In the third year, there is a gradual increase in genital feelings and internal sensations now combine with the "body imagery produced by visual and tactile appreciation of the own genitals and those of the other" (Greenacre, 1958, p. 617). At this stage of development, the child achieves the capacity for imagination and internal representation of bodily experiences.

The child's perceptions of the satisfying or unsatisfying experiences in the early mother-child relationship are perhaps most fundamental to the development of the body image (Brown, 1959). Erikson emphasized that the development of "basic trust" or the sense that the environment will adequately meet the child's needs is central to this process (Meyer, 1980). The body image symbolizes the "good" and "bad" aspects of the child's earliest object relationships and the degree to which such relationships are gratifying or frustrating.

As the ego continues to develop, these symbols become closely linked with particular emotions (Peto, 1959). In optimal circumstances, there is progressive neutralization of these emotions so that eventually, bodily sensations are "void of emotional coloring" (Peto, 1959, p. 230). Body image thus becomes emotionally divorced from feelings about the mother-child relationship, although regressions to earlier stages may occur. When the link between body image and emotions is not severed, adult life will be experienced in terms of the childhood body image (Brown, 1959).

According to Greenacre (1953), conditions which interfere with optimal body image development include severe and/or continuous disturbances of the mother-child relationship such as the mother who touches her child too much, the mother who handles her child as though it were contaminated (i.e., phobic mothers) or the mother who exposes her child to over-stimulating activities. Other traumatic conditions which may jeopardize the integrity of the early body image include actual changes in body nutrition (e.g., sudden weight change) and certain physical conditions which produce sensations of sudden changes in size (e.g., acute fevers, convulsions or severe rage states; Greenacre, 1953). In such circumstances, neutralization of the link between body image and object relations would not be expected to progress and frequent regressions to an "archaic body image" would be expected to take place (Peto, 1959).

Throughout life, individuals reinforce and maintain the sense of the own body image by associating with others who are similar to the self (Greenacre, 1958). The touches of others and the interest that others take in different parts of an individual's body are also important in the organization of the body image (Schilder, 1950).

The mother's relationship to her own body, the way in which she uses her body in her interactions with others (especially her child), and the role she assigns to the child's body in her relationship with the child further contribute to the organization of the child's body image. The child will learn to "relate to his body in the same way in which his mother relates and [has] related to it. The mother paves the way to the way in which the child will treat his own body" (Lussier, 1980, p. 182).

B. Contemporary Psychoanalytic Views

1. Separation-Individuation Theory

The work of Margaret Mahler further underscores the importance of the quality of early object relationships for the development of the body image. Mahler pioneered the notion that the "psychological birth" of the child is a slowly unfolding process of separation and individuation (Mahler, Pine and Bergman, 1975). It involves the child's psychological separation from a symbiotic relationship with the primary love object and the establishment of a differentiated relationship in which the child's individuality is emphasized. The child's experiences of his or her own body are particularly important in this process.

According to Mahler, the newborn is relatively unaware of external objects and demonstrates only "fleeting responsivity to external stimuli" (Mahler, et al., 1975, p. 43). Gradually, she becomes "dimly aware" of the "need-satisfying object." She experiences a fusion of boundaries with the mother and cannot differentiate between her own attempts and those of her mother to reduce tension. Physical or "coenesthetic" contact between mother and infant during this phase of development is important for the adequate libidization of the body, which, in turn, is crucial for healthy body image and ego development.

Beginning in the fourth or fifth month, the infant begins to differentiate or further distinguish between self and other via manual, tactile and visual explorations, especially of the mother's body. In the second half of the first year, the games that babies play with their mothers serve to further delineate the boundaries between the child's own body and that of the object. Mahler (Mahler, et al., 1975) emphasized the importance of the child's sense of "inner pleasure, due to safe anchorage

within the symbiotic orbit" (p. 53) and pleasurable contact with external stimuli for smooth differentiation and emerging self-representation. Serious disturbances during this subphase inhibit normal body image development (Anthi, 1986).

In the practicing period, the child makes her first explorations away from mother by crawling, walking holding on, and later, independent steps away from mother. As she experiments with moving away from and returning to the mother, awareness of physical separateness and ability to rely on self-initiated action are enhanced (Rothchild, 1979). Body-self boundaries are further augmented by the frequent falls and bumps which are characteristic of this age, as well as by tactile contact with soft and cuddly "transitional objects."

During the child's second year, awareness of separateness increases and the child becomes less impervious to frustration and less oblivious to his or her mother's presence. According to Mahler (Mahler, et al., 1975), "as the toddler's awareness of separateness grows—stimulated by his maturationally acquired ability to move away physically from his mother and by his cognitive growth—he seems to have an increased need, a wish for mother to share with him every one of his new skills and experiences as well as a great need for the object's love" (pp. 76-77).

This ushers in the stage of separation-individuation known as rapprochement. It is characterized by a struggle which is trying for both mother and child. According to Bergman and Slade (1984), "the child's awareness of his separateness provokes a sometimes desperate attempt to restore the sense of unity and oneness with mother. Separation anxiety, clinging, shadowing, demandingness, coercion of the mother and rapid swings from happiness to rageful tantrums to despair express his fervent

wish to restore lost closeness and intimacy" (pp. 4-5). The toddler experiences a conflict between feelings of helplessness about being separate and the desperate need to defend the boundaries of his or her body.

In the struggle, the toddler attempts to cope with anger about his helplessness by over-emphasizing his or her boundaries and omnipotence. The child takes "possession of his own body and protect[s] it against being handled as a passive object by the mother; for example, he struggles against being put into the reclining position" (Mahler, et al., 1975, p. 222). Resolution of the rapprochement crisis usually occurs in the child's third year. With growing individuation, the child is once again able to function at an optimal distance from the mother. Factors which contribute to this resolution include the development of self- and object-constancy and the development of language and the capacity for symbolic expression (Bergman and Slade, 1984).

The child's well-being at this stage depends to a large extent on the outcome of very early attempts to derive security and satisfaction through the body. When these have been successful, the child emerges from the rapprochement phase with an internal sense of self which includes "good-parent", "good-self" and "good-body" experiences (Kaplan, 1978). When such a child becomes an adult, she is likely to have a sense of wholeness and integrity and a sense of "responsible body ownership" which involves the "cognitive and emotional integration of outer and inner aspects of a matured body, [the] ability to anticipate its response and to adequately judge and meet its needs" (Rothchild, 1979, pp. 282-283). The capacity to be in charge of the "bodily self" facilitates sharing it in love relationships and thereby promotes security in intimate relationships.

2. The Psychology of the Self

Whereas Freud argued that narcissism or self-love was a sign of regression to an early stage of development, the work of Heinz Kohut suggests that narcissism is a necessary and healthy component of development. The development of healthy narcissism is particularly relevant to the development of body image. According to Kohut's theory (1966, 1972), self development begins when the newborn first asserts her need for a "food-giving self-object." If her early need for the nurturant other is not gratified, the infant's sense of self becomes fragmented and she is not able to become autonomous from the experience of body and bodily needs (White, 1981). In such cases, the development of the self, including the body image, will be severely compromised.

In addition to expressing needs for nurturance, young children naturally display exhibitionistic tendencies, which Kohut (1966) views as part of normal narcissistic development. The young child needs the mother to look at and admire her body and such mirroring of the narcissistic self is critical for subsequent development:

Before psychological separateness has been established, the baby experiences the mother's pleasure in his whole body self, as part of his own psychological equipment. After psychological separation has taken place the child needs the gleam in the mother's eye in order to maintain the narcissistic libidinal suffusion which now concerns in their sequence, the leading functions and activities of the various maturational phases. (Kohut, 1966, p. 252)

Under favorable conditions (i.e., where the child is sufficiently gratified), the narcissistic needs of the personality and the exhibitionism of the child become neutralized and are "gradually integrated into the web of our ego as a healthy enjoyment of our own activities and successes" (Kohut, 1966, p. 254). In contrast, individuals

who experience early narcissistic trauma are likely to develop unstable and unintegrated mind-body-self fragments. This fragmentation in the formation of the self leaves the child vulnerable to lifelong insecurity in the narcissistic realm (Kohut, 1972). Such individuals will continually need "narcissistic sustenance" from others and will attempt to regulate self-esteem through the use of self-object transferences (White, 1981). When the maintenance of an acceptable body image is dependent on relationships with others, the body image is likely to be unstable.

C. Summary

The psychoanalytic perspectives of Freud, Mahler and Kohut emphasize the importance of the early mother-child relationship in the development of body image. Taking somewhat different approaches, their theories converge to suggest that the child's experiences of being cared for, held and responded to greatly influence how she will view the self and her body. These views of the self become integrated in the body image and are a filter through which the child, and later, the adult will experience and interpret her world.

V. The Attachment Perspective

In recent years, attachment theory has generated a great deal of empirical research on the importance of the early parent-child relationship in promoting positive socioemotional development and healthy adaptation in children. Because, as described in the preceding section, body image is an integral part of early object relationships, attachment models provide a unique theoretical and empirical framework for

understanding the early roots of adult body image.

A. John Bowlby and Attachment Theory

Attachment theory was formulated by John Bowlby (1969, 1980, 1988) in an attempt to explain the extreme distress and anxiety experienced by children when separated from their primary caregivers. Dissatisfied with the prevailing psychoanalytic view that the infant's attachment to her mother was motivated by drive, Bowlby took an evolutionary-ethological approach to explain the intensity with which infants respond to separation and loss.

Attachment, according to Bowlby, is a behavioral system which is essential to the survival of both the individual and the species. Infants, he proposed, like a variety of other animals, are capable of and predisposed to exhibit numerous signalling behaviors, such as crying and gesturing, which elicit caregiving and other social responses from adults. Under optimal conditions, as a result of the infant's signalling behavior, she gains proximity to the primary caregiver or other "preferred individual" (Bowlby, 1980). These signals also provide feedback for the caregiver about the adequacy of his or her response.

Although attachment is a relationship between two people, the attachment system, according to Bowlby, is a psychological organization or regulatory system within a person. The "set-goal" of the system is "to regulate behaviors that maintain proximity to and contact with a discriminated protective person, referred to as the attachment figure(s)" (Bretherton, 1987, p. 1063). For the infant, the system's set-goal is experienced as "felt security" (Bretherton, 1987; Sroufe and Waters, 1977).

The attachment system is not organized at birth, but becomes increasingly complex and differentiated with development. By the end of the infant's first year, proximity- and contact-promoting behaviors have become more sophisticated and specific (e.g., reaching, clinging and locomotor approach). She begins to anticipate her mother's actions and to organize her attachment-seeking behavior on the basis of her expectations of her mother's behavior (Ainsworth, et al., 1978). Thus, attachment behavior gradually becomes "goal-corrected" (i.e., under the intentional control of the infant (Ainsworth, 1979).

As the infant becomes more and more capable of organizing her plans around expectations of her mother's behavior, "attachment becomes increasingly a matter of inner representation of attachment figures and the self in relation to them" (Ainsworth, et al., 1978, p. 27). Such "internal working models", according to Bowlby (1980), are representations "both of the self's capabilities and of relevant features of the environment" (p. 40). This notion of internal models, however, differs from the psychoanalytic theory of internal representation. Whereas from a psychoanalytic perspective, memories of people and affects are stored in discrete categories which later become integrated into one's sense of self, the internal working model in attachment theory is a global structure which represents the way the child organizes (i.e., encodes and accesses) memories related to affect and which guides the development of the sense of self.

Bowlby's theory is based on the idea that there is an evolutionary need for "a system of maternal behavior that is reciprocal to infant attachment behavior" (Ainsworth, 1979, p. 5). Infant attachment behavior and reciprocal maternal behavior can be seen as "preadapted to each other"

(Ainsworth, 1979) in an effort to promote survival. Thus, an infant's development depends on the existence of a mothering figure who is sensitive in her responsiveness to her child's behavioral cues. Bowlby's theory suggests that when the environment does not provide such a caregiver, the infant's socioemotional development may be compromised (Ainsworth, 1979).

B. Mary Ainsworth and the Strange Situation

Bowlby's theoretical framework has generated a tremendous amount of empirical research on factors which influence the quality of the infant's developing attachment relationships and sense of self. Ainsworth and her colleagues (Ainsworth, et al., 1978) pioneered the now widely-used paradigm, the Strange Situation, to investigate the impact of maternal behavior on the child's developing attachment behavior. The procedure consists of a 20-minute sequence of separations and reunions between the infant, her primary caregiver and a stranger. By 12 months of age, three major patterns of interaction between caregiver and child can be observed upon their reunion after a brief separation. These patterns, believed to reflect the child's internal model of attachment relationships, can be represented by one of three classifications of "security of attachment." The infant may be judged as 1) securely attached or Group "B" (those children who either seek proximity to the parent upon reunion or who make contact indirectly with the parent [e.g., smiling, vocalizing, or waving], and are then able to return to free play); 2) insecure-avoidant or Group "A", (those children who avoid or ignore their parents upon reunion, either by moving or turning away or by averting gaze or shifting body posture); or 3) insecure-resistant or Group "C", (those infants who mix

proximity and contact-seeking behavior with angry or rejecting behavior and are not able to derive comfort from the caregiver upon reunion).

In a series of home observations of mother-infant behavior during the first year of life, Ainsworth found that the nature of the child's attachment behavior in the laboratory was strongly related to the interactive events in the attachment relationship at home. Children whose mothers were "sensitive, available and attuned to infant needs during home visits were most likely to turn to them when stressed in the laboratory situation, and to have a more organized and effective means of obtaining comfort" (Slade, 1989, p. 23). Ainsworth (Ainsworth, et al., 1978) suggested that these children expected their mothers to be accessible and responsive in such situations. Thus, they were less likely to be "angry, avoidant or ambivalent upon reunion with their mothers, and tended to use mother as a safe base from which to explore the world during free play" (Slade, 1989, p. 23).

In addition to differing along the dimension of security-insecurity, Ainsworth (1979) found that children differ with respect to "absence versus presence of conflict in regard to close bodily contact" (p. 36). Secure infants (as measured in the Strange Situation) were found to "respond more positively to close bodily contact with their mothers than other babies, more frequently sinking in and displaying active and more rambunctious contact behaviors (Ainsworth, 1979, p. 33). In contrast, it was found that children in both insecure groups were in conflict about close bodily contact with their mothers. Further analyses revealed that "Group B mothers spent a significantly greater proportion of their 'holding time' in tender, careful holding than did A and C mothers, and spent less time in inept holding. B mothers were more often affectionate

when in physical contact with their babies" (Ainsworth, 1979, p. 34). A and C mothers, in contrast, were more likely to display aversion to close bodily contact and to "provide their babies with unpleasant and even painful experiences in the context of close bodily contact..." (Ainsworth, 1979, p. 34). Group A mothers evidenced more aversion to close bodily contact than Group C mothers (Ainsworth, 1979), although C mothers were often found to be insensitive and intrusive when initiating or engaging in physical contact with their infants (Ainsworth, et al., 1978). Since infants are normally comforted via the body (e.g., soothing, holding, feeding, changing, etc.), these differences in maternal comfort with and style of bodily contact are likely to have a significant impact on the child's developing body image.

Ainsworth's empirical work focused primarily on the impact of maternal behavior on the infant's comfort with physical contact and the organization of her security of attachment. She suggested, however, that while secure attachment behavior may at first be directly attributable to the mother's responsiveness to the infant's signals and her behaviors and attitudes regarding close bodily contact, eventually, security of attachment can be seen as a behavioral manifestation of the child's "representational model" of the mother's accessibility and responsiveness (Ainsworth, 1979). This "working model" of the mother contains information about her comfort with physical contact and affection and her feelings about her infant's body and presumably about her own body, as well. Thus, the child's internal working model of attachment contains the earliest foundations of the child's body image.

C. Mary Main and the Adult Attachment Interview

Although Ainsworth acknowledged that children build up a representational model of the mother during the first year of life, the empirical work she inspired emphasized the importance of maternal behavior in the child's developing attachment organization. Main and her colleagues (Main, et al., 1985) reconceptualized individual differences in attachment organization as "individual differences in the mental representation of the self in relation to attachment" (p. 66). The internal working model, they proposed, reflects "the history of the infant's actions, infant-parent interactions, and the fate of the infant's 'attempts and outcomes'...to regain the parent even in the parent's absence (Main, et al., 1985, p. 75). It is not an "objective picture" of the caregiver, but rather the child's active construction of the history of her actions or intended actions toward the attachment figure and the outcome of these actions (Main, et al., 1985). The relationship between what is experienced and what is internalized is not necessarily simple or direct because children actively and continuously modify these internal models.

According to Main, internal working models serve several functions. First, they provide "rules and rule systems" which guide the child's behavior and determine how the child evaluates her experiences. In addition, they provide rules which direct the child's attention and memory and which "permit or limit the individual's access to certain forms of knowledge regarding the self, the attachment figure and the relationship between the self and the attachment figure" (Main, et al., 1985, p. 77). These early representations orchestrate the way one goes about learning more about the self and the world as well as the way one consciously or

unconsciously organizes information and feelings about attachment-related experiences.

Main's reconceptualization of internal working models introduced the idea that language plays an important role in one's organization and representation of early attachment experiences. The study of attachment could thus be extended beyond infancy into childhood and adulthood. Main and her colleagues administered the Strange Situation to a group of 40 infants and their mothers at 12 months of age and to these infants and their fathers at 18 months of age. When the children were six years old, they returned to the lab with their parents. The internal working model of attachment was studied in the six-year-olds by asking for verbal representations of each child's feelings about and possible responses to a pictured parent-child separation (Main, et al., 1985). Security of attachment to mother at one year and at six years of age were highly correlated ($r = .76, p < .001$). The correlation between security of attachment to fathers at 18 months and six years was not as strong ($r = .30$), but nevertheless, significant ($p < .05$).

In addition, Main interviewed the parents using the Adult Attachment Interview (AAI; George, et al., 1985). This structured clinical interview consists of 18 questions designed to elicit memories, thoughts and feelings about the current "state of mind" of the adult with respect to attachment. The interview asks for "descriptions of early relationships and attachment-related events and for the adult's sense of the way these relationships and events [have] affected adult personality" (Main, et al., 1985, p. 78). The nature of early relationships is explored via questions concerning early separations, methods of obtaining comfort, feelings of closeness to each parent, and experiences of rejection (Slade, 1989).

Subjects are asked to provide autobiographical or episodic memories to support each description.

After a thorough analysis of the interview transcripts, Main was able to classify parents as "Secure/Autonomous with Respect to Attachment" (Group F), "Dismissing of Attachment" (Group D), or "Preoccupied with Early Attachments or Past Experiences" (Group E). According to her classification scheme (Main and Goldwyn, 1985, 1988), subjects are first rated on five nine-point scales, some of which assess the subjects probable experience with each parent (e.g., loving vs. unloving and degree of role-reversal), and others which reflect the adult's current "state of mind" regarding attachment (e.g., coherence vs. incoherence of transcript and ease of recall for early experience; Slade, 1989).

After being rated on the nine scales, transcripts are classified into one of the three major categories listed above. It is not the individual's actual life history which determines classification, but rather her organization of memories and feelings about her childhood experiences. Of particular importance is the accessibility of the subject's feelings and memories for childhood events and the degree to which the subject has achieved insight into the effects of these events. Thus, an individual may have experienced neglect, trauma and insensitive or inconsistent parenting but if she has been able "to gain perspective on the effects and reasons behind such experiences," her representational model of attachment may not necessarily be insecure (Aber and Slade, 1987, p. 11). For 32 interviews, inter-rater reliability for major category classification was .81.

Each subject is also given a subcategory rating within each attachment classification which further specifies individual characteristics and

accounts for some of the variation within each classification. The subcategories for each classification are as follows:

- F: Secure/Autonomous
 - F1. Some setting aside of attachment
 - F2. Somewhat detached
 - F3. Autonomous with respect to attachment
 - F4. Somewhat incoherent or dependent
 - F5. Somewhat resentful/conflicted

- D: Dismissing
 - D1. Dismissing of attachment
 - D2. Devaluing of attachment
 - D3. Restricted in feeling
 - D4. Cut off from fear of loss

- E: Preoccupied
 - E1. Passive
 - E2. Conflicted and ambivalent
 - E3. Fearful

Classification involves a thorough study of language throughout the interview, paying particular attention to all contradictions and incoherencies. A subject who reports that her mother was "loving" but who cannot match this semantic generalization of the relationship with supportive episodic memories (i.e., evidence of the mother responding to the child in ways that do, in fact, seem genuinely loving), is not judged to be secure (Slade, 1989).

In Main's sample, parents who were classified as secure/autonomous "tended to value attachment relationships, whether with their own parents, with others, or in an abstract sense; to regard attachments and experiences related to attachment as influential on personality; and yet to be objective in describing any particular relationship" (Main, et al., 1985, p. 91). These subjects easily recalled early experiences, whether positive or negative; were unlikely to idealize parents; and spoke about attachment in a way that suggested "prior reflection and integration" (Slade, 1989, p. 24).

In contrast, subjects rated as dismissing tended to devalue attachment relationships and experiences and to deny their influence or importance. They frequently had difficulty remembering early experiences and often omitted important aspects of their lives. They were likely to idealize their parents, excluding negative memories and feelings of disappointment, hurt and rejection from consciousness (Slade, 1989). As such, their narratives tended to lack feeling or to be characterized by inappropriate affect (e.g., laughing while relating a memory of cruelty or rejection). As described above, such a subject might present her mother as "loving," but be unable to provide episodic memories to support the description.

Finally, subjects who were preoccupied appeared to be enmeshed in past relationships with their parents. Their narratives were often highly incoherent, presumably because they were "flooded with episodic memories of early experience and their associated negative affects, but lack[ed] the structure to integrate these memories and affects and/or to place them in any perspective" (Slade, 1989, p. 24).

Adults who were classified as secure/autonomous on the AAI were highly likely to be the parents of children rated securely attached in the Strange Situation five years earlier. Those rated dismissing were likely to be the parents of insecure-avoidant children, and those who were preoccupied tended to be the parents of insecure-resistant children. Main (Main, et al., 1985) reported that for mothers, adult attachment agreed with child attachment 76% of the time ($r = .62, p < .001$). For fathers, the relationship was not as strong, but still significant ($r = .37, p < .05$). In a concurrent study of mother and child attachment, Eichberg (1987, cited in Slade, 1989) found that these "matches" occurred 85% of the time.

Several other studies have validated the construct of adult attachment and the relationship between adult and child attachment organizations. Grossmann, Fremmer-Bombik, Rudolph and Grossmann (1987, cited in Slade, 1989), using a modified version of the AAI, reported that "mothers who either had positive attachment experiences in childhood, or who were coherent and non-defensive regarding negative ones had infants judged to be securely attached" (p. 25). In a study of college freshman (Kobak and Sceery, 1987), AAI classification was significantly related to ego resilience and quality of peer relationships. In addition, subjects classified as preoccupied reported more psychiatric symptomatology than the dismissing or autonomous subjects and perceived themselves as less socially competent. Ricks (1985) used self-report inventories to assess the quality of early experiences and found that mothers of securely attached infants scored higher on a measure of self-esteem and had better recollection of positive childhood relationships than mothers of anxiously attached children. In a recent study (Crowell and Feldman, 1988, cited in Slade, 1989), a significant correlation was found between mothers' attachment classifications and the behavior of their preschoolers. Thus, it appears that security of attachment in adults, as in children, may be associated with higher psychological functioning, at least in certain domains (e.g., interpersonal relationships, ego resilience and self-esteem).

VI. Summary of Literature Review

Psychoanalytic theory has long emphasized the importance of body image in early ego development. Important writers such as Freud, Greenacre, Erikson, Mahler and Kohut have stressed the centrality of the mother-child

relationship in the development of body image. Fisher has argued that the body image represents the child's earliest feelings and attitudes about social relationships and about his or her own identity. While the severe body image distortions associated with psychiatric and neurological illnesses have been well-investigated, little is known about the factors which influence normal variations in adult body image.

Pregnancy provides a unique opportunity to study individual differences in body image because it is the only period in the life of adult women when dramatic bodily changes occur under normal circumstances. It is a time of psychological upheaval for most women, during which unresolved conflicts in the pregnant woman's relationship with her own mother are revived and body image issues closely associated with this relationship are unusually pronounced.

Most research on body image in pregnancy has focused on comparing pregnant women as a group to non-pregnant controls or on investigating changes within the same subjects as they move from the pregnant state into the post-partum period. Not surprisingly, the results of these studies have been equivocal, largely due to the fact that there is no reason to expect pregnancy to confer upon women homogeneity with respect to body image or any other psychological characteristic.

There is preliminary evidence, however, that factors such as attitude toward pregnancy, quality of the pregnant woman's relationship with her own mother, pre-pregnancy body image and personality influence the experience of body image in pregnancy. Extraversion has been associated with negative attitudes toward the body in pregnancy (Venezia, 1972); Leifer (1977) found that pregnant women with less positive body images before pregnancy were more vulnerable to changes in appearance during

pregnancy and that women with higher levels of psychological functioning reported less somatic symptomatology and had a more positive response to their pregnant bodies; Jamieson (1980) reported that women who, prior to pregnancy, felt that their bodies were more competent experienced less anxiety during pregnancy; Ware (1986) reported that women with more secure attachment relationships with their own mothers were more comfortable with their femininity during pregnancy. Gordon (1976) found a significant negative correlation between body image and anxiety in pregnancy; and McConnell and Daston (1961) found that body image during pregnancy was positively correlated with attitude toward pregnancy and that subjects with positive attitudes toward pregnancy had higher Barrier scores on the Rorschach than those with negative attitudes.

Attachment theory provides a useful and unique framework for understanding individual differences in body image development and body image experience in pregnancy. Bowlby (1980) emphasized that experiences in attachment relationships during infancy provide the basis for the development of internal working models of attachment figures and of the self (Kobak and Shaver, 1987). Bowlby suggested that when the child's "working model of an attachment figure is characterized by confident expectations for caregiver accessibility and response, the child builds a complementary model of the self as worthy of love and efficacious in gaining it from others" (Kobak and Shaver, 1987, p. 23).

Based on Bowlby's ideas, Ainsworth (Ainsworth, et al., 1978) developed the Strange Situation, an experimental paradigm which is used to classify children according to three patterns of attachment behavior after a brief separation from the mother or other primary caregiver. These patterns, secure, insecure-avoidant and insecure-resistant, reflect the child's

beliefs about the caregiver's accessibility and emotional availability in times of stress. Ainsworth (1979) also observed that these patterns represent the infant's comfort with close bodily contact, presumably based on her history of being comforted by mother.

Main and her colleagues (Main, et al., 1985) developed the Berkeley Adult Attachment Interview (George, et al., 1985) to investigate representations of working models of attachment in adults. Using a coding system (Main and Goldwyn, 1985, 1988) which involves a thorough analysis of language throughout the interview, three "states of mind" regarding attachment were identified. These patterns, secure with respect to attachment, dismissing of attachment and preoccupied with attachment, closely parallel children's patterns of attachment behavior in the Strange Situation. There is significant agreement between a mother's "state of mind" regarding attachment as measured by the AAI and her infant's "security of attachment" in the Strange Situation at 12 months of age, suggesting inter-generational transmission of these patterns. Adults classified as autonomous or secure have been found to be more ego resilient, evidence less psychopathology (Kobak and Sceery, 1987) and to have greater self-esteem (Ricks, 1985).

VII. Hypotheses

Hypothesis 1a: Maternal attachment classification, measured in pregnancy with the AAI, will be associated with pre-pregnant body image on the Pregnancy Interview (Slade, Grunebaum, Haganir and Reeves, 1987; see Methods). On the basis of the literature on the development of body image, it is hypothesized that subjects classified as secure/autonomous on the AAI will have had a stable and accepting body image prior to

pregnancy, subjects classified as insecure/dismissing on the AAI will have had a negative but stable body image prior to pregnancy, and subjects classified as insecure/preoccupied on the AAI will have been overly-focused on and have had an unstable (i.e., fluctuating) body image prior to pregnancy.

Hypothesis 1b: Security of attachment in pregnancy, measured by the AAI, will be associated with a mother's affective response to her pregnant body, measured by the Pregnancy Interview (Slade, et al., 1987). On the basis of the literature which suggests that there is a reactivation of feelings about the mother-child relationship and about body image during first pregnancy, it is hypothesized that subjects classified as secure/autonomous on the AAI will have an accepting and stable emotional response to body image during pregnancy, insecure/dismissing subjects will have a negative but stable response to body image in pregnancy, and insecure/preoccupied subjects will be overly-focused on and have an unstable body image in pregnancy.

Hypothesis 2: Security of attachment, measured in pregnancy with the AAI, will be associated with body cathexis both prior to and during pregnancy, measured by the Body Image Questionnaire (Huganir, 1987; see Methods). Specifically, body cathexis at both time points is expected to be higher for subjects classified as secure than for subjects in the two insecure groups. In addition, for subjects classified as secure on the AAI, body cathexis is unlikely to be influenced by pregnancy; for subjects classified as dismissing on the AAI, body cathexis is likely to decrease with pregnancy; and for subjects classified as preoccupied on the AAI,

body cathexis is equally likely to be heightened or diminished during pregnancy.

Hypothesis 3: Security of attachment, measured in pregnancy using the AAI, will be associated with pattern of body image-boundary phenomena on the Rorschach. Fisher and Cleveland (1968) hypothesized that the kind of boundaries an individual attributes to his or her body, as a result of the quality of early social relationships, will be reflected in that individual's Rorschach responses. The person who sees his or her body as an area which is highly differentiated from the rest of the world would construct a different kind of response than the person who sees his or her body as an area with indefinite boundaries. Therefore, subjects classified as autonomous are expected to have a higher number of Barrier scores than subjects classified as dismissing or preoccupied and subjects classified as preoccupied are expected to have a higher number of Penetration scores than subjects classified as autonomous or dismissing.

Hypothesis 4a: Security of attachment, measured in pregnancy, will be associated with the amount of reported psychological symptomatology and degree of psychological distress during pregnancy. Specifically, subjects classified as secure on the AAI are likely to report on the Brief Symptom Inventory (Derogatis, 1975; see Methods) that they experience fewer and less severe psychological symptoms during pregnancy than subjects in the two insecure groups. While dismissing and preoccupied subjects are both expected to report that they experience a greater number of psychological symptoms than secure subjects, the preoccupied subjects are expected to report a greater level of distress than the dismissing subjects. Based

on the findings of Gordon (1976) and Jamieson (1980) that positive body image and body experiences prior to pregnancy were negatively correlated with anxiety level during pregnancy, it is further hypothesized that subjects classified as autonomous will report less anxiety on the BSI than subjects in the two insecure groups.

Hypothesis 4b: Security of attachment will be associated with the amount of reported somatic symptomatology during pregnancy on the Pregnancy Symptom Checklist (Leifer, 1980b; see Methods). Specifically, subjects classified as secure on the AAI are likely to report low levels of somatic symptomatology, subjects classified as dismissing are likely to report moderate levels of somatic symptomatology, and subjects classified as preoccupied are likely to report high levels of somatic symptomatology.

Chapter 2

METHODS

I. Subjects

Body image phenomena was examined in 18 first-time pregnant women between the ages of 25 and 35. These subjects are participating in "The Pregnancy Project", an ongoing longitudinal study of the development of maternal attachment and its relationship to healthy socioemotional development and adaptation in children. This study is being conducted at the Psychological Center in the Department of Psychology at the City College of the City University of New York. There are two phases of the Project, the pregnancy phase and the infancy phase. The present study of body image involved data collected during the pregnancy phase only.

Pregnant women were recruited to participate in the study through fliers placed in childbirth education classes, exercise classes and maternity stores in the New York metropolitan area. In addition, a number of private obstetricians and midwives agreed to participate in the recruitment effort. Participation in the study was voluntary and subjects were compensated only for transportation to and from the lab.

When prospective subjects contacted the Project, they were screened over the phone by the Project Coordinator. They were invited to participate in the study if they were expecting their first child, were 34 weeks gestation or less, were between the ages of 25 and 35, and were married to or living with the father of the baby. Women who agreed to participate were sent a letter which explained the Project and the various procedures they would be asked to undergo. They were asked to sign consent forms, and informed that they could withdraw from the study at any

time.

Primiparous women were selected for this study because the issues being investigated, such as body image, memories of being parented and the relationship of the pregnant woman to her own mother, are believed by many researchers to be most poignant during first pregnancy.

Interviews were conducted in the third trimester of pregnancy because body image and attachment issues are likely to be most salient at that time. Every attempt was made to avoid interviewing women in the last weeks of pregnancy because the increased physical discomfort associated with the end of pregnancy might distort body image data.

The subjects in this study were exclusively middle-income women. While this homogeneity limits the generalizability of the results, it reduces the possibility that risk factors associated with lower socioeconomic groups might confound data interpretation. In addition, the work of Harris (1979) and Watts (1980) suggests that there may be cultural and socioeconomic differences in modal body image attitudes.

Eligibility was confined to women between the ages of 25 and 35 because the body image and attachment experiences of younger and older women are expected to be somewhat different than those of women in the 25-35 year old range. In addition, those over 35 were excluded to eliminate health risks associated with pregnancy and birth in older women.

Women who were not married to or living with the father of the baby were not included because the attachment experiences of prospective single mothers are expected to be very different from those of married women or those in a committed relationship.

II. Procedures

Subjects participated in three sessions during the pregnancy phase of the project. All interviewing and testing was conducted at one of our two labs (C.U.N.Y. Graduate Center or City College). All interviews and testing were conducted by trained graduate students. For each subject, each of the three sessions was conducted by a new interviewer who was naive to the behaviors and/or responses of the subject during previous visits.

During the first session, demographic and family information was collected and subjects were asked to complete the Brief Symptom Inventory (BSI; Derogatis, 1975; see Measures section). The Pregnancy Interview (Slade, et al., 1987) was then administered and audiotaped (this measure will be described in detail in the Measures section). Subjects were given the Body Image Questionnaire (Huganir, 1987; see Measures section) and the Pregnancy Symptom Checklist (Leifer, 1980b; see Measures section) to take home, complete and return at the next session, which was scheduled within the following two weeks.

During the second session, subjects were given a modified psychodiagnostic battery. This included several subtests of the WAIS-R and the Rorschach test. During the third and final session, the AAI was administered and audiotaped.

III. Instruments and Measures

A. The Adult Attachment Interview (AAI; George, et al., 1985)

This interview consists of 18 precisely-worded questions, administered in a specific sequence. It is designed to "surprise the unconscious" (George, et al., 1985) and to elicit the subject's early memories and

feelings about attachment and attachment-related experiences. Subject's are encouraged to take time to think about the questions and to elaborate on answers. Interviewers are thoroughly trained before administering the AAI and are encouraged to memorize the questions and probes to facilitate a relaxed and reflective atmosphere.

The interview is audiotaped and tapes are transcribed for classification purposes. As described in Chapter 1, based on an analysis of the full transcript, as well as the individual scale ratings, subjects are classified as secure/autonomous, insecure/dismissing or insecure/preoccupied and then assigned to the appropriate subcategory on the basis of the scoring manual developed by Main and Goldwyn (1988). Due to the small sample size in the present study, only the main attachment classification was used in the data analyses, although subcategory assignment was used qualitatively to understand unexpected results.

In the present study, all transcripts were coded independently by two members of the research team who had been extensively trained to become reliable with this classification system. When the two raters did not agree on classification, final judgement was made by the Principal Investigator of the Pregnancy Project, who has been extensively trained by Mary Main.

B. The Pregnancy Interview (Slade, et al., 1987; Appendix A)

This is a semi-structured clinical interview developed by members of the Pregnancy Project research team on the basis of a thorough review of the relevant literature and pilot interviews. The interview consists of 39 items designed to assess feelings and fantasies about pregnancy, about the child and about becoming a parent, about the quality of a pregnant

woman's growing attachment to her baby, her feelings about her relationship with her spouse and with her own mother, changes in lifestyle and habits during pregnancy, and the quality of her attitudes and feelings about her body and appearance from childhood through pregnancy. For the purposes of the present study, only those questions concerning body image were coded and used for data analysis. Like the AAI, this interview asks subjects for descriptions as well as specific examples to back up the descriptions. The interview is audiotaped and takes approximately one hour to administer.

Using pilot data, a coding system was developed (Huganir, 1990; Appendix B) to assess a subject's affective response to pregnant body as well as her pre-pregnancy body image. Three patterns of body experience were identified: 1) subjects whose body image was stable and accepting (Pattern 1); 2) subjects whose body image was negative, but nonetheless, stable (Pattern 2); and 3) subjects who were overly-focused on their bodies and whose body image was fluctuating and unstable (Pattern 3). These patterns and the method of determining classification are described in full detail in the Body Image Scoring System (Huganir, 1990; Appendix B).

In the present study, interviews were transcribed and then coded by two senior psychology majors at a local college who were blind to all other responses given by the subjects and who had no knowledge of attachment theory or the AAI. Inter-rater reliability was initially .78. For the four interviews on which there was disagreement, the raters met with this investigator to review scoring criteria, and then rescored the interviews. This increased inter-rater reliability to .92. Final classification of the remaining interviews was determined by this

investigator, who was also blind to the attachment classification of the subjects. In all cases, final classification of all subjects was unanimously agreed upon.

C. Body Image Questionnaire (Huganir, 1987; Appendix C)

This questionnaire, which is a modified version of Johnson's (1985) Diagnostic Survey for Eating Disorders (DSED), is a multi-item survey, designed for the present study, which focuses on various aspects of the subject's personal history with respect to weight and body image. It includes demographic information as well as information on dieting behavior, exercise, sexual functioning and family weight history.

The DSED was constructed to collect relevant information for use in a treatment program and not with the intention of developing a scaled instrument. However, it contains a modified version of Jourard and Secord's Body-Cathexis Scale and was used in the present study to assess body cathexis prior to and during pregnancy. Subjects were asked to rate 12 parts of their bodies and/or appearance on a 5-point bipolar scale, based on their recollection of these feelings prior to pregnancy (BC_1) and then during pregnancy (BC_2). Body cathexis was determined by summing the 12 items at each timepoint and dividing this sum by 12. Each subject thus received two body cathexis scores, one for pre-pregnancy and one for pregnancy. Change in body cathexis was measured by subtracting BC_1 from BC_2 .

D. Rorschach Inkblot Test

The Rorschach Test was administered to each subject during the testing session. A complete manual for Barrier and Penetration scoring appears

in Fisher, 1986, pp. 659-672). The general criteria are presented below.

1. Score the following as Barrier:

- a. All references to clothing, jewelry, forms of body protection and camouflage, and mechanical attachments to the body.
- b. All references to buildings and enclosed structures.
- c. All references to vehicles which can contain or hold.
- d. All references to containers and animate or inanimate objects which can contain, all coverings, and all forms of concealment.
- e. All non-human living things which have special surface qualities.
- f. All creatures which have shells or similar protective structures.
- g. All references to geographic or natural formations with delimiting or container-like qualities.

2. Score the following for Penetration:

- a. All references to disruption, damage or destruction.
- b. All references to body openings or to acts involving body openings.
- c. All references to bypassing or evading usual boundaries.
- d. All references to entering or leaving structures.
- e. All references to natural events involving intake or expulsion.
- f. All insubstantial or vaguely delimited images.

3. Each response that contains either a Barrier or Penetration image is given a value of 1. No more than 1 credit can be given to a response even if it contains several Barrier or Penetration images. A response, however, can simultaneously be given a Barrier and a Penetration score (e.g., broken vase).

The records were transcribed and scored for Barrier and Penetration responses by two independent raters blind to the identities and previous responses of each subject. Inter-rater reliability for Barrier scores was .85; for Penetration scores, it was .87. When there was disagreement, the final Barrier and Penetration score for each subject was determined by pooling the agreed upon scored responses of both raters.

E. Brief Symptom Inventory (BSI; Derogatis, 1975)

The BSI is a 53-item self-report symptom inventory "designed to reflect the psychological symptom patterns of psychiatric and medical patients as well as non-patient individuals" (Derogatis and Spencer, 1982, p. 6). Subjects are asked to rate each item presented on a "5-point scale of distress (0-4), ranging from 'not-at-all' (0) to 'extremely' (4) at the other" (Derogatis and Spencer, 1982, p. 6). The BSI is then scored and condensed into nine primary symptom dimensions (Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation and Psychoticism). Three global indices provide an overall assessment of the subject's psychopathological status. These are the Global Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST).

The BSI is widely used in clinical research. Numerous studies have confirmed that these indices do "reflect distinct aspects of psychological disorder" (Derogatis and Spencer, 1982, p. 6; a bibliography of studies using the BSI is available from Clinical Psychometric Research, Baltimore, Md.). After converting raw scores to T scores, an individual is considered to have a positive psychiatric diagnosis if the GSI is greater than or equal to T-score 63, or if any two of the primary symptom

dimensions are greater than or equal to T-score 63.

In the present study, the BSI was not used to screen for psychiatric disorders, but rather as an index of psychological distress. This is due to the fact that, given the educational and socioeconomic levels of the subjects in this study, it is likely that a significant portion of the sample will have been in outpatient psychotherapy at some point in their adult lives, and would, therefore, meet criteria for an Axis I and/or Axis II diagnosis (DSM-III-R). In addition, it was expected that pregnancy would cause severe but temporary psychological distress in many individuals (Bibring, et al., 1961). Therefore, subjects within each attachment group were compared on each of the primary symptom dimensions and on the three global indices to determine whether there were differences among the three groups in the degree of psychological distress during pregnancy.

F. Pregnancy Symptom Checklist (Leifer, 1980b; Appendix D)

The Pregnancy Symptom Checklist consists of 20 symptoms which are considered by clinicians to be typical of complaints during pregnancy. Subjects are instructed to rate each symptom in terms of frequency and intensity. Although Leifer (1980b) administered the instrument at each trimester of pregnancy, in the present study, it was administered only in the third trimester. At that time, however, subjects were asked to rate from memory the frequency and intensity of each symptom for each of the trimesters of pregnancy.

The Symptom Checklist is scored by "assigning numerical values to the categories indicating severity and frequency of each symptom (Often=3, Sometimes=2, Never=1; Severe=3, Moderate=2, Mild=1)" (Leifer, 1980b, p.

259). The range of possible scores is thus 20-120. On the basis of means and ranges obtained in her sample, Leifer (1980b) identified the following categories for somatic symptomatology: High = greater than or equal to 65, Moderate = 41-64, Low = 20-40.

G. Wechsler Adult Intelligence Scale-Revised (Wechsler, 1981)

Subjects completed five subtests of the WAIS-R. These were Vocabulary, Similarities, Picture Completion, Block Design and Object Assembly. For the purposes of the present study, only the Vocabulary and Block Design scores were used for data analysis. Scores on these two subtests were used to compute an estimated IQ because this combination has a higher correlation with the Full Scale IQ than any other dyad (Silverstein, 1982). Scores on the Vocabulary subtest alone were used to rule out differences in language ability among the three attachment groups.

Chapter 3

RESULTS

I. Subject Characteristics

The 18 subjects in this study were classified into one of three attachment groups as described in the preceding chapter (Section III-A). Efforts to maintain homogeneity among groups were successful. A series of one-way Anovas revealed no significant differences among the three attachment groups for age, education, language ability (as measured by the Vocabulary subtest of the WAIS-R), or estimated IQ. Table 1 presents a summary of the important demographic characteristics for each attachment group.

II. Attachment and the Pregnancy Interview

It was first hypothesized that maternal attachment classification, as measured by the AAI, would be associated with both pre-pregnancy body image and affective response to the pregnant body, as measured by the Pregnancy Interview. Specifically, the predicted relationship was as follows: Subjects classified as secure/autonomous on the AAI were expected to have a stable/accepting body image; subjects classified as insecure/dismissing were expected to have a negative body image; and subjects classified as insecure/preoccupied were expected to have an unstable/overly-focused body image.

The relationship between attachment classification and pre-pregnancy body image is presented in Table 2; the relationship between attachment classification and body image during pregnancy is presented in Table 3. The strength of the association between attachment classification and body

Table 1
Summary of Subject Characteristics

	Group Means			
	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>	<u>Total</u>
N	7	6	5	18
% Total	38	33	28	100
Age (yrs.)	31.0	29.7	29.2	30.1
Education (yrs.)	16.9	17.2	16.6	16.9
IQ (estimated)	111.2 ¹	101.0	112.6	107.8 ²
Vocabulary (WAIS-R scaled score)	12.2 ¹	10.7	12.6	11.8 ²
Block Design (WAIS-R scaled score)	11.8 ³	9.8	11.6	11.1 ⁴

¹WAIS-R scores missing for 2 subjects; mean based on 5 subjects

²WAIS-R scores missing for 2 subjects; mean based on 16 subjects

³Block Design missing for 1 subject; mean based on 6 subjects

⁴Block Design missing for 1 subject; mean based on 17 subjects

Table 2

Pre-Pregnancy Body Image by Attachment Classification (N)

<u>Body Image</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
Accepting	6	1	0
Negative	1	3	0
Overly-focused	0	2	5

Table 3

Body Image During Pregnancy by Attachment Classification (N)

<u>Body Image</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
Accepting	5	0	0
Negative	2	4	0
Overly-focused	0	2	5

image was tested using the Cramer's V statistic, which is the equivalent of the Pearson's r for nominal level data. Although there is no significance test for Cramer's V, the chi-square statistic can be used as a test of significance. For body image prior to pregnancy, Cramer's V was 0.70 (Chi-square = 17.62, $p < .002$). For body image during pregnancy, Cramer's V was 0.73 (Chi-square = 19.14, $p < .001$). Thus, for all attachment classifications, the quality of a woman's body image experience both before and during pregnancy could be predicted from her attachment classification, lending substantial support to the first hypothesis.

An additional test was done of the relationship between the two Pregnancy Interview variables, body image prior to pregnancy and affective response to the body during pregnancy. For 16 of the 18 subjects, pre-pregnancy body image and body image during pregnancy were identical (Cramer's V = 0.86; Chi-square = 26.57, $p < .0001$).

III. Attachment and Body Cathexis

It was hypothesized that maternal attachment classification, as measured by the AAI, would be associated with body cathexis or body satisfaction, measured with the Body Image Questionnaire, both prior to and during pregnancy. It was also hypothesized that changes in body cathexis from pre-pregnancy to pregnancy could be predicted by attachment classification. Specifically, it was expected that at both time points, securely-attached subjects would have higher body cathexis scores than subjects in the two insecure groups. In addition, it was expected that body cathexis would be unchanged by pregnancy for securely-attached subjects, body cathexis would decrease during pregnancy for dismissing subjects, and body cathexis would be equally likely to increase or

decrease for preoccupied subjects.

Table 4 presents the mean body cathexis scores for each attachment group. One-way Anovas revealed no significant differences among the groups for body cathexis prior to pregnancy or body cathexis during pregnancy. Table 5 presents the actual pattern of the change in body cathexis scores from pre-pregnancy to pregnancy. A one-way Anova revealed that there were no significant changes in body cathexis for any group. Thus, the hypothesis that body cathexis would be associated with attachment classification was not supported.

IV. Attachment and the Rorschach

It was hypothesized that security of attachment, measured in pregnancy on the AAI, would be associated with the pattern of Barrier and Penetration scores on the Rorschach. Specifically, autonomous and dismissing subjects were expected to have a higher number of Barrier scores than preoccupied subjects; preoccupied subjects were expected to have a higher number of Penetration scores than secure or dismissing subjects. Table 6 summarizes the Rorschach data for each attachment group.

Inspection of Table 6 shows that preoccupied subjects gave an average of 23.0 total responses whereas autonomous subjects gave an average of 15.3 responses and dismissing subjects gave an average of 16.3 subjects. This finding prompted statistical evaluation to determine whether or not any significant differences on the Barrier and Penetration scores might be an artifact of overall response productivity. A one-way Anova revealed no significant difference among groups for total number of responses of any kind on the Rorschach. A series of three post-hoc t-tests on the

Table 4

Mean Body Cathexis Scores Before (BC_1) and During (BC_2)

Pregnancy

by Attachment Classification

<u>Body Cathexis</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
BC_1	2.6	2.6	2.8
BC_2	2.5	2.8	2.6

Table 5

Change in Body Cathexis During Pregnancy

by Attachment Classification (N)

<u>Body Cathexis</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
Decreased	4	0	3
Unchanged	0	2	0
Increased	3	4	2

Table 6
Mean Rorschach Responses by Attachment Classification

	<u>Autonomous</u> ¹	<u>Dismissing</u>	<u>Preoccupied</u>
Barrier score (B)	5.7	4.8	6.0
Penetration score (P)	2.7	2.5	4.2
Response Total (R)	15.3	16.3	23.0
B/R	.38	.36	.25
P/R	.20	.18	.18

¹1 record missing

difference between the means for response total revealed that only the difference between the autonomous and preoccupied groups was significant at the $p < .05$ level; when the Bonferroni correction was made, it did not meet the $p < .017$ ($.05/3$) cutoff. Although this difference failed to reach statistical significance, further investigation may be warranted to explore whether there is a general tendency for preoccupied subjects to have a higher response total on the Rorschach.

Finally, the data were analyzed using the ratio of Barrier scores to total number of responses and the ratio of Penetration scores to total number of responses as dependent variables, to control for possible differences attributable to response total. One-way Anovas found no significant differences among the groups for both ratio scores, nor were there significant differences among the groups using the raw number of Barrier and Penetration scores.

V. Attachment and Symptomatology During Pregnancy

It was hypothesized that attachment classification on the AAI, measured during pregnancy, would be associated with the amount and severity of psychological distress in pregnancy, as measured by the BSI. Specifically, it was expected that securely-attached subjects would report fewer psychological symptoms during pregnancy than subjects in the dismissing or preoccupied groups. In addition, preoccupied subjects were expected to report a greater level of symptom distress than the dismissing or secure subjects.

Group means for these variables are presented in Table 7. One-way Anovas on number of symptoms (Positive Symptom Total) reported and level of psychological distress (Positive Symptom Distress Total) were not

Table 7
Mean BSI Raw Scores by Attachment Classification

<u>Primary Symptom Dimensions</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
Somatization	.634	.905	.516
Obsessive-Compulsive	.666	1.055	.834
Interpersonal Sensitivity	.429	.583	.850
Depression	.406	.807	.836
Anxiety	.499	1.195	.632
Hostility	.371	.433	.760
Phobic Anxiety	.200	.367	.360
Paranoid Ideation	.229	.233	.640
Psychoticism	.143	.200	.400
<u>Global Indices</u>			
Global Severity Index	.431	.698	.664
Positive Symptom Total	16.857	23.833	18.400
Positive Symptom Distress Index	1.360	1.513	1.640

significant. Scores on the primary symptom dimensions were examined by a series of one-way Anovas to determine whether the three attachment groups could be distinguished on the basis of these individual scores. There were no significant differences among the groups on any of the nine symptom dimensions, although there were some suggestions in the data that, with further evaluation, several symptom dimensions might differentiate among the groups. On the obsessive-compulsive dimension, a post-hoc t-test was performed on the contrast between the autonomous and dismissing group means, transformed to make the variances more homogeneous. This was not significant at the $p < .016$ (Bonferroni adjustment) level needed ($t = 1.92, p < .08$). For the anxiety dimension, this same contrast did not reach significance ($t = 1.8, p < .1$).

Table 8 presents a summary of the BSI scores for each attachment group converted into T-scores (Derogatis and Spencer, 1982). While no attachment group had a profile that would be consistent with major mental illness (i.e., T-scores > 70 on Paranoid Ideation and Psychoticism), it is interesting to note that in the dismissing group, the mean T-score for the anxiety dimension was 64. T-scores of 63 and above are considered to be indicators of extreme distress (Derogatis and Spencer, 1982). For somatization and obsessive-compulsive symptomatology, mean T-scores for the dismissing group were 62.

It was also hypothesized that security of attachment would be associated with the amount of reported somatic symptomatology, as measured by the Pregnancy Symptom Checklist. Group means for somatic symptomatology at each trimester are presented in Table 9. Specifically, it was expected that autonomous subjects would report the highest levels of somatic symptomatology at each trimester. One-way Anovas on amount of

Table 8
BSI T-Scores by Attachment Classification

<u>Primary Symptom Dimensions</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
Somatization	59	62	57
Obsessive-Compulsive	56	62	58
Interpersonal Sensitivity	54	57	61
Depression	56	61	61
Anxiety	55	64	57
Hostility	53	56	60
Phobic Anxiety	55	57	57
Paranoid Ideation	53	53	59
Psychoticism	54	56	61
<u>Global Indices</u>			
Global Severity Index	56	61	61
Positive Symptom Total	56	60	57
Positive Symptom Distress Index	54	57	59

Table 9
Mean Pregnancy Symptom Checklist Scores
by Trimester and Attachment Group

<u>Trimester</u>	<u>Autonomous</u>	<u>Dismissing</u>	<u>Preoccupied</u>
First	45.4	47.3	43.8
Second	46.4	43.3	41.0
Third	49.6	51.0	44.8

somatic symptomatology during each trimester revealed no significant differences among the three attachment groups. All subjects reported moderate levels (Leifer, 1980b) of somatic symptomatology throughout pregnancy.

Chapter 4

DISCUSSION

The overall results of this study demonstrate that there is a strong relationship between the quality of a woman's affective body image experience during pregnancy and her "state of mind with respect to attachment" (Main and Goldwyn, 1988). Despite negative or ambiguous findings on previously used measures of body image, the semi-structured Pregnancy Interview provides convincing preliminary evidence that body image and attachment history are related.

The congruence between attachment history and body image is consistent with psychoanalytic theory, which holds that body image develops out of the child's earliest object relationships (Fisher and Cleveland, 1968; Freud, 1923; Greenacre, 1953, 1958; Kohut, 1966, 1972; Lussier, 1980; Mahler, Pine and Bergman, 1975; Peto, 1959; Schilder, 1950). During pregnancy, feelings and conflicts about a woman's relationship with her own mother are reactivated (Benedek, 1959; Bibring, et al., 1961; Leifer, 1977, 1980a, 1980b; Pines, 1972, 1982, 1989) and feelings about this attachment relationship and about becoming an attachment figure are reflected in the pregnant woman's body image (Pines, 1989).

The findings in this study are also consistent with empirical work by Ainsworth et al. (1978) who found that mothers of securely-attached infants, presumably securely-attached themselves (Main, et al, 1985), were more comfortable with close bodily contact with their babies than mothers of insecurely-attached babies. In addition, Ware (1986) reported that women with a history of secure attachment relationships were more

comfortable with their feminine qualities during pregnancy than women with insecure attachment histories.

I. Attachment and Body Image on the Pregnancy Interview

The Body Image Coding System was developed, using a small sample of pilot Pregnancy Interviews, to distinguish among patterns of body image experience both prior to and during pregnancy. Using this coding system, all subjects in the present study were easily and reliably classified into one of the three body image patterns:

Pattern 1: Stable/Accepting

Women with secure attachment histories were most likely to report accepting or positive feelings about their pregnant bodies, to enjoy wearing maternity clothes, to enjoy their husbands' response to their pregnant bodies, to be realistic during pregnancy about their bodies after delivery and to have had a positive and/or accepting body image prior to pregnancy. They often were awed by the bodily changes and used humor in describing their feelings about these changes. For example, when asked "How have you felt about your body and appearance during pregnancy?" securely-attached subjects responded as follows:

Well, I've been watching myself get bigger and bigger and the funny thing is I'm beginning to get used to the way I look (laughs).

I liked the fact that my breasts got bigger cause they were always very tiny and so it was a different kind of feeling to all of a sudden have breasts — big breasts (laughs). Um, the stomach part I liked — I just always liked how pregnant women looked.

Or, when asked to describe their husbands' reactions, autonomous subjects responded as follows:

He's always taken a real pride in my body...He didn't think that I looked fat — he kind of always had the big

picture...he will always say, you know, I re -- I really want to look at your profile. He always wanted to take alot more pictures than I wanted him to take...

Marveling at the fact that this happens to a woman. I think he's -- I almost think he's jealous because he -- early on, he would say, "What does it feel like? What does it feel like?" He really wanted to know what it was like to have this, ah, living being inside me...I think the awe is one way that we've been in tune...He says he finds it incredibly sexy. He loves it, you know, which I don't exactly understand, but O.K. (laughs).

Pattern 2: Negative/Dissatisfied

Women who were dismissing of attachment were most likely to be negative and conflicted about their bodies during pregnancy, to be unable to share in their husbands' excitement about their pregnant bodies, to be worried during pregnancy about their body shape after delivery, and to have had a negative body image prior to pregnancy. When asked to describe feelings about the pregnant body and appearance, dismissing subjects were significantly more dissatisfied with the experience and responded as follows:

I just started gaining weight in the first couple of weeks. I just started filling out...I didn't like it (little laugh). I felt depressed -- I felt fat -- it was unbearable to wear them [my clothes]. It freaked me out a little bit, you know, looking at the physical changes -- I felt a little grossed out by it.

Um, big (laughs). I feel big and heavy. But that's -- I've always been heavy and I lost alot of weight before pregnancy, so now I feel like I'm one step back and I'm heavy again. Also -- usually I'm basically a healthy person and I'm not used to having headaches and body aches and pains. It's a weird feeling, you know, that you're constant -- you're never feeling good. Never, really.

Dismissing subjects were also significantly less moved by their husbands' reactions to their pregnant bodies:

Um, he likes that I'm pregnant. You know, he likes feeling the baby and feeling my stomach. You know, he really hasn't, it hasn't phased him as much. It's because it's my body and I feel it more.

He doesn't think I look ugly, I know that. Um, he's, he's fascinated by the way my uterus is growing, which clearly when I'm naked, it really shows up more than when I wear clothes, by the way it is. I think he was quite aware of certain faults of my body when we met and got married, so he's probably not too concerned.

Pattern 3: Overly-focused/Unstable

Women who were preoccupied with attachment were most likely to be overly-focused on changes in their bodies and weight during pregnancy, to frequently vacillate between strong positive and strong negative feelings about their bodies, to focus on their husbands' ambivalent feelings about their bodies or the ambivalence of others toward pregnancy, to be extremely worried during pregnancy about regaining their shape after delivery, and to have had unstable feelings about their bodies prior to pregnancy. In response to the question about their reactions to their pregnant bodies, preoccupied women responded:

My rear end grew incredibly, just hugely, and my thighs (sigh), that's what grew. So that's very traumatic, even if you're not pregnant (laughs). And you know, the — the real fear is is it gonna go away. You know, everyone keeps saying it's gonna go away, but how could it possibly go away, it's fat.

For the most part, very good. It's been surprisingly untraumatic. I had expected much more traumatic results (laughs). Most of the people I've known over the years, and more recently, my sister-in-law, have blown up like balloons. I mean, their faces were swelled, their feet and their hands, you know, they got large and just really awful-looking, and they will admit it themselves. Um, I've seen alot of other women who just, they look terrible, you know, and I used to think, oh my God (laughs), and I just don't feel that way at all. Everyone says I look cute, you know, "You look so small, I can't believe you're seven months pregnant." Um, (clears throat) I don't think I've gained alot of weight. It's been easier than I thought it would be.

The relationship between attachment classification and body image adaptation during pregnancy can be seen as a function of the developmental

conditions under which attachment and body image are organized and integrated. Secure/autonomous women are likely to have experienced attachment figures as a "secure base or haven of safety" (Main and Goldwyn, 1988, p. 88). In addition, Main argues that securely-attached adults are more consciously aware of and able to reflect on mental difficulties and are at relative ease with attachment-related issues. They have also been found to be more compassionately tolerant of "imperfection in the self, in the parents, and in others" (Main and Goldwyn, 1988, p. 89).

That securely-attached women respond adaptively to body image changes is consistent with empirical evidence that such individuals are more ego resilient (Kobak and Sceery, 1987), have more self-esteem (Ricks, 1985) and have more flexible and coherent internal representations of their infants (Zeanah, 1989).

According to Main and Goldwyn (1984), the adult woman who has not had a positive attachment history is expected to "organize her attention away from attachment experiences and her feelings regarding these experiences" (p. 14). Since pregnancy revives early memories of the self in attachment relationships, insecurely-attached individuals must turn their attention away from such feelings in order to maintain "felt security" (Bretherton, 1987).

Dismissing subjects are likely to have experienced rejection by attachment figures in childhood and to have developed "an organization of thought which permits attachment to remain relatively de-activated" (Main and Goldwyn, 1988, p. 80). During pregnancy, feelings are turned away from attachment by rejecting the body altogether.

Preoccupied individuals are confused about and still entangled in

attachment relationships. Early childhood experiences were often lacking in love, and families often featured a weak mother who was unable to adequately protect her daughter, often needing parenting herself (role-reversal). Unlike the more clear-cut rejection experienced by dismissing subjects, the parent-child difficulties of preoccupied individuals are often less overt and thus, the individual has had more difficulty moving beyond these experiences. During pregnancy, unresolved feelings about attachment are intensified and these subjects are as "mentally entangled" with their body image issues during pregnancy as they are with attachment-related issues.

This relationship between attachment classification and quality of body image experience in pregnancy is consistent with psychoanalytic theories of body image development (Freud, 1923; Greenacre, 1953, 1958; Kohut, 1966, 1972; Lussier, 1980; Mahler, et al., 1975; Peto, 1959; Schilder, 1950). Peto (1959) suggested that the body image symbolizes the degree to which the early mother-child relationship has been gratifying or frustrating. Under optimal conditions (i.e., conditions which presumably lead to the development of secure attachment), the adult body image becomes emotionally neutralized or divorced from feelings about the mother-child relationship. However, disturbances in the mother-child relationship, the conditions which presumably lead to insecure attachments, may result in the continuity of this emotional link. In such cases, more severe regressions to the childhood body image during experiences such as pregnancy, would be expected.

Individuals who have secure attachment histories are likely to be those who have been more successful deriving security through the body as children and who thus negotiate separation-individuation more successfully

(Mahler, et al., 1975). Such individuals are expected to have more positive body images as adults and to feel more comfortable sharing the "bodily self" in intimate relationships (Kaplan, 1978; Rothchild, 1979), such as marriage, pregnancy and motherhood.

In contrast, adults with insecure attachment histories are likely to be those individuals whose early narcissistic needs were not adequately gratified and who experienced early narcissistic trauma (Kohut, 1966). These individuals are expected to be vulnerable to lifelong insecurity in the narcissistic realm. They are likely to have an unstable body image which is in continual need of "narcissistic sustenance" from others (Kohut, 1972). For such individuals, experiences such as pregnancy are likely to be extremely destabilizing.

In this study of body image in pregnancy, there were four cases in which body image did not match attachment classification. Two securely attached subjects had a negative body image pattern and two dismissing subjects were overly-focused on body image. These incongruities may be understood by examining the attachment classification subcategory to which these cases are assigned. Both autonomous subjects who had negative body images were classified as F2: Somewhat dismissing or restricting of attachment. This is the autonomous category which shares many characteristics (e.g., coolness, defensiveness) with the dismissing classification (Main and Goldwyn, 1988) and these individuals, by definition, have a less secure internal representation of the self in attachment relationships than adults classified as F3, the group exemplar. When questioned about her affective response to the bodily changes in pregnancy, one subject's responses were more reserved and conflicted than those of autonomous subjects with a stable and accepting body image:

Um, in some ways, sort of curious and detached, you know, looking in the mirror and watching my belly get larger and my breasts get larger and in some ways, I mean, I like some aspects of it in the sense that it's so interesting and, you know, it's been pleasant. Um, but on the other hand, I don't feel — I certainly don't feel as attractive and sexually, I definitely don't feel as desirable...It's kind of disappointing in some ways.

When asked about her husband's response, this subject's remarks were equally low-key:

I mean, so far, he seems to think it's kind of neat, kind of interesting, but more in a detached way.

Both of the dismissing subjects who were classified as overly-focused on body image were classified as D2: Devaluing of attachment. Main suggests that this subcategory of dismissing develops in response to an over-involving or role-reversing parent, a common characteristic of the attachment histories of preoccupied individuals. Thus, discontinuities between overall attachment classification and body image pattern are better understood when the theoretical underpinnings of the particular subcategories of attachment classification are taken into account. Main and Goldwyn (1988) argue that overlap between categories should be expected and that a given individual may evidence features of several attachment categories; the judge must assign the best-fitting classification, but often must assign alternative classifications, as well (Main and Goldwyn, 1988).

In the present study, pre-pregnancy body image and body image during pregnancy, both measured by the Pregnancy Interview, were strongly associated. This is consistent with the psychoanalytic notion that body image develops early in life and, in the absence of severe trauma or an intensive working through process, such as psychotherapy, remains fairly stable across time (Fisher, 1986). However, it is difficult to ascertain

whether this interview, administered during pregnancy, is a valid instrument for the retroactive measurement of pre-pregnancy body image.

Support for the interview as a valid measure of pre-pregnancy body image comes from a qualitative analysis of the interviews of the two subjects whose body image patterns were not stable across time. Both subjects had stable and accepting body images during pregnancy but were dissatisfied with their bodies growing up. The reasons for this become more clear when their life experiences are examined. One, who was classified as dismissing on the AAI, had been a professional dancer. Although she reported that her family was always accepting of her appearance, she struggled to feel comfortable with her body until she gave up dancing:

I always wanted to improve my body. I always wanted to be a dancer and all those hours in front of the mirror, those plies and entendus and judging yourself according to every other dancer in the room—it was always a real struggle of mine to be perfect...Well, my mother was always very open about bodies, you know, her body, my body—it was just a natural thing so I think that has probably kept me at ease with that even though I went through my own weird phases at certain points. I think I've come full circle and feel like I was given a good start from her. (Weird phases?) Oh, you know, feeling too—too large, you know, cause I had to be skin and bones to be a dancer and um, that was the—many years of that and once I left the dance world, I began to feel more normal again.

The other subject, classified as autonomous on the AAI, had no memory of her body image growing up. Her father left the family when she was three years old and her mother never talked about him or told her what happened to him. Although she stated that she felt good about her appearance compared to her childhood peers, emphasis on body image in the family was minimal. She stated:

I mean, I know that they thought I looked fine or they would have said something—you're eating too much or you're not eating enough or you're getting a little heavy or—Again, I

was just kind of average so there was nothing for anyone to really point out.

Although this subject's memories for childhood experiences related to body image are not accessible, possibly due to the trauma of losing an attachment figure at an early age, her experience of her own body, and, presumably, of her other attachment figure was probably "good enough." However, because of her lack of any convincing memories of having felt good about her body growing up, she was classified in the negative body image category.

This case suggests that there may be a fourth body image pattern which falls somewhere in between accepting and negative. Leifer (1977) divided women into four body image groups (Positive, Accepting, Ambivalent and Negative). With a larger sample, it may be fruitful to explore the relationship between attachment classification and more narrowly-defined body image groups.

The strong association between body image on the Pregnancy Interview and attachment on the AAI raises the issue of whether the Pregnancy Interview is, in fact, measuring a unique construct, body image, or whether, as in the case of the AAI, it is simply measuring the organization of language and affect regarding attachment-related experiences. Zeanah (1989) raises a similar question regarding his newly-developed Working Model of the Child Interview (WMCI), which assess mothers' internal representations of their infants. A coding system was developed which yielded three categories of representations: 1) balanced, 2) disengaged, and 3) estranged. For 22 out of 36 subjects, attachment classification was congruent with maternal representation of the child, such that autonomous subjects had balanced representations, dismissing

subjects had disengaged representations and preoccupied subjects had estranged representations of their children. Zeanah suggests that the WMCI adds little to the understanding provided by the AAI about the mother-child relationship and the nature of internal representations of the adult's attachment history. The answer to this question regarding the Pregnancy Interview awaits further research. In the interim, because both interviews are heavily based on representational theory, the results of the present study must be interpreted somewhat cautiously.

II. Attachment and Other Measures of Body Image

The negative and ambiguous findings in the present study with previously used measures of body image can best be understood as a function of the multi-dimensionality of body image (Fisher, 1986; Schilder, 1950); in other words, each instrument used in the present study may be measuring a different component of body image. Security of attachment may be correlated with only the affective component of body image being tapped by the Pregnancy Interview. The negative findings, however, are consistent with previously reported ambiguous results in studies of the correlates of body image during pregnancy, which relied on instruments such as the Body-Cathexis scale and the Rorschach (see Fisher, 1986 for a thorough review). While the present study calls into further question the reliability and construct validity of these instruments (Fisher, 1986), further research using larger samples will be needed to clarify these issues.

A. Body Cathexis

Both the AAI and the Pregnancy Interview tap unconscious feelings

and attitudes. The body-cathexis scale, on the other hand, asks subjects to consciously rate their attitudes about their appearance. Thus, the non-significant relationship between body cathexis and attachment classification may be a function of the two different components of body image being measured by the Pregnancy Interview and the Body Image Questionnaire. Alternatively, because pregnancy is associated with such dramatic bodily changes for all women, it is possible that normal variations in body cathexis are obscured in pregnancy. Post-partum evaluation of the body cathexis of these subjects would clarify this issue.

Although several studies have provided empirical support for the notion that body cathexis, as measured by Secord and Jourard's (1953) Body-Cathexis scale, is sensitive to differences in body image adjustment in pregnancy (Gordon, 1976; Leifer, 1980b), these studies used a longer version of the Body-Cathexis scale than the one used in the present study. Seggar and his colleagues (1988) report that most short versions range from 20 to 25 items. In the present study, only 12 items were used. It is well known that in reducing test length, reliability is compromised (Anastasi, 1982). Venezia (1979) argues that it is difficult to generalize from a small number of items about an individual's body image. A longer version of the body-cathexis scale would increase generalizability and may provide convergent validity for the Pregnancy Interview as a measure of body image.

B. Body Boundary Phenomena

There were no significant differences among the attachment groups on the Rorschach. This finding was surprising in light of Fisher's

(Fisher and Cleveland, 1968) conviction that body boundary phenomena, such as Barrier and Penetration scores on the Rorschach, are good indicators of an individual's capacity to handle stressful situations, including pregnancy, effectively. Individuals who make healthy adaptations to disfigurement or dismemberment have been found to have higher Barrier scores and to be more open to discussing their deformities (Kolb, 1975). Thus, securely-attached subjects, who are more open to discussing even painful attachment-related issues, were expected to have higher Barrier scores. Because pregnancy revives old feeling and conflicts about attachment relationships, it was expected to be more stressful for insecurely-attached individuals.

Empirical evidence also led to the prediction that securely-attached subjects would have higher Barrier scores and lower Penetration scores than insecure subjects. McConnell and Daston's (1961) study demonstrated that Barrier and Penetration scores are sensitive to differences in attitude toward pregnancy. They found that women with positive attitudes toward pregnancy had significantly higher Barrier scores, and tended to have lower Penetration scores, than women with more negative attitudes about pregnancy.

There are several possible explanations for the non-significant Rorschach results in the present study. First, the Rorschach, like the body-cathexis scale, may tap a different component of body image than that being tapped by the Pregnancy Interview. Alternatively, in high functioning individuals such as the subjects in the present study, the integrity of body boundaries may not be threatened by pregnancy.

Additionally, it is possible that the Rorschach data are invalidated because of inconsistent administration of the test. At least four

different experimenters administered the Rorschach, and a qualitative examination of the protocols revealed differences in the style of administration, particularly with regard to how thoroughly responses were probed during the inquiry. An attempt was made to control for such differences by analyzing only responses given during the free association and by analyzing the ratio of Barrier and Penetration responses to total number of responses, but this may not have completely eliminated this problem. Re-administration of the Rorschach under more controlled conditions will be needed to determine whether or not there is a relationship between attachment classification and body boundary phenomena.

C. Psychiatric Symptomatology

Although there were no significant differences among attachment groups on the BSI, the trends and qualitative findings warrant discussion. The only T-score greater than 63 occurred on the anxiety dimension in the dismissing of attachment group. T-scores in this group for obsessive-compulsive symptomatology and somatization were 62. Based on these data which approach significance, it is possible that in a larger sample, dismissing subjects might be found to adapt least well to pregnancy. This may be a function of the defensive style seen in this group (e.g., denial of attachment and body image issues), which, during pregnancy, is less adaptive and leads to more symptomatology than the overly-focused, enmeshed style of preoccupied individuals. The findings in the present study do not support Kobak and Sceery's (1987) findings that preoccupied subjects are more anxious and report more psychiatric symptoms than dismissing or autonomous subjects.

D. Pregnancy Symptomatology

In the present study, the Pregnancy Symptom Checklist did not distinguish among the attachment groups. This finding is inconsistent with Leifer's (1980b) report that, using this instrument, subjects with more positive attitudes toward pregnancy had lower symptomatology scores. However, our results are consistent with Gordon's (1976) finding that body cathexis and number of physical symptoms experienced during pregnancy were not related. Again, it is likely that the component of body image being measured on the Pregnancy Interview is not the same as that being tapped by this checklist. It is also possible that administration during each trimester, as opposed to asking subjects to recall their somatic experiences from earlier stages of pregnancy, would be more reliable.

III. Additional Findings

A. Attachment and Cognitive Abilities

The hypotheses in this study were all based on the assumption that subjects in each attachment group would be homogeneous with respect to age, level of education, IQ or language ability, and this assumption proved valid. Because the coding of the AAI transcript relies heavily on an assessment of the coherency of the transcript, one might expect factors such as IQ and level of education to influence classification. Coherency is judged by the subject's ability to coherently talk about her early experiences and to evaluate the effects of these experiences on her personality. A record is considered coherent if there is "a steady and developing flow of ideas regarding relationships and their influences" (Main and Goldwyn, 1984, p. 18). In contrast, a record is considered

incoherent if there are contradictions which the subject does not recognize, if the subject loses track of the question or the topic, or if there are oddities in the speech pattern (e.g., out of place remarks, unconnected ideas, etc.). The lack of cognitive differences across attachment groups provides substantial support for the notion that attachment classifications are descriptors of particular types of internal working models of the self in relation to attachment which direct feelings, memory and cognition, and verbal and non-verbal behavior (Main, et al., 1985), independent of intelligence.

B. Attachment Stability During Pregnancy

Although subjects in this study were drawn from a homogeneous, middle-class sample, the proportion of secure attachments in this sample (39%) was significantly lower than expected. In previous studies using the AAI, secure attachments have occurred about 70% of the time (Main, et al., 1985; Grossmann, et al., 1987). Among infants, the rate of secure attachments is between 65% and 75% (Ainsworth, et al, 1978; Belsky and Isabella, 1988). For lower class, high-risk samples (Egeland and Farber, 1984; Levine, 1990), the rate has been considerably lower.

The fact that more than 60% of the present sample was insecure may be explained in several ways. First, there may have been a selection bias in this study. Women were invited to participate with the promise that they would learn about parenting and child development from clinical and developmental psychologists over the course of their involvement in the project. It is possible that women who chose to participate in this longitudinal project were disproportionately insecure about their parenting abilities.

Alternatively, it is possible that pregnancy itself is exerting a

temporary effect on security of attachment. This would be consistent with Bibring's (Bibring, et al., 1961) theoretical ideas regarding the temporary disequilibrium which accompanies pregnancy. If this latter argument were true, the post-partum attachment scores of these subjects, which is beyond the scope of this research, should more closely resemble those of other middle-class samples. To date, there are no other studies on the effects of pregnancy on attachment classification; this, in fact, is one of the goals of the Pregnancy Project, the larger study from which this small sample was drawn.

IV. Limitations of the Study

All conclusions based on the results of this study must take into account the small sample size. Many more subjects will be needed to validate these results. In addition, the homogeneity with respect to race, culture and SES limits the generalizability of these findings to more diverse populations.

As described in the preceding section, the distribution of attachment classifications raises the possibility that there is a selection bias operating. Future recruitment efforts should make use of procedures which would more closely approximate random sampling. In addition, on the Rorschach, inconsistent administration of tests was noted. It is not clear whether this problem extended to the administration of other instruments, but more careful training and supervision will be required in the future.

The most serious limitation of this study is its use of a newly-developed, previously untested instrument. Further studies are needed to demonstrate reliability and validity of this interview as a measure of the

affective component of body image.

V. Recommendations for Future Research

Several suggestions are offered for future research. A larger, longitudinal study, following women throughout pregnancy, would address many of the questions which are left unanswered in the present study. Heterogeneous and more diverse groups also need to be studied. Future research must attempt to provide concurrent validity for the Pregnancy Interview as a measure of body image. Other reliable instruments which tap the affective component of body image but which don't rely on an AAI-type interview, are needed to demonstrate the validity of the three body image patterns. Further validity might also come from interviewing husbands regarding their spouses' body image experiences. Finally, a body image interview of this type might be very useful in assessing differences among clinical populations, such as eating disorders patients, in their body image disturbances.

VI. Conclusions

This preliminary study demonstrates that a woman's affective experience of her body image during pregnancy is significantly related to her state of mind with respect to attachment relationships. Given the mounting data on the inter-generational transmission of security of attachment and the poorer socioemotional outcomes in children with insecure attachments, the study of body image may enhance our understanding of the mechanisms by which attachment is transmitted across generations. It is hoped that such efforts might one day lead to the development of primary prevention programs for at-risk children and

further our understanding of the nature of body image disturbances in patient populations.

APPENDICES

APPENDIX A

THE PREGNANCY PROJECT:
PREGNANCY INTERVIEW

Arietta Slade
Laurie Grunebaum
Linda Haganir
Mary Reeves

The City College and Graduate Center
of the City University of New York

March, 1987

Revised October, 1987

Please do not duplicate or circulate without permission

The Pregnancy Interview

Introduction: This is the interview that is going to be about the emotional experience of your pregnancy. As you probably know, very little is known about what women think about and feel during the course of their pregnancies and our lab is very interested in finding out more about what this experience has been like for you and what kinds of changes you've been through. The whole interview will probably take us about an hour.

Questions:

1. Can you start by telling me why you wanted to have children?

Prompt: Why did you want to have a child at this time in your life?

2. How did you feel when you found out you were pregnant?

Comment: Here, we are looking for the subject's affect about knowing she was pregnant in the first days and weeks. Be sure to get elaboration if necessary. For example, if subject says she was scared or excited, find out what she means by this, what she was scared of or excited about.

Prompt to help subject elaborate if necessary.

3. What was your husband's [or baby's father] reaction when you became pregnant?

Prompt: What was he _____ about? (e.g, scared or excited)

In what ways was your husband's reaction to finding out you were pregnant similar to yours and in what ways was it different?

Comment: Looking for his affect about early pregnancy here. Again, be sure to ask for elaboration about specific feelings.

4. What kinds of changes have you made in your lifestyle during your pregnancy?

Prompts: Have you had to adapt your diet, physical activity, sleep schedule, work habits or other aspects of your life?

How did you feel about making these changes?

Comment: Here we are interested both in whether subject has in fact made any changes as well as in how she feels about having had to make these changes---does she feel happy, deprived, etc.? If the subject brings up emotional changes, explain that we'll be getting to emotional changes in a minute but for now we're specifically interested in changes in habits and patterns.

5. Now we're going to talk some about what your pregnancy has been like for you emotionally. Have there been aspects of the pregnancy that have been emotionally difficult for you?

Prompt (if subject does not bring it up spontaneously):

Have there been times when you've felt needy or unsupported or worried or just surprised by your emotional state?

Have you had any concerns about the well-being of your baby?

6. How have you dealt with these feelings?

Prompts: Is there anyone (or anyone else) with whom you can talk about your difficulties in pregnancy?

Comment: Be sure to find out how subject has dealt with her feelings of neediness, etc.

7. In addition to these difficult feelings, have you had any other strong feelings during your pregnancy?

Comment: Here, we're looking for positive feelings, but don't prompt for these.

8. What's the pregnancy been like for your husband emotionally and how has he handled these feelings?

Prompt: Has he had feelings of neediness, loneliness, rejection, or other fears?

How has he dealt with these feelings?

9. In what ways has your relationship with your husband been affected by your pregnancy?

Prompt: Has your sexual relationship with your husband been affected by your pregnancy?

Comment: Be sure to find out subject's feelings about any changes in relationship with her husband.

10. What do you expect the relationship with your husband to be like after the baby is born?

Prompt: How do you expect him to be involved with the baby?

Comment: We are trying to find out, indirectly, whether the subject feels satisfied with her expectations of her husband and whether she feels she can count on him for emotional and/or caretaking support.

11. Now, we're going to go back to talking about your feelings about the baby during pregnancy. When would you say you first really believed there was a baby growing inside of you? How did this affect you?

Prompt: How did it affect you when the baby first started moving?

How does it feel to have a baby growing inside of you now?

12. Would you say you have a relationship with your baby yet? How would you describe it?

Prompt: For example, do you or your husband ever talk to your baby, do you have a nickname for your baby, or are there things you imagine about your baby?

- 12a. What do you imagine your baby will be like?

13. Do you know the sex of the baby?

If "yes": How do you feel about it?

If "no": Do you have a preference or feelings either way?

14. Now we're going to talk about becoming a mother. Do you have a sense of your baby's growing dependence on you and how do you feel about this?

Comment: Here we are trying to find out, indirectly, whether the subject feels the baby is taking from her, depriving her, etc. or whether she enjoys the baby's needing her.

15. Do you have a sense of whether your baby needs anything from you now?

Prompt: How do you feel about responding to those needs?

Comment: Be sure to find out what subject feels her baby needs, e.g., protection by subject, good health of subject, etc. We are trying to get a sense of whether the subject can identify with and respond to the needs of her baby yet.

16. How comfortable do you feel about taking care of your baby once it's born? What do you think this will be like for you?

17. Have you thought about whether you'll bottle-feed or breast-feed your baby?

Comment: Make sure to find out why they've chosen one or the other and how they feel about their choice (i.e., certain, ambivalent, etc.).

18. When you think of your baby's earliest months, what do you imagine will be the most pleasurable times with your baby?

19. What do you imagine will be the most difficult times in your relationship with your baby?

20. What are your current plans for caretaking after the baby is born?

Prompt (If subject is planning to return to work): What kind of babysitting or daycare arrangements have you thought about?

Comment: Try to get a sense of whether the subject anticipates feeling in need of help after the baby is born and whether there is anyone she can count on to help her (e.g., mother, mother-in-law, husband, etc.)

21. What kinds of feelings have you had about your own mother during your pregnancy?
22. Have these feelings affected your actual relationship with your mother?
23. How do you think your early experiences of being parented have affected your feelings during pregnancy?
24. In what ways do you imagine you'll be like your mother as a parent? In what ways do you imagine you'll be different?
25. Are there things that you're afraid you'll do as a mother that you wish you wouldn't?
26. In what ways do you think that being a parent will change your life? How do you feel about these changes?

Prompt: What kinds of changes in your lifestyle do you anticipate having to make and what will this be like for you?
27. Has the way you think about yourself or the way you view yourself as a person changed since you've been pregnant?

Prompt: Do you feel like a mother yet?

Interviewer: Now we're going to switch gears slightly and talk about your feelings about body changes during pregnancy. As you are probably well aware of by now, one of the most dramatic experiences of pregnancy is how much your body and your appearance change over the course of these nine months. I'd like to ask you some questions about what this experience has been like for you as well as about how you felt about your body before pregnancy and even back when you were a child.

- 27a. How have you felt about your body and your appearance during your pregnancy?

28. How early in your pregnancy did you first notice changes in your body and appearance?

Prompts: What was it like when you first realized you couldn't wear your own clothes anymore?

When did you begin to wear maternity clothes and what was this like for you?

Who shopped with you for maternity clothes?

How did you feel about looking pregnant?

Comment: Be sure to find out how subject feels about changes in appearance, about wearing maternity clothes, about looking pregnant, etc.

29. How has your husband's experience of your body during your pregnancy been the same as yours and how has it been different?
30. How do you imagine you will feel about your body and your appearance once your baby is born?
31. Can you remember how you felt about your body or your appearance when you were growing up? Are there any specific incidents or memories that illustrate these feelings?
- Comment: If subject describes a shift in feelings about her appearance at some point in her life, find out what brought about the change.
32. Did you get any sense of how your parents or anyone else in your family felt about the way you looked when you were growing up? Can you remember any specific incidents that illustrate this attitude?
33. How do you think your feelings about your appearance when you were young have affected the way you feel about your body as an adult, especially now during pregnancy?

34. I'd like you to try to remember watching your mother getting ready for a social event when you were a child. Try to remember:
- a. whether she took a bath or a shower;
 - b. what parts of her body she touched;
 - c. what she was feeling while getting dressed;
 - d. whether her clothes fit;
 - e. whether she used make-up;
 - f. whether her mirror image pleased her;
 - g. how comfortable she felt with herself; and
 - h. how you felt watching her.

I'll give you a few moments to think about it, then I'd like you to describe what comes to your mind...

35. How did your father feel about your mother's appearance when you were a child? How did she feel about his appearance? Do any specific incidents or comments they might have made to each other come to mind?
36. How do you think their attitudes about appearance influenced the way you feel about yourself physically?
37. I'd like to finish up the interview by asking you how satisfied you've been, overall, with your pregnancy? Is there anything you would have wanted to be different?
38. Is there any other aspect of your pregnancy that has been important to you that we haven't asked you about?

Appendix B

THE PREGNANCY INTERVIEW:

Body Image Coding System

Linda Haganir
February, 1990
Revised May, 1990

The body image questions on the Pregnancy Interview (Slade, Grunebaum, Haganir and Reeves, 1987) assess two major aspects of body image: 1) the subject's affective response to her pregnant body and 2) her body image prior to pregnancy (i.e., during her developing years). For each of the two components of the interview, three patterns are described. These patterns and examples of each are presented below. A given subject may not be exemplary on all of the criteria for each aspect of body image, but should nonetheless be assigned to the best fitting pattern (i.e., the pattern for which she fits most of the criteria). A subject need not necessarily fall into the same pattern for both aspects of body image, although it is likely that most subjects will show consistency from pre-pregnancy to pregnancy.

AFFECTIVE RESPONSE TO PREGNANT BODY

Pattern 1: Stable/Accepting

This subject's affective response to pregnancy is characterized by acceptance of or even delight about early changes in the body; acceptance of or excitement about wearing maternity clothes; acceptance or enjoyment of husband's response to her pregnant body; acceptance or enjoyment of pregnant appearance; and/or a realistic and accepting view about her body after delivery.

Examples:

1. Subject notices early changes in her breasts, waist, figure, etc. and responds to them with acceptance or delight. In some cases, subject may seem awed by these changes:

I noticed changes in my breasts right away...I liked the fact that my breasts got bigger...I just always liked how pregnant women looked.

Third or fourth month—um, um, ah, well, of course, wait a minute, back up (laughs). Changes in my breasts, sensitivity and things like that were early, probably six weeks or less...

2. Subject is accepting of need to wear maternity clothes and may be excited about or eager to wear them. Even if there is some initial ambivalence, she ultimately enjoys this aspect of pregnancy. She may state that she is excited about maternity clothes because she enjoys looking pregnant.

I loved it when an aunt had given me a maternity top when I was about 2 months pregnant and I put it on just to see what it looked like and I couldn't believe...that I would ever fit into it and I thought I couldn't wait for the day when I would be that big and I couldn't wait till I could wear it...

I didn't have a problem with that...I just went out and got some maternity clothes—faced facts and bit the bullet (laughs).

I was surprised at myself that I was willing to look at the larger sizes and actually buy them and accept that I was that size...

3. Subject enjoys and shares in her husband's response to pregnant body or accepts husband's enjoyment of her body even though she does not share his view. She is able to take pleasure in her husband's attraction to and affection for her pregnant body. If husband is ambivalent about her pregnant body, subject's view of herself is not swayed by his ambivalence.

He's always taken a real pride in my body.

Marveling at the fact that this happens to a woman...I think he's jealous...He says he finds it incredibly sexy. He loves it, you know, which I don't exactly understand, but okay (laughs).

From the very beginning, he would notice the changes that occurred...my stomach was really getting bigger, around the 4th or 5th month. And I would see him rub my stomach or give me hugs and be very affectionate...He's given me so much strength that I like, that at times when I feel...like a cow or a beached whale...and that much more support and affection, so it's great, it balances me out.

4. Subject enjoys pregnant appearance and looking pregnant. She may clearly state or imply that changes in her body are desirable and worthwhile in order to have a baby or if changes are not enjoyable, they are accepted. Subject may describe negative feelings about pregnant body but does so using humor.

I didn't feel so great about the way I looked until I could, you could tell I was pregnant and I wasn't just putting on weight.

...at times when I feel...like a cow or a beached whale...

...I've noticed changes in my body—but feeling that it was temporary and that the important thing now was that I was creating a healthy baby.

5. Subject is realistic about body returning to normal after delivery. This is not S's major goal, however, nor is she preoccupied with these thoughts during pregnancy. She accepts that her body will change (i.e., return to normal) over time. If wish is expressed for more immediate changes, this is done with humor.

It [appearance after the baby is born] can only get better!
...I'm also thinking about, not right after the baby is born, but 6 weeks, 8 weeks, you know, after, uh, I've started getting my figure back um, you know, I think about that more than I do the day the baby's born.

Oh, uh, I'd like it to immediately return back to my, um, former self (laughing). Um, I don't know how long it will

take...

Pattern 2: Negative/Conflicted

This pattern is characterized by the subject who does not like or is ambivalent about changes in her body and has trouble adjusting to these changes, the subject who does not want to wear maternity clothes or who wants to wear them to hide her body rather than to look pregnant, the subject who is unable to share in her husband's excitement about her body, the subject who is not comfortable with her pregnant body or appearance, and/or the subject who is worried about restoring her body to "normal" after delivery.

Examples:

1. Subject does not like changes in body or is ambivalent about the changes. Subject does not describe changes in a positive or excited way. She may have trouble adjusting to or accepting her pregnant body and may seem to miss her pre-pregnant body.

Didn't like it much, tried to choose looser clothes and the ones that would camouflage my shape a little bit.

I started gaining weight in the first couple of weeks, I just started filling out...I didn't like it (little laugh). I felt depressed...I felt fat...it was unbearable to wear them [my clothes]...it freaked me out a little bit, you know, looking at the physical changes...I felt a little grossed out by it.

2. Subject is negative or neutral about maternity clothes or wants to wear them so she doesn't look fat, distorted or pregnant, rather than because she enjoys looking pregnant. She may try to hide pregnant body as long as possible.

Another woman at work who's pregnant started wearing maternity clothes...I decided, well, I might as well start...So, I it was important to me to get out of regular clothing, because, you know, then I just I didn't feel fat anymore.

Once my clothes were tight I bought some maternity clothes and it did not quite show that I was pregnant yet...it didn't bother me, I really didn't mind it, kind of interesting.

3. Subject does not talk readily about husband's reactions or feel proud of his reaction. If he is accepting, S. does not share in his excitement about her pregnant body. Husband's reaction may also be

described as negative. Reader may have sense that S. is trying to convince herself that her husband accepts her body.

He doesn't think I look ugly, I know that...I think he was quite aware of certain faults of my body when we got married so he's probably not too concerned.

He loves it (little laugh). You know, he (little laugh) I know some men's husbands, some women's husbands don't like it, but he doesn't have any problem with it at all.

4. Subject is not comfortable with pregnant body. She regrets loss of her non-pregnant body, although she may try to appear accepting.

Well, you just look really distorted when you're naked (little laugh). Like you don't look fat, you just look a little distorted...I don't really know, I think I'll just be really glad that it's over.

I looked much better when I wasn't pregnant. I was quite comfortable with my body. I was in good shape. I exercised and everything...I was a little surprised [when I looked in the mirror at my body]. I remember thinking my thighs have never been this big...I'm not concerned about the way I look when I'm pregnant because I know pregnancy can't be helped.

5. Subject is worried about getting back into shape after delivery, although this may or may not be admitted. She may describe her body as almost having been "broken" by pregnancy and needing to be fixed.

What I'm concerned about is after I give birth, I know I should not lose weight too fast because I'll be nursing. And I know that I was reading somewhere that pregnant women have such an amount of fat in her body, internal fat cells, and those fat cells are not gotten rid of so easily, even if you lose weight, those fat cells are there. So, after pregnancy, I'm going to have to work very hard just to be fit, I'm not even going to say _____, just to be fit.

I haven't really thought about it. I mean, I imagine that I'll still—I've heard you still look pregnant after. And, uh, I'm sure I'll be able to get my body back together. I'm a little concerned that I'll have stretch marks, but I don't know if I will.

Pattern 3: Unstable/Overly-focused

This pattern is characterized by subjects who are extremely focused on changes in the body and weight, although they do not necessarily like or dislike these changes. Frequent vacillations from positive to negative body image may be detected. In addition, they may be ambivalent about maternity clothes, unable to focus on husband's response to pregnant body, ambivalent about but very focused on their pregnant appearance throughout pregnancy and/or very concerned about returning to "normal" after delivery.

Examples:

1. Subject is very focused on changes in body and weight and does not necessarily like or dislike them. Her opinion may vacillate quickly. She tends to describe changes in great detail, using superlatives, often rambling and drifting off the topic. Her responses may seem somewhat disjointed and incoherent. Reader has the sense that her body and weight are more important to S. than the baby.

Right away [I noticed changes]. Almost. Um, well, I had a twin sister who was pregnant...so I saw what her body looked like—I saw, you know, the color of her nipples...and the weight gain she experienced. She gained alot more weight than I've gained...so I was very weight conscious through the whole time. The 1st trimester, I lost a few pounds and I was worried, even though I shouldn't have been...[S. continues on and on about weight gain.]

Oh, actually (laughing), two days after I conceived. You deny [that you can't wear your own clothes anymore] to a certain extent. I mean, you think, aw gee, that thing was really big on me anyway (laughs), I mean small on me, anyway. And you ask no it wasn't. So you sort of, a certain amount of denial at first, I think. And then, but I mean there's also a happiness because you feel like your body is going through these proper changes. And it is right and then you always think, well, what's the average? I mean, like that was always a big joke between me and my husband, like "I'm too big! I'm too small!"...so I sort of vacillate between like you know worrying about like what's the aver...you know, am I...

2. Subject is ambivalent about maternity clothes. She often decides not to wear maternity clothes and gives elaborate explanations for this. She may find maternity clothes unstylish or ugly and is proud of getting away with larger, non-maternity clothing. Alternatively, she may report that she is excited about maternity clothes and looking pregnant, but this is often contradicted elsewhere in the interview.

I must confess that when I first found out, I had to go out and buy maternity clothes right away cause I just couldn't

wait...Um, well, it wasn't—you see those clothes I bought—
—it was like what I'm wearing now. They're not—you can't
really tell they're maternity clothes—they're just stretch
clothes—they way—I do buy them in a maternity store.
Um, I, all of the clothes I bought can be worn after
pregnancy, even though they're maternity clothes. It's
exciting, like, you know, I couldn't wait to wear them.

Well, as you see, I mean, I'm still not really. I mean,
this is not maternity. The pants are, the top isn't. Um, I
had a very long stage where I couldn't fit into my regular
clothes and I couldn't fit into maternity clothes. So
that's a very hard question to answer, I mean at about three
months, I was not wearing my jeans. I couldn't wear my
jeans. I couldn't wear, but thank God, you know, those
stretchy pants, those leggings. That's what I wore because
they stretched, so. That, I started having to wear them in
my third month. And then the big sweaters were in. So I
wore regular clothes for a while and then when I had, when I
went to Florida in January, two days before I went, I
started figuring out what I was gonna wear. That was very
traumatic experience because I did not have any summer
things to wear. And I ended up getting larges in regular
clothes because I, maternity things look so silly on
me...[continues on].

You see, I never really wore maternity clothes. I just
bought dresses that were a bigger size, you know, that kind
of thing. Um, I guess I wasn't really wearing maternity
clothes...so about my fourth month, I started, I bought
like, really, you know, big sizes, you know, like large size
dresses like this. And, you know, it felt good because I
didn't buy these ugly maternity clothes. I was able to
avoid it, like I really found some, some nice clothes that I
could buy...[continues on].

3. Subject tends to ramble when talking about her husband's response to her pregnant body. She goes into unnecessary detail and continues to give the impression that she is very focused on her own response to her changing body. The reader does not have the impression that S. experiences an emotional bond with her husband vis-a-vis her body. S. may report that husband reacts negatively or is ambivalent about her body.

He's been conscious of my big stomach. He says, for the first time, I've always had a big stomach, you know. He says, for the first time—my stomach makes my breasts look small cause I used to have big breasts and um—he—he likes the changes, you know, he, he's not turned off by it—I thought he would be but he's not. I asked him last night if he—how he would feel making love to me after seeing the baby come out. He said he didn't know and it kind of scared me (laughs). So—I don't know if he, um, I don't think he

dislikes any part of my body. He said I've gotten bigger buttocks, you know. I didn't think so—he says I have.

Well, he certainly agrees with my pleasure at my bust change. And he likes my stomach. I, he did make a comment like last week that he missed my flat stomach. I have a, used to have a really small waist for my figure. And I didn't realize he really missed it but I guess he does. Um, I think he's been more accepting of it than I have. But I know that he still is probably not telling me all because he knows I'm very sensitive about it.

Um, well, my husband, I think, was very, uh, you know, he liked my body when it was getting bigger. You know, like my breasts were getting, they're always, I always am pretty busty anyway but I think he kind of, you know, liked that and thought it was really sexy, which sort of surprised me because I mean I know people who have had terrible marital problems during pregnancy because the husband's really turned off of the wife's body...[continues on]...I mean, he, he's been okay about it.

4. Subject is clearly ambivalent about her pregnant appearance. She continues to be overly-focused on her pregnant body well into pregnancy and may even still feel traumatized by the bodily changes. If she does report positive feelings, these are not always convincing to the reader.

My rear end grew incredibly, just hugely, and my thighs (sigh) that's what grew. So that's very traumatic, even if you're not pregnant (laughs).

5. S. is very concerned about regaining pre-pregnant shape. Reader has sense that S. is preoccupied with these thoughts throughout pregnancy and that she is more concerned about this issue than motherhood itself.

I spend alot of time thinking about it. Well, I think that, um, well, it's really important for me not to gain too much weight and it's a very big de—I've mentioned a few times it's a big deal to me. Um, I, you know, some people say to me, "oh, you're doing alot of exercise but it won't affect you. You have the baby, you're just like flabby, you know." To tell you the truth, I've never felt in better shape in my life...[continues on about her exercise]...Now I feel like I would like to right away get back to exercising. I mean the doctor says wait six weeks and that just seems like too long for me to wait.

The real fear is it gonna go away. You know, everyone keeps saying it's gonna go away, but how could it possibly go away, it's fat! ...I'm also s'posed to be the bridesmaid in a wedding like right after the birth, like a month later, and I've got to lose it.

Um, I think, well, I'm trying to talk myself into it—coach myself into thinking well, it's a temporary process. You've, you know, when you breast feed your breasts will get smaller and your—hopefully, you'll lose weight through breast feeding and it'll just take time and you have to give yourself six months or more to lose all that weight and I I'm more conscious of pregnant women losing weight after, you know, or every time I see women who just gave birth, um, then I, you know, I think of how it takes time—this morning I heard that Bette Midler just had a baby and she looks humongous and she just hasn't lost weight yet and so I—you know, ha ha it happens (laughs). It takes time. I get jealous of women who are very thin after their baby comes...[goes on and on]...so I'm trying not to feel so paranoid about it. But it's hard.

PRE-PREGNANCY BODY IMAGE

Pattern 1: Stable/Accepting

This subject's body image experiences prior to pregnancy were characterized by average to positive feelings about her body which were reinforced by her family and/or the perception that her mother felt good about her own body.

Examples:

1. S. felt good about body growing up, or if there were negative feelings, these are balanced out by positive or supportive feelings from family members or an active working through process after childhood.

I remember always thinking I was too skinny—I was a really bony kid and I wanted to be fuller. Um, I tried to be—I remember I tried to eat more so that I would look fuller...I was flat chested and I was teased [by other kids].

(Parents?) I always got a lot of positive feelings from them about the way I looked—I don't remember having any negative ones. I don't think they thought I was too skinny.

(Now?) I don't think I'm too skinny anymore (laughs). Um, I don't know, that's, I've been through a lot of changes since then, you know, I don't—once I went to college or after college, I wasn't too skinny anymore, um. I think I've always had a pretty good body image or self-image about my body...I've always liked the way that my body was, for the most part.

Oh yeah, definitely. I was the tallest kid in school, in my class, um, and I was also one of the bigger kids in school...I was very self-conscious about being so big and it took me a long time to get over that. I was well into adulthood before I finally got over that...I hated being big. (Parents?) Oh well. my father's pet name for me, nickname is "G.P." Stands for giant pachyderm, so I suppose that he sort of, you know, fed that. Um, my, um, my mascot, for a, a girl's club that I was involved in was an elephant (laughs). Um, and my grandmothers used to have fits over this because I think that they were more sensitive to it than—because of my sensitivity—than my parents were or my brother was...Well, obviously my father felt it was real funny that he had a large economy-sized daughter...I don't think that he meant, you know, in a cruel way or anything like that...So it [size] was always a stigma and I don't know whether it was, um, I eventually personally came to terms with it, and, uh, said: "No, this is the way it is, so, you know.

Yeah, I think ever since I was a little kid I've noticed

that I was um a, a very sturdy kid. I mean other little, um, playmates would be shorter and their limbs would be slighter than mine...I always thought I was, um, substantial...I was the tall one that was singled out for whatever reason, whatever good reasons, holding the banner or whatever, being at the end of the line and um...I remember in late grade school, being uh, feeling like people gave me a lot more sense of being a woman (laughing) with authority. I was very popular...I had good friends. So I thought something might have to do with my stature. (Parents?) It was always very positive. Um, I think my parents were always, um um, conscientious about just being in good physical shape.

2. S.'s perception of mother's appearance (when S. was growing up) is positive and S. has pleasant memories of watching mother get ready to go out. S. may be aware that mother's body image was not altogether positive, but S. thought mother was attractive or beautiful.

We always used to know when Mom and Dad were going out, you know for a dinner or, you know, going out with other couples and it was usually—the memories that I have of it were usually of them getting very dressed up, um, for all the um—but I don't know how Mom did it right now really thinking about it but, um, it must have been between pregnancies where she (laughing) was wearing dresses that were very beautiful. She used to have dresses that had very bold backlines or...where the waistline was very fitted...I remember this one dress...and I can remember the smells of the perfumes...Sometimes I'd help her try and zipper the girdle up. Um, that was fun...I remember, um, after she put on lipstick she'd sort of look in the mirror and assess herself, get another view of her face, you know, as if she were posing for a picture...I think that at the time, she had very beautiful things she liked to wear.

Well, I know she took a bath, but, um, my mother is very modest and really never would expose parts of her body to us...um, she was always very bubbly and up when she was getting dressed to go out on an occasion. Um, her clothes generally fit. She's, she's almost the opposite of I, eh, that I am. She's very short and she's buxom and sort of round instead of being slender, she is kind of round and um, she made her own clothes and generally if she had a big fancy occasion to go out on, you know, she would have made herself something new to go...I think she's generally comfortable with herself. I think that she has fears that she feels fat or round sometimes, too...but...I always thought she was the most beautiful mother anyone could want.

I remember very vividly watching my mother get dressed and being fascinated by it. Um, I also remember a very early memory of th-the feeling from when she used to feel

comfortable just getting dressed and being naked in front of us...I really remember her just getting dressed up because, you know, after I was 10, she would date, so I would see her and I would watch her get dressed for her dates and I could picture her standing in front of a mirror and putting on her make-up and she used to like make her face in a certain way where she would like put her lips together and pull like that and just look at herself...my mother's beautiful, and um, she's always been told that but I don't think she really believes it...I used to like love to watch her brush her hair—that was such a treat, you know. Th—cause she, um, I can't describe to you like how thick it was and how, it was such gorgeous hair...

3. S. recognizes and can describe how parental attitudes about weight and appearance have influenced her, whether positively or negatively. Or, if S. does not see link between parental attitudes and her own attitudes, it is because appearance was not emphasized in the family and there was an implied acceptance of S.'s appearance.

Pattern 2: Negative/Dissatisfied

This subject's pre-pregnancy body image is characterized by negative feelings about her body and lack of support from the family regarding her body. In addition, this subject may have been aware that her mother was ambivalent about her own body image and subject may appear disappointed in her mother in this regard.

Examples:

1. S. did not have good body image growing up and did not feel supported in terms of body image by her family. There may be contradictions between S.'s reported body image and the examples she gives. S. may downplay the importance of body image growing up in her emotional development.

I was anorexic for a while...for about three to four years...so that was not really when I was growing up, but obviously, that came from previous problems (little laugh) with my family...I was just very unhappy...I wouldn't eat that much and I exercised all the time...I didn't see it. That's part of the problem, like you always think you're fat (little laugh) even if you're skin and bones...My mother never took a big interest in me, you know, looking, you know, nice or like, you know, a woman or teenager or anything. She always kind of put that down. So I never really knew how to dress or wear makeup or anything, when I was growing up...I always felt I was scrawny—I was always all skin and bones...I was always flat-chested, and I was always like the skinniest in the class. Like, I was so thin, my mother had to like make me clothing (little laugh).

And then—and then I started filling out in college. So, I don't really know why my body was like that...I felt bad. I mean, I felt bad that all the other girls had figures and I didn't have a figure...my younger sister is built differently than me, she's like, chubbier, so they were always like teasing her, you know, because she was a little on the chubby side...and they also treated me as weak, like they called me princess, you know, like almost like I couldn't do anything. And I happen to be very strong physically.

I was really skinny, at one point that I remember. Of my early teens I was very skinny and smaller than most kids. I looked younger than my age and I think that bothered me at the time. I could not get any attention from boys...I looked cute when I was little, I've seen pictures. I don't remember myself when I was two or three, but otherwise, not really, no. It wasn't a great concern most of the time. (Parents?) I think they thought I was quite attractive, both my parents...I think they thought I was a good looking enough kid, no problem...I think there's been some concern about my shape and the ideas that I think's been put into my head by my father that how fat or how thin you ar—you have a good deal of control over how fat or how thin you are and what shape you have. I've always been somewhat conscious of that since my teens.

2. S. may or may not have perceived her mother as attractive but she is aware that her mother was ambivalent about her appearance. This may have been due to mother's negative body image or perhaps to father's negative attitude towards mother's appearance. Although S. may have enjoyed watching mother dress to go out, there is a distant quality to this description (relative to Pattern 1) and S. appears to be disappointed in mother's body attitudes. Alternatively, she may have little recollection of mother's attitudes about appearance.

I remember thinking that when she dressed up to go out, she always looked really nice. She was always really in a hurry, though, like, she didn't have it al—she never had her outfit planned out. Um, and she wore make-up—she would put on eye make-up. And she would shower, but it was always very rushed. You know, like very much last minute, like five minutes before they were going, she would just throw everything on...I don't think she ever felt, like, everything was right about what she was wearing. But she made the best of what she had...I really admired her, when she dressed up.

She wore make-up and she has very nice clothes to wear when she went out. And she was very pleased, always very pleased with the way she looked...Unless she was in a hurry, I think she would get dressed in front of the mirror. She emphasized the face quite a bit. She used to wear not alot of make-up but just always working on it...I liked the idea

[of their going out] because ever since I was what eight, nine, they used to leave me alone, at home...I liked that, get to do what I wanted...It was interesting because she was so pretty and she had nice clothes. There was always the smell of perfume and everything and this crisp sort of material, when you wear a suit or something. You know, I could hear the fabric, that was very interesting. It was a pleasant feeling, it was interesting. (Father?) He didn't like it. He wanted her not to wear make-up, not to go to the hairdressers, not to emphasize her appearance so much. She was very concerned alot more concerned with the way she looked than with other things—I think also she should have paid attention to.

3. S. only partially recognizes the impact of her mother's or parent's body attitudes on the development of her own body image. She may try to give the impression that she has moved beyond a concern for parental attitudes, but the reader has a sense that she is still negatively affected by these attitudes.

Pattern 3: Unstable/Overly-focused

This subject's description of her pre-pregnancy body image is characterized by instability, incoherence and an over-emphasis on appearance (usually negative) in the family. In addition, this subject may appear to have little sense of her own mother's body image, of her parents' feelings about each other's appearance and little understanding of how she has been influenced by these attitudes.

Examples:

1. Reader gets the sense that S. did not feel good about body while growing up but S.'s descriptions are often incoherent and disjointed. S. goes off on many loosely related tangents which are confusing to the reader. Body image appears to have been fairly unstable. S.'s parents or siblings may have over-emphasized appearance and were often critical of S.'s appearance or features.

I was always on the chunky side. Um, it's funny. I just remembered that I always—I always imagined myself saying that I'm pregnant when I was growing up cause I really wanted to have a baby. And I thought I was I guess, subconsciously, cause I always had a big stomach, so I'd think there was a baby inside of me, so, um, I was always on the chunky side. It wasn't out of preference. I would've loved to be thinner and I was for about a year, you know. I lost alot of weight when I was in college one year. Um, I've always felt fat, I think, I know there's no question about it...My brother teased me about fat, you know, at my wedding...Um, my mother's always told me that I should lose a few pounds, you know. People always tell me that...But I've always been on the fat side in my family.

[Body image growing up] wasn't great...there's a lot related to my, my bust measurement growing up. There's a lot of very specific things and you don't want to go into that (laughs). You know, a lot of taunting. Even now people do it. It's terrible. They see you're breast-feeding and they go "I didn't think you had enough to spare." I mean, just, I mean women! Women say these things, just lousy things, so, I have bad memories like that. I like my, always liked my legs. I have long legs. Can I answer the question again? I seem to lose track sometimes. (I. repeats question) Yeah, growing up, yeah, I was pretty satisfied. I remember a couple of duds but on the whole, I've been on the thin side, I guess. Average. (Parents?) Yeah, they liked it. They thou—I mean, the, not facia, I mean bodywise. Bodywise I was okay...That's one thing I never had any negatives from my family about, exception to my hair. Does that count? Yeah, hair. This is natural (holds up hair). Used to have it long, wrapping it, rolling it, ironing it, straightening it. My father didn't like it. He'd say: "Go do something with your hair."

I'm always very, like very conscious of the fact that I was, you know that I was pretty busty. You know that was always a very, I'm always ver—like very conscious of the fact that I was, you know that I was pretty busty...And uh I mean I never really sort of saw myself as having like a good figure in a sense but really I used to, I do have quite a good figure... (Parents?) I think my father's the kind of person who wouldn't want me to wear too tight pants or anything because that would be sort of like, he would say: "Oh, those pants are too tight." You know, that would sort of bother him. And I think my father's sort of afraid of me looking too sexy...Like if I wouldn't wear a bra, he'd say to me, you know, like "Put a bra on." And I'd be like (laughs) "Why are you even looking?" Like I'd sort of be sort of surprised that he would notice...you know, he was sort of cognizant of what I, you know, what I was doing with my body.

2. S. may not have been part of mother's "dressing up to go out" ritual or alternatively, she may have been overly-involved and impatient with or critical of mother's appearance and body attitudes. S. may have little sense of how mother felt about her own appearance or may not have liked mother's body image. There may be a discrepancy between S.'s sense that parents or siblings were critical of her appearance and mother's seemingly nonchalant attitude about her own appearance and between subject's sense that her own appearance was over-emphasized and her lack of understanding regarding her parents' attitudes about each other's appearance.

She hardly went out and hardly dressed up and did not wear make-up. There was one time...she was going to a wedding and she really dressed up for this wedding—she just bought a new outfit and she looked really good and she even wore

lipstick and had her hair done. I did not see her until after she got ready, and I thought she looked really beautiful. I was really surprised it was my mother.

Well, I can tell you one thing. I don't ever remember my mother taking a shower or a bath. I don't. The door was always closed. Um, very, very rarely did I even see her in her underwear. I think she was hyper-critical of herself, too, but she liked putting on her make-up and fixing her hair.

Well, see I don't really have a lot of images of that, to be honest with you. Um, you know, maybe my mother would take a shower, because I think that, I guess, my mother would take a shower, I imagine. Because my mother has also changed. I mean, I've discussed with her... (S. goes on about how her mother's attitudes about appearance have changed)... I, well, I don't think my mother's one of these people who sat in the mirror and did her hair. I mean, she's, she's totally not like that... I mean, I guess I can sort of remember a p—a smell of perfume... coming down the stairs, but it wasn't as though I sat around and watched her. I really just can't even think of that now.

3. S. gives the impression that mother or parents' attitudes have influenced her, but does not present this in a cohesive, articulate way.
- S. is flooded with feelings, but can't articulate a convincing story.
- S. seems to still resent her parents' influence on her body image.

PLEASE NOTE

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

**Body Image Questionnaire
117-127
Pregnancy Symptom Checklist
128-131**

University Microfilms International

REFERENCES

- Aber, J.L. and Slade, A. (1987). Attachment theory and research: A framework for clinical interventions. Paper presented at the Regional Scientific Meeting of the Childhood and Adolescence Division for Psychoanalysis of the American Psychological Association, January 10, 1987.
- Ainsworth, M.D.S. (1979). Attachment as related to mother-infant interaction. New York: Academic Press.
- Ainsworth, M.D.S., Blehar, M.C., Waters, E., and Wall, S. (1978). Patterns of Attachment: A psychological study of the strange situation. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Anastasi, A. (1982). Psychological testing, 5th edition. New York: Macmillan.
- Anthi, P. R. (1986). Non-verbal behaviour and body organ fantasies: Their relevance to body image formation and symptomatology. International Journal of Psychoanalysis, 67, 417-428.
- Belsky, J. and Isabella, R. (1988). Maternal, infant, and social-contextual determinants of attachment security. In J. Belsky and T. Nezworski (Eds.), Clinical implications of attachment. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Benedek, T. (1959). Parenthood as a developmental phase. Journal of the American Psychoanalytic Association, 7, 379-417.
- Benedek, T. (1970). The psychobiology of pregnancy. In E.J. Anthony and T. Benedek (Eds.), Parenthood: Its psychology and psychopathology (pp. 137-151). Boston: Little, Brown and Company.
- Bergman, A. and Slade, A. (1984). The clinical assessment of toddlers. Paper presented at the Margaret S. Mahler Symposium, Philadelphia, May 12, 1984.
- Berscheid, E., Walster, E. and Bohmstedt, G. (1973). The happy American body: A survey report. Psychology Today, 7, 119-131.
- Bibring, G.L., Dwyer, T.F., Huntington, D.S. and Valenstein, A.F. (1961). A study of the psychological processes in pregnancy and of the earliest mother-child relationship. Psychoanalytic Study of the Child, 16, 9-44.
- Bowlby, J. (1969). Attachment and Loss: Vol. I. Attachment. New York: Basic Books.
- Bowlby, J. (1980). Attachment and Loss: Vol. III. Loss, sadness and depression. New York: Basic Books.

- Bowlby, J. (1988). Developmental psychiatry comes of age. American Journal of Psychiatry, 145, 1-10.
- Bretherton, I. (1987). New perspectives on attachment relations: Security, communication and internal working models. In J.D. Osofsky (Ed.), Handbook of infant development (2nd ed., pp. 1061-1100). New York: Wiley.
- Brown, D.G. (1959). The relevance of body image to neurosis. British Journal of Medical Psychology, 32, 249-260.
- Butters, J.W. and Cash, T.F. (1987). Cognitive-behavioral treatment of women's body image dissatisfaction. Journal of Consulting and Clinical Psychology, 55, 889-897.
- Clifford, E. (1971). Body satisfaction in adolescence. Perceptual and Motor Skills, 33, 119-125.
- Crowell, J.A. and Feldman, S.S. (1988). Mothers' internal models of relationships and children's behavioral and developmental status: A mother-child interaction. Child Development, in press.
- Derogatis, L.R. (1975). Brief Symptom Inventory. Baltimore: Clinical Psychometric Research.
- Derogatis, L.R. and Spencer, P.M. (1982). BSI: Administration, scoring & procedures manual-I. Baltimore: Clinical Psychometric Research.
- Egeland, B. and Farber, E.A. (1984). Infant-mother attachment: Factors related to its development and changes over time. Child Development, 55, 753-771.
- Eichberg, C.G. (1987). Quality of infant-parent interaction: Related to mother's representation of her own relationship history. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Baltimore, Md., April 25, 1987.
- Fisher, S. (1970). Body experience in fantasy and behavior. New York: Appleton-Century-Crofts.
- Fisher, S. (1986). Development and structure of the body image. Hillsdale, N.J.: Erlbaum.
- Fisher, S. and Cleveland, S. (1957). An approach to physiological receptivity in terms of a body-image schema. Psychological Review, 64, 26-37.
- Fisher, S. and Cleveland, S.E. (1968). Body image and personality. New York: Dover Publications.
- Freud, S. (1960). The ego and the id. New York: Norton. (Original work published 1923)

- George, C., Kaplan, N. and Main, M. (1985). Adult attachment interview. Unpublished manuscript, University of California, Department of Psychology, Berkeley.
- Gordon, S.J. (1976). Relationship among anxiety, expressed satisfaction with body image and maladaptive physiological responses in pregnancy. Unpublished doctoral dissertation, New York University.
- Greenacre, P. (1953). Certain relationships between fetishism and faulty development of the body image. Psychoanalytic Study of the Child, 8, 79-98.
- Greenacre, P. (1958). Early physical determinants in the development of the sense of identity. Journal of the American Psychoanalytic Association, 6, 612-627.
- Grossmann, K., Fremmer-Bombik, E., Rudolph, J. and Grossmann, K. (1987). Maternal attachment representations as related to patterns of infant-mother attachment and maternal care during the first year. Paper presented at the Conference on Intrafamilial Relationships, Cambridge, England, January, 1987.
- Grunebaum, L.B. (1990). Adult attachment classification and its relationship to the psychological tasks of pregnancy. Unpublished doctoral dissertation, The City University of New York.
- Harris, R. (1979). Cultural differences in body perception during pregnancy. British Journal of Medical Psychology, 52, 347-352.
- Huganir, L. (1987). The Body Image Questionnaire. Unpublished manuscript, The City University of New York.
- Jamieson, W.J., Jr. (1980). Body experience and the sense of the baby in pregnancy and the early puerperium: A multiple case study. Unpublished doctoral dissertation, University of Michigan.
- Johnson, C. (1985). Initial consultation for patients with bulimia and anorexia nervosa. In D.M. Garner and P.E. Garfinkel (Eds.), Handbook of psychotherapy for anorexia nervosa and bulimia (pp. 19-51). New York: Guilford Press.
- Johnson, L.C. (1956). Body cathexis as a factor in somatic complaints. Journal of Consulting Psychology, 20, 145-149.
- Jourard, S.M. and Secord, P.F. (1955). Body cathexis and the ideal human figure. Journal of Abnormal and Social Psychology, 50, 243-246.
- Kaplan, L.J. (1978). Oneness and separateness: From infant to individual. New York: Simon and Schuster.

- Kobak, R. and Sceery, A. (1987). Attachment in later adolescence: Working models, affect regulation and representations of self and others. Child Development, in press.
- Kobak, R. and Shaver, P. (1987). Strategies for maintaining felt security: A theoretical analysis of continuity and change in styles of social adaptation. Paper presented at the Conference in Honor of John Bowlby's 80th Birthday, London, England, June 21, 1987.
- Kohut, H. (1966). Forms and transformations of narcissism. Journal of the American Psychoanalytic Association, 14, 243-272.
- Kohut, H. (1972). Thoughts on narcissism and narcissistic rage. Psychoanalytic Study of the Child, 27, 360-400.
- Kolb, L.C. (1975). Disturbances of the body image. In S. Arieti (Ed.), American handbook of psychiatry, Vol. 1 (pp. 749-769). New York: Basic Books.
- Leifer, M. (1977). Psychological changes accompanying pregnancy and motherhood. Genetic Psychology Monographs, 95, 55-96.
- Leifer, M. (1980a). Pregnancy. In C.R. Stimpson and E.S. Person (Eds.), Women: Sex and sexuality (pp. 212-223). Chicago: The University of Chicago Press.
- Leifer, M. (1980b). Psychological effects of motherhood: A study of first pregnancy. New York: Praeger.
- Lester, E.P. and Notman, M.T. (1986). Pregnancy, developmental crisis and object relations: Psychoanalytic considerations. International Journal of Psychoanalysis, 67, 357-366.
- Levine, L. (1990). The transmission of attachment patterns across three generations in families of adolescent mothers: An attachment and object-relations perspective. Unpublished doctoral dissertation, The City University of New York.
- Linn, L. (1955). Some developmental aspects of the body image. International Journal of Psychoanalysis, 36, 36-42.
- Lussier, A. (1980). The physical handicap and the body ego. International Journal of Psychoanalysis, 61, 179-185.
- Mahler, M., Pine, F. and Bergman, A. (1975). The psychological birth of the human infant. New York: Basic Books.
- Main, M. and Goldwyn, R. (1984). Predicting rejection of her infant from mother's representation of her own experiences: A preliminary report. International Journal of Child Abuse, 8, 203-217.

- Main, M. and Goldwyn, R. (1985). An adult attachment classification system. Unpublished manuscript, University of California, Department of Psychology, Berkeley.
- Main, M. and Goldwyn, R. (1988). Adult attachment classification system. Unpublished manuscript, University of California, Department of Psychology, Berkeley.
- Main, M., Kaplan, M. and Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretherton and E. Waters (Eds.), Growing points of attachment theory and research, Monographs of the Society for Research in Child Development, 50 (Serial No. 209, pp. 66-104). Chicago: University of Chicago Press.
- McConnell, O.L. and Daston, P.G. (1961). Body image changes in pregnancy. Journal of Projective Techniques, 25, 451-456.
- McCrea, C.W., Summerfield, A.B. and Rosen, B. (1982). Body image: A selective review of existing measurement techniques. British Journal of Medical Psychology, 55, 225-233.
- Meyer, J.K. (1980). Body ego, selfness, and gender sense. Psychiatric Clinics of North America, 3, 21-36.
- Notman, M.T. and Lester, E.P. (1989). Pregnancy: Theoretical considerations. Psychoanalytic Inquiry, 8, 139-159.
- Osgood, C., Suci, G. and Tannenbaum, P. (1957). The measurement of meaning. Urbana, Ill.: University of Illinois Press.
- Peto, A. (1959). Body image and archaic thinking. International Journal of Psychoanalysis, 40, 223-231.
- Pines, D. (1972). Pregnancy and motherhood: Interaction between fantasy and reality. British Journal of Medical Psychology, 45, 333-343.
- Pines, D. (1982). The relevance of early psychic development to pregnancy and abortion. International Journal of Psychoanalysis, 63, 311-319.
- Pines, D. (1989). Adolescent pregnancy and motherhood: A psychoanalytical perspective. Psychoanalytic Inquiry, 8, 234-251.
- Ricks, M.H. (1985). The social transmission of parental behavior: Attachment across generations. In I. Bretherton and E. Waters (Eds.), Growing points of attachment theory and research, Monographs of the Society for Research in Child Development, 50 (Serial No. 209, pp. 211-227). Chicago: University of Chicago Press.

- Rothchild, E. (1979). Female power: Lines to development of autonomy in adolescent girls. In M. Seggar, (Ed.), Female adolescent development (pp. 274-295). New York: Brunner/Mazel.
- Schilder, P. (1950). The image and appearance of the human body. New York: IUP.
- Schonfeld, W.A. (1966). Body image disturbances in adolescents. Archives of General Psychiatry, 15, 16-21.
- Secord, P.F. (1953). Objectification of word-association procedures by the use of homonyms: A measure of body cathexis. Journal of Personality, 21, 479-495.
- Secord, P.F. and Jourard, S.M. (1953). The appraisal of the body-cathexis: Body-cathexis and the self. Journal of Consulting Psychology, 17, 343-347.
- Seggar, J.F., McCammon, D.L. and Cannon, L.D. (1988). Relations between physical activity, height discrepancies, body cathexis, and psychological well-being in college women. Perceptual and Motor Skills, 67, 659-669.
- Shontz, F.C. (1969). Perceptual and cognitive aspects of body experience. New York: Academic Press.
- Shontz, F.C. (1975). The psychological aspects of physical illness and disability. New York: Macmillan.
- Silverstein, A.B. (1982). Two-and four-subtest short forms of the Wechsler Adult Intelligence Scale-Revised. Journal of Consulting and Clinical Psychology, 50, 415-418.
- Slade, A. (1989). Infants and mothers: Pathways to secure attachment. Grant proposal for The Pregnancy Project, Research funded by the National Institute of Child Health and Development, The City University of New York.
- Slade, A., Grunebaum, L., Haganir, L. and Reeves, M. (1987). The Pregnancy Interview. Unpublished manuscript, The City University of New York.
- Sroufe, L.A. and Waters, E. (1977). Attachment as an organizational construct. Child Development, 48, 1184-1199.
- Venezia, D.J. (1972). Correlates of body attitude change in pregnancy. Dissertation Abstracts International, 33, 1300B. (University Microfilms No. 72-24, 245)

- Ware, E.S. (1986). The mother-adult daughter attachment relationship: Its effects on the daughter's adjustment to first pregnancy. Dissertation Abstracts International, 48, 1165B. (University Microfilms No. DA8700697)
- Watts, P.L. (1980). First pregnancy: Its impact on sex role orientation, career orientation, and body image. Dissertation Abstracts International, 41, 3636-3637B. (University Microfilms No. 8106454)
- Wechsler, D. (1981). Wechsler Adult Intelligence Scale: Revised. New York: The Psychological Corporation.
- White, C.M. (1981). The psychology of the self and pathological overeating. Unpublished doctoral dissertation, The City University of New York.
- Wooley, S.C. and Kearney-Cooke, A. (1986). Intensive treatment of bulimia and body-image disturbance. In K.D. Brownell and J.P. Foreyt (Eds.), Handbook of eating disorders (pp. 476-502). New York: Basic Books.
- Zachariah, R.C. (1984). Intergenerational attachment and psychological well-being during pregnancy. Dissertation Abstracts International, 46, 1515B. (University Microfilms No. DA8509128)
- Zeanah, C.H. (1989). A structured interview to assess mother's representations of their infants. Paper presented at the WAIPAD 4th World Congress, Lugano, Switzerland, September 22, 1989.