

**IDENTITY STATUSES AND SOCIAL-COGNITIVE STYLES
IN WOMEN WITH EATING DISORDERS**

by

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Identity Statuses and Social-Cognitive Styles

In Women With Eating Disorders

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ABSTRACT

The present study examined ego identity statuses and social-cognitive styles in a sample of 20 women diagnosed as having anorexia nervosa or bulimia nervosa. The clinical group was compared to a control group of 24 women who did not manifest a clinical or subclinical eating disorder. Identity was assessed by utilizing the Identity Status Interview, based on Erikson's psychosocial theory of ego identity formation, and taking into consideration women's developmental process. Social-cognitive styles were measured by the Nascent Skeptical Doubt Interview, derived from a stage model of epistemological development. A developmental model was proposed and theoretical speculations upon the importance of sociocultural influences as extrapolated from the data were addressed.

Results indicated that women with eating disorders were more likely to be in lower identity statuses (Foreclosure and Diffusion) and less epistemologically advanced compared to the control group. Bulimics appear to be more developmentally advanced than restricting anorexics, being represented in the higher identity status (Moratorium) and advanced epistemic position (Post-skeptical Rationalism). Results obtained on the social-cognitive styles may have been confounded by level of education.

She looked for Famine
And found her, in a stony field, her nails
Digging the scanty grass, and her teeth gnawing
The tundra moss. Her hair hung down all matted,
Her face was ghastly pale, her eyes were hollow,
Lips without color, the throat rough and scaly,
The skin so tight the entrails could be seen,
The hip-bones bulging at the loins, the belly
Concave, only the place for a belly, really,
And the breasts seemed to dangle, held up, barely,
By a spine like a stick-figure's; and her thinness
Made all her joints seem large; the knees were swollen
Balloons, almost, the ankles lumpy tubers. . . .

. . . in his sleep he dreamed of food, his jaws
Closing on nothing, and he ground his teeth
On nothing, and his throat kept swallowing nothing,
His feast was empty air, and when he wakened,
He was ravenous. He called for all that sea
And land and air could furnish, and with tables
Heaped high before him, groans that he is starving,
Craves feast on feast. Enough to feed a city,
Enough to feed a nation, is not enough
For Erysichthon's hunger. The more he wolves,
the more he wants, insatiable as ocean,
Insatiable as fire. All the food in him
Is appetizer only; he is filled
With emptiness, and still consuming fire
Burns in his gullet, all his treasure is gone,
Is spent on foodstuff; . . .

Ovid
"Metamorphoses"

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CHAPTER I
INTRODUCTION

The sense of fullness and swelling, of curves and softness, the awareness of plenitude and abundance, which filled me with disgust and alarm, were actually the qualities of a woman's body. . . . [I] went to look at myself in the mirror. For the first time I was able to perceive the transparent film of expectation I placed over my image in the looking glass Until now, all I had been able to behold was my body's failure to conform to an ideal. Now, I had realized what I had called fat in myself, and considered gross, was this body of a woman. And it was beautiful. The thighs, too large for an adolescent boy, were appropriate to a woman's body. Hips rounding, belly curved, what had driven me to deny this evidence that I was a woman? . . . Who, I wondered had made up this ideal for women?

Kim Chernin (1981, p. 18)

The "cult of thinness" currently pervades our western, industrialized society. Through media representations and other pathways of communication, it has insidiously spread the message that to be thin is to be worthwhile and that women especially, may achieve success, beauty, love, and happiness if they have the ideal slim physique. Unfortunately, in their quest for the ideal, women with anorexia nervosa and bulimia nervosa have submitted their body, self, and identity as sacrificial offerings to this "cult of thinness".

Although women with eating disorders appear to be the most susceptible to the message that "thin is in", the

present condition of our society's eating patterns is that normal eating is now normal dieting (Polivy & Herman, 1987). Fitness and dieting is the route towards achieving the slim body, which is the societally sanctioned form of self-worth. Because of the current obsession with the thin body and the accompanying attitudes and eating behaviors, a question that is asked is, where does normal dieting end and an eating disorder begin?

More importantly, how did this state in our societies come about and what factors led to it?

Eating disorders are considered to be the pathological extreme along the continuum of eating patterns and are associated with common individual and familial characteristics (Bruch, 1978; Garfinkel & Garner, 1982). On the other hand, others would argue against viewing anorexia and bulimia as disorders of the individual but instead, as sociocultural phenomena (Szekely, 1989). From the sociocultural perspective, eating disorders are an extension of the body fixation and concomitant values presently condoned by the patriarchal society (Szekely, 1989; Boskind-White & White, 1987; Orbach, 1986). Our society's current emphasis on the "external trappings" such as status, material acquisitions, and physical appearance are primary values in society's "cult of thinness".

Although researchers are still looking for a singly determined etiology in anorexia nervosa and bulimia nervosa (e.g. Pope & Hudson, 1988), it is more likely that the ~~etiology~~ and maintenance of eating disorders is

Causes

multidimensional. That is, there is probably an interplay of factors at the levels of the individual (physiological and psychological), the family, and society. 4

The focus of the present study will be upon underlying individual factors probably associated with eating disorders, namely identity formation and epistemological development. However, an attempt will be made at integrating the conjectured individual variables with theoretical speculations regarding the family system and society. The organization of this work will be as follows: the literature review of relevant areas in eating disorders; adolescent identity formation and its possible relation (not causal) to the development of eating disorders; epistemological development and its probable association with eating disorders; the present study and the rationale for this investigation; the method; the results; and finally, the discussion.

CHAPTER II
EATING DISORDERS

Eating Disorders - Characteristics

Documented cases of anorexia nervosa have increased dramatically over the past forty years (Szmukler, 1985; Mitchell & Eckert, 1987) and bulimia nervosa has emerged in the last ten years as an "ominous variant" (Russell, 1979). Numerous research investigations (e.g. Halmi, Falk, & Schwartz, 1981; Garfinkel & Garner, 1983) and theoretical speculations (e.g. Bruch, 1973; Crisp, 1983; Chernin, 1985; Goodsitt, 1985) have been generated as a result of the fatality associated with these eating disorders. Unfortunately, adolescents and women vulnerable to these eating behaviors are still dying.

The psychological and behavioral characteristics associated with anorexia nervosa and bulimia nervosa are the "relentless pursuit of thinness" (Bruch, 1978, p. IX), fear of gaining weight, distorted body image, and preoccupation with food, weight, and body size (American Psychiatric Association, 1987; Garfinkel & Kaplan, 1986; Russell, 1979). The most telling characteristics distinguishing anorexia from bulimia include profound weight loss of at least 15% of body weight, amenorrhea, and denial.
→ loss of menstrual cycle 25%

A problem in assessing anorexia nervosa is the apparent

heterogeneity of this disorder. Research data (Laessle, Wittchen, Fichter & Pirke, 1989; Mickalide & Anderson, 1985; Garner, Garfinkel & O'Shaughnessy, 1985) supports the classification of anorexia nervosa into two subtypes: the restricting anorexic (RA) who engages in uninterrupted dietary restraint; and the bulimic anorexic (BA) who, unable to exert such control over eating behavior, yields to periodic episodes of binge-eating and purging through self-induced vomiting, laxative or diuretic abuse (Fairburn, Cooper, & Cooper, 1986).

Bulimia nervosa may also be divided into two groups: those with a prior history of anorexia nervosa but who are no longer anorexic (PAB) and those without a history of anorexia nervosa (NAB) (Laessle et al., 1989; Steiger, Van der Feen, Goldstein & Leichner, 1989). Persons with bulimia nervosa are caught in regular binge-purge cycles but they do not manifest such distinguishing characteristics of anorexia as an emaciated body. In addition, they tend to behave more impulsively, sometimes engaging in substance abuse, stealing, suicide attempts, and sexual promiscuity (Turnbull, Freeman, Barry & Anderson, 1989; Fairburn, Cooper & Cooper, 1985).

An important point to note however, is that although the distinction between restricting anorexia, bulimic anorexia, and bulimia nervosa have been supported and utilized in research, these subtypes are not unequivocally

defined. Consistent with other disorders is the concept of a continuum with various shades of grey. Therefore, although there are individuals who are classically one subtype, many fall into the fuzzy boundary area or may be diagnosed as atypically eating disordered. In addition, although DSM-III-R has classified anorexia nervosa and bulimia nervosa as discrete entities, some research supports the distinction that restricting anorexia is separate from bulimic anorexia and bulimia nervosa (Beaumont, 1988; Shapiro, 1988; Thompson, 1988; Garner, Olmsted & Garfinkel, 1985). Persons manifesting bulimic behaviors are more similar to each other than they are to restricting anorexics regardless of past and present weight. Again, the demarcation between subtypes primarily serves research purposes but is less clear clinically.

→ Much of the research has focused on establishing behavioral and some psychological characteristics of anorexia nervosa and bulimia (e.g. Johnson, Tobin & Enright, 1989; Garfinkel & Garner, 1982). Alternatively, theoretical conceptualizations have deliberated upon the less observable psychological explanations of underlying problems arising within the individual and the family (e.g. Beattie, 1988; Orbach, 1985; Sours, 1980; Minuchin, Bosman & Baker, 1978).

Through her astute observations, Bruch has contributed a wealth of understanding to the possible etiology and treatment of anorexia nervosa. She distinguishes sharply

between normal dieting and a clinical eating disorder. According to Bruch, characteristics of an individual with an eating disorder, primarily anorexia, are: lack of perceptual awareness, body image distortion, overwhelming sense of ineffectiveness, cognitive and moral rigidity, and disturbances in ego identity and autonomy (Bruch, 1973, 1978, 1985). Research generated from Bruch's clinical observations has focused chiefly on body image disturbances (e.g. Slade & Russell, 1973; Garner & Garfinkel, 1981). The proposed study will be investigating two other features which Bruch and others have considered, but which have not yet been firmly empirically established: ego identity formation and social-cognitive styles.

Eating Disorders - Identity

It has been suggested that identity disturbances may be involved in the etiology and maintenance of eating disorders (Garfinkel & Garner, 1983). That is, during adolescence, the developmental emergence of an autonomous identity apart from the family does not optimally occur. The young adult with an eating disorder then functions in the world without a solid and separate sense of a continuous self. The theoretical literature concerning identity focuses primarily upon anorexia, speculating less on bulimia, although research has included samples of bulimics.

The theoretical literature suggest that the adolescent anorexic is caught in the struggle for individuality but is unable to function independently from the family. Having already experienced the early childhood phase of separation-individuation, the adolescent anorexic embarks on a renewed struggle for a separate identity within the shaky context of an enmeshed family (Orbach, 1985; Minuchin, Rosman & Baker, 1978). Bruch notes the lack of "conviction of their own inner substance and value" (Bruch, 1978, p. 45) and their deficiency in identity, autonomy, and control. Captured and stifled in the web of enmeshment, the anorexic adolescent may not be able to distinguish herself from "we, the family"; thus, a distinct personal identity is absent. Metaphorically, mastery over their bodies becomes a substitute for the space inside which should have been occupied by their own, constructed identity.

Although theory and clinical observations have attended to the concept of identity disturbances in eating disorders, empirical research on this area is sparse and equivocal. Deficient identity development was not evident in a small sample of 29 anorexic patients in a study conducted by Swift, Camp, Bushnell, and Bargman (1984). Loevinger's Sentence Completion Task, a measure of general ego development, was employed and the authors interpreted the results as not supporting the hypothesis that anorexics have identity disturbances. This investigation, however, lacked a

control group. In addition, while the SCT has been utilized as a measure of intellectual capabilities and of social conformity (Strauss & Ryan, 1988; Haimes & Katz, 1988), there is no established validity for it as a measure of ego identity.

Alternatively, the Identity Structure Analysis distinguished a sample of 26 anorexics and bulimics from controls in that the eating disorder group displayed anti-developmental identity patterns (Weinreich, Doherty, & Harris, 1985). Unfortunately, the investigators failed to describe the research design and to report statistical results.

Becker, Bell, and Billington (1987) found greater object relations disturbances of autonomy and attachment in bulimic women than in non-bulimic women within a college setting. Consistent with the interpretation of bulimia as the enactment of conflicting wishes for merger and autonomy, bulimics were found to be fearful of abandonment and lacking in autonomy in the Bell Object Relations Inventory.

Autonomy disturbances were also found by Strauss and Ryan (1987) in a sample of 19 restricting and 14 bulimic anorexics. Compared to controls, both anorexic groups exhibited poorer self-other differentiation, pressure to conform to introjected perfectionistic strivings, and family patterns antithetical to autonomy. However, there were no differences between anorexics and controls on autonomy in

their relationships with significant others.

The need for further research in identity disturbances is called for and the present study investigated identity formation from a psychosocial perspective which will be detailed in a further section.

Eating Disorders - Cognitive Styles

Accompanying the process of identity formation during adolescence is cognitive development, where one progresses from the concrete thinking of the child to the abstract reasoning of late adolescence. According to Piaget's theory of cognitive development, a young person moves from the sensorimotor period (birth to 2 years), to preoperational (2 to 7 years), to concrete operational (7 to 11 years), and finally to formal operations (over 11 years) (Piaget, 1970).

Bruch proposes that the eating disordered adolescent's family environment is inadequate in propelling the child through these cognitive maturational stages. "Anorexics seem to be stuck in [the phase of concrete operations] . . . in the way they approach personal problems, . . . the capacity for formal operations with the ability for abstract thinking and independent evaluation is deficient in them, or even completely absent" (Bruch, 1978, p. 48). Cognitive distortions, especially dichotomous thinking patterns ("good" food, "bad" food) and irrational beliefs, appear to

characterize persons with eating disorders (Mizes, 1988; Powers, 1984); this black-or-white, all-or-nothing thinking is an example of concrete thinking (Fernandez, 1984).

Despite the clinical references to cognitive distortions involved in anorexia nervosa and bulimia nervosa, research studying cognitive variables have focused almost exclusively on establishing cognitive-behavioral therapy as a practical treatment technique (Garner & Bemis, 1985; Fairburn, 1985). Garner and his associates claim that their "experience" "has confirmed the significance of distorted thinking patterns in the maintenance of the anorexic syndrome" (Garner & Bemis, 1985, p. 107). However, only two empirical studies have investigated the cognitive styles of anorexics and bulimics.

In an investigation by Toner, Garfinkel, and Garner (1987), 21 bulimic anorexics displayed more cognitive impulsivity than 23 restricting anorexics and 24 controls, supporting the tendency bulimics exhibit towards impulsive behavior. The researchers found that on the Matching Familiar Figures Test, bulimic anorexics made more errors, thus indicating cognitive impulsivity.

The second study (Strauss & Ryan, 1988) involves additional analyses of the researchers' investigation on autonomy disturbances reported earlier. Their more recent article claims evidence of (cognitive dysfunction in eating disordered patients). The Cognitive Error Questionnaire found

that anorexics, particularly the restricting subtype, exhibited more cognitive errors than bulimic anorexics, normal-weight bulimics, subclinical eating disorders, and controls.

Further research is warranted in assessing the cognitive styles of women with anorexia and bulimia. This study proposes to investigate this variable from a social-cognitive developmental stage model, namely epistemological development. The rationale for this approach will be explicated in a subsequent section.)

CHAPTER III
IDENTITY FORMATION

Identity Statuses Approach: the Psychosocial Perspective

The eventual outcomes of Erik Erikson's fifth stage of ego development are Identity and Identity Diffusion (Erikson, 1959). The psychosocial crisis or central issue during late adolescence results optimally in: "The sense of ego identity, . . . the accrued confidence that one's ability to maintain inner sameness and continuity (one's ego in the psychological sense) is matched by the sameness and continuity of one's meaning for others" (Erikson, 1959, p. 94).

Operationally defining Erikson's concept of ego identity, Marcia developed the Identity Statuses approach (Marcia, 1966) as an attempt to study the developmental task of identity formation. The identity statuses framework classifies individuals into one of four groups based upon the twin process criteria of exploration of meaningful alternatives (crisis) and degree of commitment to some alternatives. The resulting four coping styles or identity statuses are: 1) **Identity Achievement**, in which a period of exploration of alternatives has been experienced and subsequent commitments made; 2) **Moratorium**, in which the crisis period is currently in progress and vague commitments

are held; 3) **Foreclosure**, in which there has been no exploration of alternatives yet there are firm, often parentally determined, commitments; and 4) **Identity Diffusion**, in which a period of crisis may or may not have been experienced and no commitments have been made. Each of these identity statuses represents a particular style of approaching and experiencing the world.

Twenty years of research have followed since Marcia operationalized Erikson's ego identity construct; these have firmly established the validity of the identity statuses approach (Waterman, 1982; Marcia, 1980; Bourne, 1978a, 1978b). Studies pertaining to the present undertaking will be outlined below.

High Authoritarianism scores as measured by the California F Scale have been consistently endorsed by males and females in the Foreclosure status (Marcia, 1966; Marcia & Friedman, 1970; Podd, 1972). Diffusions have a greater tendency towards conformity than the other statuses, while Achievements are fairly resistant to external pressure (Adams, Ryan, Hoffman, Dobson, & Nielson, 1984). The conformity issue of Foreclosure women has been rather controversial. Previously, Toder and Marcia (1973) found Foreclosures to be resistant to peer pressure but more recently, Adams et al. (1984) found them to be more conforming. It appears that prior to 1976, for women, the Foreclosure status resembled the Achievement in that it was

particularly adaptive for women to be in a committed position. Foreclosure women experienced less anxiety and higher self-esteem (Marcia & Friedman, 1970). Exploration was not encouraged or supported, resulting in the women Moratoriums appearing more similar to Diffusions by demonstrating poorer well-being and ego strength (Marcia, 1980). However, since 1976, the pattern has changed such that women Foreclosures resemble Diffusions and Moratoriums resemble Achievements, thus women's pattern now parallel men's pattern. It has been suggested that the Women's Movement may have been one factor in bringing about this change by generating social support for women's exploration process (Patterson, Sochting & Marcia, 1989).

In terms of autonomy, Orlofsky, Marcia, and Lesser (1973) found Foreclosures to be lowest in this variable, and Matteson's study (1974) also gave evidence that Foreclosures and Diffusions were low in autonomy. Overall, Foreclosures, with their unreconstructed internalization of parental values and commitments, appear to appeal to authority figures, preferring obedience and conformity instead of their own autonomous functioning outside of familial and societal rules and laws. Diffusions, lacking an inner structure and sense of directedness, are more easily swayed by external pressure.

Of relevance to the present study are the associations of identity statuses with cognitive styles and moral

development. Cognitively impulsive decision styles characterize Foreclosures and Diffusions (Slugoski, Marcia & Koopman, 1984). The relationship between identity statuses and levels of moral development (Kohlberg, 1976) have been well supported. Podd (1972) found Achievements evidencing more mature levels of moral reasoning, endorsing the postconventional stage of Kohlberg's developmental sequence, whereas Moratoriums were variable across the stages. Diffusions were characterized by preconventional and transitional moral reasoning, while Foreclosures were more likely to be rated conventional than postconventional. Podd claims that "conventional morality is representative of foreclosure-type process" (Podd, 1972, p. 504). Other studies have consistently supported the relationship between levels of moral reasoning and identity formation (Skoe, 1986; Rowe & Marcia, 1980).

With some relevant research evidence thus outlined, we have miniature profiles of each of the statuses:

Achievements, having actively explored alternative occupational choices and values outside of familial prescription and made firm, though not rigid commitments, should be the most internalized of the statuses due to fashioning their own identities. They will be the least likely to conform to external pressure. Achievements would be cognitively flexible and have high moral reasoning capacities due to the experiences of disequibration

(crisis) and accommodation (commitment) (Marcia, 1988a). They have explored the "world", reflected upon it, and come to their own decisions and commitments about it.

Moratoriums would be currently undergoing the exploration process, mentally or behaviorally battling over choices and important issues. Essentially, they are in the midst of forging their own identities. Together with the Achievements, they are high in dialectical (post-formal operational) thinking (Francis, Fraser & Marcia, 1989) and in moral thought (Leiper, 1981).

Foreclosures have a high level of commitment but have not experienced a crisis period. Although they have an internal structure, this rigid sense of self is not of their own making but instead is a stamp of their parents' construction. Marcia (1988a) suggests that families of the Foreclosed statuses set up conditions which preclude active exploration and differentiation, where questioning is discouraged. Passive acceptance of authority is condoned, and thus, identity is conferred upon the individual by the parents. Given this situation, Foreclosed statuses would be more cognitively rigid and morally conventional, acquiescing to those in position of authority or to society at large.

Diffusions, on the other hand, lack convictions and commitments. If one were to picture an internal structure for them, it would be rather shapeless. This status is expected to be easily influenced by others, externally

validated, and at lower stages of development of moral thought. However, an important distinction to note is that the diffusions may be differentiated into the "healthy" and "non-healthy" diffusions. The "healthy" may be "culturally adaptive" in a society which does not value commitments or they may be Developmental Diffusions, having the personality structure to progress eventually to Identity Achievement. The "non-healthy" are the more typical Diffusions who are the least developmentally advanced. They may be pathologically disturbed (borderline personality organization), schizoid and isolated, or carefree, directionless, and shallow (Marcia, 1988b).

Women and Identity

It has been suggested that women's developmental pathway towards identity formation is different from men's (Josselson, 1987; Kaplan & Klein, 1985; Surrey, 1984; Gilligan, 1982; Chodorow, 1978; Miller, 1976). Women's identity may be constructed through connectedness with others, not through successive separations, which is the proposed masculine pathway. For men, identity development may be the gradual movement from dependence to autonomy, and Marcia's concept of identity has been defined in terms of autonomy, individuality, and independence. Criticisms have been raised against generalizing men's developmental pattern

to women, protesting the lack of recognition of the relational aspect in women's developmental process (Josselson, 1987). Since the present study is comprised solely of female subjects, the application of the identity statuses approach must take into consideration the traditional masculine orientation of the identity construct, bearing in mind that "women's core self-structure emerges out of experience of a relational process" (Kaplan & Klein, 1985, p. 3).

The importance of the relational context for women's identity formation is evident in Josselson's (1987) interpretation of the identity statuses approach. Her work suggests the addition of the dimension of interpersonal connectedness to the criteria of exploration and commitment (Patterson, Sochting & Marcia, 1989). Rather than detaching from and leaving parents, "separation-individuation in adolescence requires a revision of relationships with parents, a revision that nevertheless preserves connection" (Josselson, 1987, p.19). Hence, identity is reconstructed and reworked in relation to others.

Josselson's descriptions of identity statuses in women with respect to the dimension of connectedness may be viewed as follows:

Achievements are the balancers of relationships, work, and interests, relationships being predominant in their lives. They are secure, confident and self-assured.

Achievements have integrated their needs for relatedness and self-assertion. As they have navigated their way through the process of identity formation, they have managed to combine "self-in-world" and "self-in-relation" (Josselson, 1987, p. 102).

Moratoriums are truly "daughters of crisis", being intensely self-reflective and in perpetual conflict. They struggle with their need to direct their own lives yet remain loyal to their parents. Moratoriums experience themselves mostly in relation to others ; those others serving as new identifications for the exploratory and developmental process.

Foreclosures are the "culture bearers", maintaining commitments which reflect their parents and society. They emphasize the closeness of their families, describing their parents in idealized terms and there is little distinction between the parents and the daughter. They have wholly internalized their parents' values and traditions, never questioning, never reworking their identity. Their main issues centre around the needs for security, safety, nurturance, and dependency (Josselson, 1982).

Diffusions are the least advanced in healthy psychological functioning. They have not engaged in directed exploration, are without commitments, and are isolated. Josselson describes four Diffusion subgroups. The first two include women with severe psychopathology and previous

developmental deficits. These women may be viewed as having borderline personality features. The third subgroup is comprised of Moratorium Diffusions who fluctuate between the Moratorium and Diffusion positions. Finally, the Foreclosed Diffusions appear to have foreclosed on their parents' diffusion. Overall, the Diffusions have not internalized aspects of their relationships and experiences. There is no firm ground in which to root their identity, thus their sense of self flounders, remaining "at the mercy of impulse and environmental forces" (Josselson, 1987, p.164).

The major developmental task of identity formation for women is an intricate one. The process involves the integration of the push to differentiate, creating one's own identity and the pull of attachments, maintaining connection and relationships with others.

Identity Statuses and Eating Disorders

In considering identity formation, the present study was based upon a proposed model for the progressive development of the self and ego identity. Theoretical foundations for this model are the object relations (Mahler, Pine & Bergman, 1975; Bowlby, 1969) and ego psychoanalytic (Erikson, 1959; Marcia, 1988a) approaches. The focal points of personality development within this model are early childhood and adolescence. This section will outline optimal

and non-optimal developmental processes and the potential relationship with the development of eating disorders.

It has been suggested that the identity crisis at adolescence is the re-emergence of the separation-individuation issue of early childhood (Marcia, 1988a; Josselson, 1987; Orbach, 1986; Steiner-Adair, 1986). Furthermore, the resolution of each developmental phase of separation-individuation and the quality of attachment to the caregiver may impact upon the development of an ego identity (Kroger, 1985). The sense of self resulting from separation-individuation is necessary as a firm base for the construction of the psychosocial identity (Marcia, 1988a; Josselson, 1987).

Normal development of the self proceeds from autism to symbiotic fusion to increasing differentiation and eventual individuation (Mahler, Pine & Bergman, 1975). During the first several weeks of life, the infant is in the autistic phase where the self-structure does not exist and the newborn cannot relate to external objects (Greenberg & Mitchell, 1983). In the next phase, the child is embedded within a symbiotic union with the caregiver. At four to five months, the child begins experiencing separateness from the symbiotic fusion, moving towards increasing differentiation. As the child gains locomotor capacities during the practicing subphase, the optimally responsive caregiver acts as an emotional refuelling base, tolerating and permitting

the child's exploration and frequent returns. The next phase yields the realization of the caregiver as a separate person. The rapprochement crisis at this time is characterized by ambivalence, where the child experiences intense neediness for the caregiver and an equally intense desire for separateness. If the rapprochement crisis is resolved adequately, the child will achieve a stable and enduring concept of the self and of others, allowing for healthy individuation, as well as laying the necessary foundations for identity development.

Intervening, psychologically and temporally, between the attachment-separation-individuation sequence of early childhood and the late adolescent sequence of exploration-commitment-identity is the individual's relationship with [the] family. The first separation is from one's mother; the second major separation is from one's family (and, their introjected representatives). The young child leaves the mother to explore the world; the late adolescent leaves the external and internal family to make [her] unique place in that world (Marcia, 1988a, p. 219).

It has been proposed that the quality of attachment to the caregiver impacts upon the development of the self and identity (Marcia, 1988a). In other words, the quality of the child's attachment to the caregiver may effect the resolution of the separation-individuation issue and the identity crisis. A secure attachment permits the early childhood development of a sense of self and stable, differentiated parental introjects, which in late adolescence, leads to the moratorium period of exploration

and eventually, an achieved identity.

In an empirical exploration of the attachment-separation-individuation issue underlying the identity statuses, Kroger (1985) found that high identity statuses (Achievement and Moratorium) showed secure attachment, especially Achievements. Foreclosures were more likely to demonstrate severe anxious attachment compared to the other statuses.

Non-optimal qualities of attachment are associated with the developmental process of separation-individuation where the resolution is not optimal and the caregiver cannot tolerate the child's attempts at separation or is emotionally unavailable. An anxious/insecure or ambivalent attachment leads to the Foreclosure status where the adolescent is embedded in the family matrix (substituted for the mother-child matrix), loyally staying with the "external and internal family". Detachment and the lack of a solid sense of self or stable introjects lead to difficulties in identity formation, resulting in identity diffusion. Diffusions are the most alienated from their parents, having perceived themselves as rejected by and distant from them (Marcia, 1980).

In summary, then, the proposed normal developmental process entails that the young child is securely attached to parental figures, has a stable sense of self and others, and has optimally resolved the separation-individuation issue.)

At adolescence, the reworking of previous psychosocial issues (Erikson, 1959) occurs simultaneously with physiological and cognitive changes, as well as increasing societal pressures. This "normal" adolescent has adequate internal structure to cope with the turmoil and upheaval of puberty. At late adolescence, the security and stability of the self and of parental introjects permit the relinquishment of such introjects, purposeful exploration of alternatives, and the construction of an identity. For females, the task involves increasing self-differentiation as well as the maintenance of relationships within the family.

Non-optimal development may take two separate paths. In the first pathway, the child proceeds with an anxious/insecure or ambivalent attachment in an embedded family and lacks self-differentiation. The turmoil of puberty results in this adolescent's retreat into the safe, familiar, yet embedded family nest, preventing the exploration of alternatives, and leading to the conferred status of identity Foreclosure. Separation from the family into the unexplored world is too frightening for the clinging, insecure adolescent.

The other pathway begins with detachment and an underdeveloped sense of self. This child is not provided with stable introjects and feels neglected and rejected by the family. The demands of puberty are overwhelming and

without any internal structure or external support, this adolescent's explorations are directionless and ineffectual. The identity crisis results in Diffusion.

The present study proposed that women with eating disorders took the latter two developmental pathways that lead to Foreclosure and Diffusion. This is not to infer that these developmental processes caused an eating disorder (not all Foreclosure and Diffusions have an eating disorder) or that an eating disorder gives rise to these pathways. Instead, there may be an association between non-optimal developmental progression and the development of an eating disorder.

Restricting anorexics (RA) are described as having failed to resolve the separation-individuation crisis and research indicates that they are anxiously attached, expressing feelings of insecurity, inadequacy, and helplessness (Armstrong & Roth, 1989). Bruch (1978) suggests that anorexic adolescents are enmeshed within an overprotective family system, and that they are conforming and non-autonomous. It was then expected that the restricting anorexic took the developmental path towards Foreclosure since they have been found to be anxiously attached and possibly embedded in the family. Their struggle during adolescence provoked the retreat into the sheltered, unquestioned and metaphorical symbiotic sac. It was safer to remain child-like in the powerful and secure arms of

conditionally-loving parents than to cause conflict in the attempts to differentiate.

Women with bulimia (BA, PAB, NAB) are described as having poor impulse control, engaging in substance abuse, stealing, and suicidal gestures (Johnson & Pure, 1986), and a subgroup may have developmental deficits resulting in character disorders such as borderline and narcissistic personalities (Yates, Sieleni, Reich & Brass, 1989; Johnson, Tobin & Enright, 1989; Cooper, Morrison, Bigman, Abramowitz, Blunden, Nassi & Krener, 1988). In addition, research indicates that bulimics perceive their families as detached, neglecting, and non-nurturant (Armstrong & Roth, 1989; Humphrey, 1988). Since Diffusions have a proposed detachment to parental figures and have perceived their families as rejecting and distant, offering little support as they developed, it was expected that women with bulimia would be represented in the Diffusion status. Another reason for this expectation stems from the suggestion that persons with developmental deficits and borderline pathology comprise a subgroup of Identity Diffusions (Marcia, 1988b). The challenges of puberty overwhelmed these adolescents and in late adolescence, their attempts to construct a whole identity have been confused and diffuse, similar to their attempts at dieting, which tend to be chaotic and sporadic (binge-purge cycles).

The development of an eating disorder typically begins

at puberty. Steiner-Adair (1986) states that females have been socialized to rely on external acceptance and feedback to form an identity, as well as to devalue their bodies.

On the one hand, adolescence presents girls with the challenge of coming to terms with their biological bodies; at the same time, society judges girls according to their looks and the culture encourages girls to struggle to change their body to fit a narrowly defined beauty ideal. . . . The processes of identity formation and body ownership seem to occur simultaneously for girls as a major catalyst for ego development (Steiner-Adair, 1986, p. 100).

Foreclosures and Diffusions tend to require external validation, making them particularly vulnerable to the demands and expectations of external authorities such as their parents or society. If physical appearance and public image is especially important in some families with Foreclosure or Diffusion daughters, these late adolescents may be more susceptible to developing an eating disorder. The Foreclosure would attempt to have rigid control over her food intake, leading to restricting anorexia, whereas the Diffusion would have a general lack of control, leading to the out-of-control eating behavior of bulimia.

CHAPTER IV
SOCIAL-COGNITIVE STYLES

An Epistemological Framework

Prior to his work on cognitive development and operational thinking, "Piaget (1929) began to sketch a psychological account of genetic epistemology - an account of the normal developmental course of the changing character of young people's thoughts about the nature and attainability of truth and meaning" (Boyes, 1987, p. 23). Concentrating his efforts upon the developmental progression towards formal operations, Piaget left unpainted his sketch of epistemological development which, in recent years, a number of researchers have restored (e.g. Chandler, 1987; Belenky, Clinchy, Goldberger & Tarule, 1986; Clinchy, Lief & Young, 1977). The focus of these investigations rests upon emergent doubt, the cognitive crisis of the adolescent advancement into abstract thinking.

The present study employed Chandler's theoretical framework of epistemological development, also considered to be a model of perspective-taking. Boyes (1987), under the direction of Chandler, developed a stage model of epistemic doubt which has been validated by examining the model's relationships with Piaget's cognitive developmental stages and with Marcia's identity statuses. However, Ball (1988),

under Chandler's supervision, revised the stage model, applying it in an investigation of nascent skeptical doubt among suicidal and non-suicidal adolescents. The current version of epistemological development was utilized in the present study.

According to Chandler, the dark side to the development of formal operational thinking is the emergence of generic doubt and uncertainty (Chandler, 1987). Moving from the concrete thinking of the child to the abstract, reflexive reasoning developed in formal operations, the adolescent's fundamental basis for knowledge can be shattered by the onslaught of skeptical doubt. The adolescent undergoes the realization that knowledge is person-relative and that the same situation can be perceived differently by people due to their own biases and experiences. At the earliest level during concrete operations, the child displays **Naive Realism**. Knowledge is case-specific and facts are real, presenting the same face to everyone. Differing viewpoints are due to misinformation or different facts. Generic doubt and the possibility of opinions does not exist. However, as the child progresses towards formal operations, the emergence of epistemic doubt begins. It is at this point that Chandler, Boyes, and Ball differentiate Piaget's formal operational stage into three levels or three response styles to skeptical doubt.

Within this epistemological stage model, two process

variables are necessary to distinguish the levels of epistemic development. These two criteria are the way in which individuals **construct** the problem of uncertainty and the **resolution** to this dilemma. The three sequential levels are as follows:

Defended Realism is the first response to generic doubt. This position is characterized by the perception of different opinions as the result of self-interest motives. The search for truth is obscured by the "veiled interests which operate on cultural, social, generational, and individual levels" (Ball, 1988, p. 23). The resolution is found in obtaining an objective, disinterested third party to judge the situation.

Dogmatism-Skepticism Axis is anchored by two antithetical opposites, "blind dogmatic faith or a know-nothing skepticism" (Chandler, 1987, p. 142). Individuals at this level are searching for absolute truth, requiring certainty in making commitments. However, the subjective nature of all knowledge is fervently realized and the resolution takes two polar directions. The dogmatic lays the solution at the feet of some omniscient source of authority, appealing to religious dogma or to the rigors of science. In this position, all-or-nothing, black-or-white, dichotomous thinking is present. Alternatively, the skeptic abandons reason and adopts non-rational, non-cognitive strategies such as impulsivism (acting without thought), intuitionism

(do whatever you feel), conformism (do what everyone else does), or indifferentism/leaving to chance (flip a coin). Although the dogmatic and skeptic have different resolutions, both operate on the principle that absolute certainty is required in knowledge claims.

Post-skeptical Rationalism involves the acknowledgement of subjective opinion as well as the relinquishment of the search for ultimate truth. Persons in this epistemic level attempt to make informed decisions and are able to defend their positions in choosing particular beliefs and courses of action. The cognitive flexibility apparent at this stage has obvious advantages, one being "the freedom to envision a variety of defensible alternative life courses, none of which need to be held out as being ultimately correct" (Ball, 1988, p. 24).

Social-Cognitive Styles and Eating Disorders

Chandler's epistemological development model was chosen to explore the social-cognitive styles of women with eating disorders for a number of reasons. First, this framework is an intrinsically interesting approach. Second, because the task requires social-cognition or perspective-taking, it may demonstrate how women with and without eating disorders approach their social-cognitive decision-making and resolve the dilemmas inherent in life.

In addition to information potentially offered in utilizing this approach, this model also has demonstrable relationships with Piaget's concept of formal operations and with Marcia's identity statuses (Boyes, 1987). With respect to formal operations, all of Boyes' grades 8 to 12 students who evidenced formal operational thinking scored at epistemic levels above Naive Realism (Boyes' label was Realism), the postulated concrete operational stage. Employing a questionnaire version of the Identity Status Interview, the Objective Measure of Ego-Identity Status, Boyes found Achievements were represented in all of the formal operational epistemic levels; Moratoriums were in the Skeptical position; Foreclosures were represented in the Naive Realism position, as well as "Dogmatism" under Boyes version (probably would have been Defended Realists in Ball's revision); and Diffusions were represented in the pre-rational positions. These results may have some bearing on the present study, however, data were obtained on a younger sample (approximately 13 to 17 years old) who are not yet expected to have constructed an identity.

A final reason for utilizing the epistemological framework involves the developmental model proposed in the previous chapter. This model can be further expanded and enriched by including the potential influence of epistemological development on identity formation and the associated relationship to the development of eating

disorders.

Some of the changes occurring during puberty are cognitive changes. As formal operational thinking emerges, the adolescent also experiences a growing sense of loss of certainty (Chandler, 1987). This cognitive crisis arises in response to the development of skeptical doubt. Generic doubt undermines and disconfirms the current identity, creating the anxiety-provoking feeling that nothing is permanent or absolutely true. Beliefs and values offered by parents and developed during childhood may no longer be viewed as truth, and are subsequently questioned and potentially rejected.)

If adolescents experience doubt, the stage is set for the exploration of various roles and alternative values outside of familial prescription. It is then expected that skeptical doubt generates exploration, however, the exploratory process may be purposeful (Moratorium) or directionless (Diffusion). If doubt is steered into meaningful exploration leading to rational alternatives and subsequent commitments, identity may eventually be constructed. (However, if skeptical doubt prevails and meaning and solutions are not found, identity diffusion may persist at late adolescence. If "doubting is dangerous" (Marcia, 1986b, p. 8), the adolescent defends against disconfirming and disequilibrating knowledge and experiences, remaining firmly committed and foreclosed on

her childhood identity. Doubt may be experienced by the late adolescent Foreclosure, however, the perceived wisdom of authorities and truth-bearing others may be sought as solutions to allay the anxiety generated by doubt.)

(With respect to eating disorders, skeptical doubt may leave some adolescents susceptible to the dictates of society regarding values and physical appearance. Because doubt undermines the sense of self as well as the belief in absolute truth, certain adolescents may tend to rely on external confirmation and guidance (or more appropriately, misguidance). Dogmatists and Skeptics would be the most vulnerable because they still hope for absolute certainty despite doubting. Society offers them a "norm"; a way of being and looking which the media encourages and "all" other teenagers conform to, therefore, the norm for them must be truth.

As mentioned in the previous chapter, the present study proposed that restricting anorexics followed the developmental path towards Foreclosure whereas bulimics took the route towards Diffusion. This investigation also suggested that dogmatic epistemological thinking is characteristic of a foreclosed identity and that prolonged skepticism underlies Diffusion. Hence, hypotheses centre around the Dogmatism-Skepticism Axis where the reliance on external solutions may be the greatest. The proposed over-representation of women with eating disorders in these

positions may also be due to their dichotomous thinking patterns (dogmatic), strongest in restricting anorexics, and impulsive behavior, associated with bulimia. Because of their apparent difficulties in weighing meaningful alternatives in resolving life's problems, it was expected that the clinical group would be under-represented at the Post-skeptical Rationalism position.

CHAPTER V

THE PRESENT STUDY

The rationale for investigating both identity statuses and social-cognitive styles in this exploration of women with eating disorders rests upon the integration of these theories, tied together with the role of parenting. Differing parenting styles may promote or discourage both cognitive exploration and development, and the formation of a self-constructed identity. Sigel (1984) proposes that there are differing parental rearing styles which are based upon his concept of **distancing**. Distancing refers to a progressive cognitive interiorization of reality. As the child develops, he/she becomes less dependent upon concrete, external representations of the world and increasingly acquires the capacity to rely on symbolic, internal representations. Distancing separates the child from psychological reliance upon the immediate present and the concrete, also enabling the child to take alternative perspectives. Hence, the process of distancing allows for "both an increasing independence from the external world, as well as more efficient functioning within the external world" (Marcia, 1988a).

Sigel speculates that two parenting styles influence the development of distancing abilities, which subsequently encourage or discourage cognitive exploration. One parental

strategy involves question-asking and question-sanctioning, where children are encouraged to question their world and doubt external appearances. The other style discourages question-asking, and instead, question-answering submerges active exploration because the parents give factual answers to children's questions. Doubt and exploration are not facilitated.

Marcia (1988a; 1986b) proposes that identity statuses are "linked directly to styles of decision-making formed earlier in childhood" (1986b, p. 11). Sigel's parenting style which encourages doubt and exploration may enhance a decision-making pattern that would promote the moratorium period and eventual Identity Achievement in late adolescence. Foreclosures may result from the question-answering style, where children rigidly adhere to parental facts handed down in an authoritarian fashion. Diffusions, however, may have experienced a parenting style which promoted question-asking or question-sanctioning but guidance through the period of doubt and exploration was lacking.

Theoretical links regarding identity formation, epistemological development, and parenting styles can now be integrated into the proposed model for normal and non-optimal development. In particular, the development of eating disorders may be associated with the latter.

Achievement and Moratorium, Post-skeptical Rationalism

and Skepticism, and Question-Asking: Normal development first entails the secure attachment of the infant to the caregiver. During early childhood, the parenting figure is optimally responsive to the child's needs and emotionally available. Successfully resolving the rapprochement crisis, the individuated child will have developed an enduring sense of self, and differentiated introjects.

During childhood and adolescence, parents promote distancing abilities (progressive cognitive interiorization) by facilitating question-asking. Skeptical doubt is acceptable and the parents provide support and encouragement for the exploration of alternatives and in rational decision-making. Subsequently, the adolescent is likely to construct an achieved identity.

Foreclosure, Dogmatism, and Question-Answering: Another developmental pathway begins with an anxious/insecure or ambivalent attachment to a caregiver who was not optimally responsive. Through the interactions with the caregiver, the infant develops a mistrust of the parent, insecure in the knowledge that needs would be sufficiently met and that the caregiver would be consistently available. Separation-individuation is not successfully resolved.

As the child develops, the dynamics of the family system would be an embedded, non-conflictual one, where parents are conditionally-loving and authoritarian. The parenting style of question-answering impedes cognitive

development and interiorization, hence not advancing the capacity for distancing. At adolescence, emergent doubt is unacceptable, threatening the family's status quo and the adolescent's internal introjects. The adolescent lacks self-differentiation within the family and is unable to explore or even construe alternative ways of thinking or being. Because decision-making is not practiced and thinking for oneself is not promoted, the adolescent would rely dogmatically on others of authority to determine decisions, values, and expectations. As well, the prevention of progressive cognitive interiorization creates additional reliance on concrete reality and external appearances. Cognitive rigidity and simplicity is expected, as well as conventional morality (the "culture bearers"). The identity held during childhood is not questioned, and disequilibration and doubt has little or no impact, hence identity at late adolescence is Foreclosed.

Diffusion, Skepticism, and Question-Sanctioning Without Guidance: The final developmental route involves detachment from the caregiver during early childhood. The caregiver may have difficulties attending to the infant's needs, and at worst, neglected or even rejected the infant. The child then develops an extreme mistrust of others and of him/herself. Separation-individuation is inadequately resolved and the self lacks solidity.

The family environment which the child grows up in is

non-nurturing, non-supportive and neglecting. Although skeptical doubt and questioning is acceptable, the family does not provide structure or guidance for the adolescent's exploration. Decision-making is ineffectual and rational solutions are not found for the skeptic. The process of exploration is meaningless, directionless, and non-committal. Symbolic, internal representations of reality are poorly developed, hence the adolescent's dependence upon the concrete, external world and less effective functioning in reality. By late adolescence, the teenager is experiencing identity diffusion, floundering in the wake of external pressures and expectations.

Even though the present study does not have the longitudinal component necessary to investigate the parenting styles of anorexic and bulimic families, Sigel's theory offers an underlying rationale for the contemporaneous examination of identity formation (statuses) and epistemological development (social-cognitive styles) in women with eating disorders.

It has been proposed and inconsistently supported that anorexic families are enmeshed and overprotective (Armstrong & Roth, 1989; Palmer, Oppenheimer & Marshall, 1988; Strober & Humphrey, 1987), as well as authoritarian and controlling (Engel & Steiner, 1988). Considering the proposed developmental model and the features associated with the statuses and epistemic positions, restricting anorexics were

expected to be represented in the Foreclosure status and the epistemic position of Dogmatism.

With respect to bulimia, research supports the speculations that bulimic families are more detached, chaotic, hostile, conflictual, neglecting, and non-nurturing than anorexic and normal families (Armstrong & Roth, 1989; Humphrey, 1988). A recent study on identity statuses and parenting styles (McGee, 1989), found Diffusions perceiving their parents as rejecting-neglecting, a parenting style which is consistent with the bulimic family profile. With respect to the proposed developmental model, women with bulimic symptomology were expected to be represented in the Diffusion status and the Skepticism position.

(If women with eating disorders followed the developmental route towards foreclosed and diffuse identities, and cognitive interiorization was less developed, (they will be heavily reliant on the concrete and external. Turning to the body to provide solutions to problems is a highly concrete resolution. It is suggested that they are operating upon an assumption that if the external, physical appearance conforms to parental and societal expectation, then the turmoil of adolescence will be solved and life's frustrations and disappointments will disappear. When the body fits the prescribed image, self-esteem will increase, popularity will be gained, and the need to belong satisfied.)

Hypotheses

Identity Statuses

1. Women with eating disorders will be over-represented in the Foreclosure and Diffusion statuses and under-represented in the Moratorium and Achievement statuses compared to the control group.
2. Restricting anorexics will be over-represented in the Foreclosure status compared to the bulimic subgroups (BA, PAB, NAB), who are expected to be over-represented in the Diffusion status.

Social-Cognitive Styles

1. Women with eating disorders will be over-represented in the Dogmatism-Skepticism Axis and under-represented in the Post-skeptical Rationalism position compared to the control group.
2. Restricting anorexics will be over-represented in the Dogmatism pole of the Dogmatism-Skepticism Axis.
3. Bulimic subgroups will be over-represented in the Skepticism pole of the Dogmatism-Skepticism Axis.

Identity Statuses and Social-Cognitive Styles

1. Achievements will be represented in the Post-skeptical Rationalism position.
2. Moratoriums will be represented in the Skepticism and Post-skeptical Rationalism positions.
3. Foreclosures will be represented in the Dogmatism position.
4. Diffusions will be represented in the Skepticism position.

CHAPTER VI

METHOD

Subjects

Clinical

Included in the study were 20 consenting female inpatients and outpatients from the Eating Disorders Service in the University Hospital at the University of British Columbia. Their ages ranged from 17 to 26 (mean age = 21.6). This clinical population met the DSM-III-R (American Psychiatric Association, 1987) criteria for either anorexia nervosa (n=14) or bulimia nervosa (n=6). For descriptive purposes, they were further divided into four clinical subgroups: 1) Restricting Anorexia (RA) - anorexics who maintain dietary restraint (n = 12); 2) Bulimic Anorexia (BA) - anorexics who yield to persistent binge-eating and/or purging behavior (n = 2); 3) Previously Anorexic Bulimia (PAB) - bulimics with a history of anorexia (n = 3); and 4) Never Anorexic Bulimia (NAB) - bulimics who do not have a history of anorexia nervosa (n = 3). However, because research indicates that the bulimic subgroups are more similar compared to the restricting anorexics, (Laessle, Wittchen, Fichter & Pirke, 1989; Garner, Garfinkel & O'Shaughnessy, 1985; Mickalide & Anderson, 1985) the three subgroups have been collapsed into an overall bulimia group.

Thus, there were 12 Restricting Anorexics and 8 Bulimics. Diagnosis was based on a psychiatric interview, the Eating Disorders Inventory, and a self-report inventory assessing bulimic behavior.

Control

Control subjects ranged from 18 to 23 years of age (mean age = 19.58). Originally, 28 female volunteers recruited from undergraduate classes at Simon Fraser University comprised the control group. Four women with a clinical or a subclinical eating disorder as assessed by the Eating Disorders Inventory and their admission of an eating disorder were excluded from the data analysis. Hence, there were 24 subjects in this "clean" control group.

Measures

Identity Status Interview (ISI) (see Appendix A). This is a semi-structured interview developed by Marcia (1966) in order to classify late adolescents into four identity statuses. The 30 - 60 minute interview is divided into three main areas: occupation, ideology (religion and politics), and sexual-interpersonal values (sex role attitudes and personal standards of sexual behavior). The evaluation of the presence or absence of exploration and commitment in these topic areas result in the classification of the four

statuses: Achievement, Moratorium, Foreclosure, and Diffusion. The training of three interviewers (all female) and one rater were accomplished through the use of the ISI manual and feedback from Marcia.

Nascent Skeptical Doubt Interview (NSDI) (see Appendix B). This measure was developed by Chandler, Boyes, Ball, and Hala (1985). The NSDI is in the form of two story dilemmas accompanied by competing knowledge claims. Standard probes follow each story; the first story concerns "driving age" and the second, "native lifestyles". Finally, there are general probes towards the end of the 20 minute semi-structured interview. The main objectives of the probes are to assess: 1) subjects' construction of competing knowledge claims - what causes the disagreement between both groups; and 2) subjects' resolution - strategies for dealing with the dilemmas. The three interviewers and one rater were trained by the NSDI manual. Scores on the NSDI resulted in epistemic stage designations for each subject. These were determined with the aid of the NSDI manual and consultation with Chandler.

Wechsler Adult Intelligence Scale - Revised (WAIS-R) (Wechsler, 1981) subscales, "Vocabulary" and "Similarities". These are two single measures of intelligence (Lezak, 1983). "Vocabulary" is the single best measure of verbal and general intellectual ability. "Similarities" reflects abstract verbal reasoning and is fairly independent of

social or educational background. The WAIS-R subtests were employed to check general intelligence levels with respect to the social-cognitive measure, the NSDI. The decision to use "Vocabulary" and "Similarities" instead of the full WAIS-R was due to time constraints and the irrelevance to the study of a full IQ score and clinical profile.

Eating Disorders Inventory (Garner, Olmsted & Polivy, 1983). This self-report questionnaire is comprised of 64 items. Underlying the structure of the EDI are eight clinically and theoretically derived subscales: drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears. For each subscale, the EDI has reliability coefficients ranging from .82 - .90 for an anorexic sample and .65 - .91 for a control sample. Good criterion-related and construct validity were also obtained. Accepted as a reliable and valid instrument, this assessment tool was chosen as an objective measure to supplement psychiatric diagnosis and to screen out potential eating disorder subjects from the control group.

Demographics Data Form. This measure was constructed for the current study and contains questions concerning bingeing and purging behavior (vomiting, laxative and diuretic abuse) and the frequency of such behavior. This questionnaire also included questions regarding highest level of education obtained and whether or not the subject

perceived herself as having an eating disorder.

Procedure

(The clinical population and control group were given a consent form which described the nature of the study as an investigation of people's attitudes and beliefs, how they come to form them, and what factors may have influenced them.)

(Subjects understood that there were two audio-taped interviews as well as self-report questionnaires.) They were also informed of their right to withdraw at anytime. All information was anonymous and confidential.

The interviews and questionnaires took approximately two hours to complete. The order of the measures were: Identity Status Interview, Nascent Skeptical Doubt Interview, Vocabulary and Similarities subscales, Eating Disorders Inventory, and the Demographic Data Form.) The forms related to eating behaviors were administered at the end of the session for fear of triggering eating preoccupations in the clinical group.

In order to avoid possible bias,) one interviewer conducted the ISI while the other interviewer subsequently gave the NSDI to the same subject. However, this was possible to negotiate only with the control group and 9 of the 20 clinical subjects. Both interviews were administered to the 11 women by the primary investigator. Contamination

effects in the ISI and NSDI scores were assessed by comparing the independent interviewers' versus non-independent interviewer's ratings of identity status and epistemic positions. Descriptive analyses of the interviews compared percentages obtained for each identity status and each epistemic position between the independent and non-independent interviews. For example, 27 % of all non-independently interviewed subjects were classified as Foreclosure compared to 33 % of all independently interviewed subjects categorized as Foreclosure. Contamination effects were not evident (see Appendix C).

All interviewers were blind to the subclassification diagnosis of subjects into RA, BA, PAB, and NAB. Although the primary investigator was not blind to the hypotheses, the other two interviewers and two raters were. Each interviewer audio-taped and scored her own interview. In order to control for possible biases, second ratings by a rater who was not the interviewer were independently obtained for each interview. With discrepant ratings, a final rating was reached through mutual reanalysis of the interview, although this was still considered a disagreement for calculating reliability. The weighted-average inter-rater reliability for the ISI was 93% (Kappa = .89) and for the NSDI, 85% (Kappa = .76).

CHAPTER VII

RESULTS

Sample Characteristics

The clinical sample was comprised of 20 women diagnosed as having anorexia nervosa or bulimia nervosa. They ranged from 17 to 26 years of age (mean = 21.6; s.d. = 2.74). The control group was made up of 24 women who did not evidence a subclinical or clinical eating disorder. Their ages ranged from 18 to 23 years (mean = 19.58; s.d. = 1.64).

The question arose as to whether or not educational years and/or general intellectual ability would affect subjects' position on the measure of social-cognitive style (NSDI). The mean educational level for the clinical group was 12.75 years (s.d. = 2.05) and for the control group, 13.75 years (s.d. = 0.79). A significant difference was found for educational years; $t(42 \text{ df}) = 5.0; p < .001$. Their mean group scaled scores on the intelligence measures were as follows. For the clinical group, "Vocabulary" was 12.35 and "Similarities" was 13.15. The control group means were 13.08 for "Vocabulary" and 12.96 for "Similarities". T-tests conducted on the group means resulted in non-significant differences between the groups; "Vocabulary" $t(42 \text{ df}) = .99, p > .10$; and "Similarities" $t(42 \text{ df}) = .48, p > .10$.

With respect to socioeconomic class, the families of origin of the women in the eating disorder group were from the working, middle, and upper classes. This distribution is consistent with the recent shift from a predominantly upper class phenomenon to a fairly equal distribution among the classes (Garfinkel & Garner, 1982; Mitchell & Eckert, 1987). The class distribution within the control group appeared similar to the clinical population, both groups originating primarily from the middle class.

Statistical Analyses

Identity Statuses

The Identity Statuses and clinical and control groups generated an eight-cell contingency table (see Table 1). In order to conduct a Chi-square analysis, the four identity statuses were reduced to three statuses by collapsing together the Achievement and Moratorium statuses, which are developmentally similar. This was due to the lack of Achievements in the clinical population. Hence, status differentiation was expected between the Achievement-Moratorium (high identity) and the Foreclosure and Diffusion statuses.

Group membership by Identity Status revealed a significant difference in the frequency of the distribution of the eating disorder group and the control group across

Table 1

Chi-square Analysis of Identity Statuses by Group Membership

<u>ISI</u>	<u>Group</u>		
	Clinical	Control	Total
Achievement	0	4	4
Moratorium	3	7	10
Foreclosure	6	10	16
Diffusion	11	3	14
Total	20	24	44

* Chi-square analysis with Achievement and Moratorium combined = 9.86, df = 2; p < .01 (significant)

identity statuses. Results were consistent with the hypothesis that women with eating disorders would be over-represented in the Foreclosure and Diffusion statuses and under-represented in the Achievement-Moratorium statuses compared to the control group; $X^2 = 9.21$, (df = 2); $p < .01$. Because of low cell frequencies, Fisher's Exact Probability Test was conducted to test the hypotheses that restricting anorexics would be over-represented in the Foreclosure status and that the bulimic subgroups would be over-represented in the Diffusion status (see Table 2a). Significant findings were not obtained. An additional analysis was conducted by dividing the restricting anorexic and bulimic subgroups into high identity (Achievement & Moratorium) and low identity (Foreclosure & Diffusion) groups. A marginally significant result was found ($p = .098$) (see Table 2b), indicating that bulimics tended to be more represented in the higher identity status and restricting anorexics in the lower.

Social-Cognitive Styles

Statistical analyses were conducted on data from 19 of the 20 clinical group because one interview failed to record. Chi-square analysis on a six-cell contingency table generated by the social-cognitive styles and the two groups yielded non-significant results (see Table 3a). However, when the Defended Realism and Dogmatism-Skepticism positions

Table 2a

Fisher's Exact Probability Analysis of Foreclosure and Diffusion Statuses by Eating Disorder Subgroups

<u>Identity Statuses</u>	<u>Subgroups</u>		
	Restricting Anorexia	Bulimia	Total
Foreclosure	4	2	6
Diffusion	7	4	11
Total	11	6	17

* Fisher's Exact Probability Test > .10

Table 2b

Fisher's Exact Probability Analysis of High and Low Identity Statuses by Eating Disorder Subgroups

<u>Identity Statuses</u>	<u>Subgroups</u>		
	Restricting Anorexia	Bulimia	Total
High identity (Achievement- Moratorium)	1	2	3
Low Identity (Foreclosure- Diffusion)	11	6	17
Total	12	8	20

* Fisher's Exact Probability = .098 (marginal significance)

were collapsed together into a "pre-rationalism" group, creating a four-cell contingency table, the data approached significance; $\chi^2 = 2.79$, (df = 1); $p < .10$. This finding indicated a tendency for the clinical population to be represented in the Defended Realism and Dogmatism-Skepticism positions and the control group in the Post-skeptical Rationalism position.

Chi-square analysis was not conducted on the eating disorder subgroups and associated epistemic positions because the low cell frequencies violated statistical assumptions (see Table 3b). The specific hypothesis that restricting anorexics would be Dogmatists and the bulimics would be Skeptics was not supported since only one subject (restricting anorexic) occupied the Dogmatism position. Additional analysis using Fisher's Exact Probability Test of the subgroups by the collapsed Defended Realism/Dogmatism-Skepticism ("pre-rationalism") and the Post-skeptical Rationalism positions also resulted in non-significance. The clinical population was not over-represented in the pre-rationalism positions and under-represented in the Post-skeptical Rationalism stance compared to the control group.

Identity Statuses and Social-Cognitive Styles

Although low cell frequencies violated statistical assumptions, chi-square analysis was conducted on all

Table 3a

Chi-square Analysis of Social-Cognitive Styles by Group Membership

<u>NSDI</u>	<u>Group</u>		Total
	Clinical	Control	
Defended Realism	5	5	10
Dogmatism-Skepticism	7	4	11
Post-skeptical Rationalism	7	15	22
Total	19	24	43

* Chi-square = 3.18, df = 2; p > .10

* Chi-square with Defended Realism and Dogmatism-Skepticism combined = 2.79, df = 1; p < .10 (marginal significance)

Table 3b

Fisher's Exact Probability Analysis of Social-Cognitive Styles by Eating Disorders Subgroups

<u>NSDI</u>	<u>Subgroup</u>		Total
	Restricting Anorexia	Bulimia	
Defended Realism	5	0	5
Dogmatism-Skepticism	4	3	7
Post-skeptical Rationalism	2	5	7
Total	11	8	19

* Fisher's Exact Probability Test with Defended Realism and Dogmatism-Skepticism combined; p > .10

subjects in an attempt to find a possible relationship between identity statuses and social-cognitive styles. Analysis revealed non-significant results (see Table 4). The data did not support the hypotheses that Achievements were Post-skeptical Rationalists, Moratoriums were Post-skeptical Rationalists and Skeptics, Foreclosures were Dogmatists, and Diffusions were Skeptics; $\chi^2 = 1.85$, (df = 4); $p > .10$.

Table 4

Chi-square Analysis of Identity Statuses by Social-Cognitive Styles on Clinical and Control Groups Combined

<u>ISI</u>	<u>NSDI</u>			Total
	Defended Realism	Dogmatism- Skepticism	Rationalism	
Achievement	1	1	2	4
Moratorium	3	1	6	10
Foreclosure	4	5	7	16
Diffusion	2	4	7	13
Total	10	11	22	43

* Chi-square analysis conducted on Achievement and Moratorium combined; $X^2 = 1.85$, $df = 4$; $p > .10$

CHAPTER VIII

DISCUSSION

Identity Statuses

Interpretations and generalizations of the results obtained from the present study must be qualified by the smallness of the sample size. However, the data appear consistent with other studies which have found identity disturbances in women with eating disorders (Weinreich, Doherty & Harris, 1985; Strauss & Ryan, 1987; Becker, Bell & Billington, 1987).

The results support the first hypothesis that women with eating disorders, as compared to the control group, would be more likely to manifest Foreclosure and Diffusion statuses than Achievement and Moratorium statuses. As well, the mean age of the clinical group was older than the control group, suggesting that, despite more time and possible experiences to form an identity, they have not yet achieved self-constructed identities, whereas the younger controls have. None of the clinical population demonstrated Identity Achievement, although three women were in the midst of moratorium. Having not yet constructed their identity or made self-directed choices in life regarding their occupation, and ideological and interpersonal values, seems consistent with the postulated maturity fears of women with

eating disorders (Crisp, 1983).

The finding that women with various subtypes of eating disorders were not characterized by particular statuses was contrary to the second hypothesis. Women with restricting anorexia were not over-represented in the Foreclosure status and women with bulimia were not more likely to be in the Diffusion status. Instead, restricting anorexics and bulimics were almost equally likely to be Foreclosures. When restricting anorexics and bulimics were divided into High (Achievement and Moratorium) and Low (Foreclosure and Diffusion) identity, results approached significance. This finding suggested that restricting anorexics were more likely to be characterized by low identity statuses. Bulimics, however, appeared to be slightly more advanced in identity development. It is possible that a larger sample size, currently being acquired, may result in more statistical power to detect significant differences among identity statuses. On the other hand, the hypothesis may be inaccurate: the tendency for restricting anorexics to be well represented in the Diffusion status was inconsistent with expectations.

The failure to find strong support for the second hypothesis is interesting, especially when enriched by clinical information. One explanation for the findings is the potential confound of treatment on the identity statuses. All clinical subjects were in treatment so that

therapy outcome may have influenced identity development by breaking up a Foreclosure pattern among restricting anorexics and propelling them into an eventual Moratorium position via a temporary regression into Diffusion. That is, effective therapy might have put many of the previously foreclosed women into an exploratory process.

An example supporting the above conjecture is provided by one woman with restricting anorexia who appeared to have moved out of Foreclosure into the Diffusion status due to treatment as an inpatient. It was as if the stability once offered by her internalized parental values had been shattered by the challenge of therapy. She had stated that since her eating disorder became acute and she entered the hospital, she no longer held her previous beliefs; however, questioning her values only led to confusion. She seemed to lack the adequate internal structures necessary to guide her through a directed moratorium, thus leaving her stranded in diffusion. Marcia (1986a) has discussed the risk posed for Foreclosures engaged in therapy, where attacking and ousting parental introjects may leave no internal guide, resulting in psychological confusion or depression. To substantiate the possibility that some of the Diffusion women with restricting anorexia could have been Foreclosures prior to treatment, identity status interviews should be conducted either prior to therapeutic contact or at the initial stages of intake and assessment.

The finding that three women in the clinical group were in the Moratorium status was also unexpected. Either therapy or life experiences had propelled them into the healthy exploration period. It is also possible that their eating disorder may not have been severe and hence, they were less intractable to treat. Two were moving out of the Foreclosure position and the other woman continued to flounder somewhat in slight diffusion. Of those recently foreclosed, one woman had restricting anorexia. The previously foreclosed status was determined by the secondary scoring of Foreclosure on three domains and one primary Foreclosure scoring. It appears that this woman had enough of a core internal structure to give her sufficiently firm footing through a directed exploration of her identity, unlike the restricting anorexic mentioned above.

The other Moratoriums were women with bulimia nervosa who were previously anorexic. Of the two 24 year olds, one was also moving out of Foreclosure into Moratorium. She had strongly identified with her mother, however parental separation and her perception of her mother's "fall from grace", caused this woman to re-evaluate. She was "really suffering for once in [her] life" and over the past few years, had been questioning and "opening [her] vision".

Another unexpected finding was the Foreclosure status of two women with bulimia nervosa. One was previously anorexic. The other woman did not have a prior history of

anorexia and she had identified with her father who was killed two years prior to the interview. The entire family was emotionally devastated and she had been depressed and basically non-functioning since his death. It was as if his demise had left her in stasis, foreclosed on his living internal representation.

Of the women with restricting anorexia, 7 were Diffusions compared to 4 Foreclosures, a finding inconsistent with the hypothesis that restricting anorexics would be over-represented in the Foreclosure status. This raises the speculation that there may be two subtypes of restricting anorexics. One subtype could be the classic anorexic: foreclosed and enmeshed within an overprotective family system which discourages active exploration and differentiation. The other subtype in the Diffusion status could be manifesting a personality disorder similar to borderline, as well as an eating disorder, consistent with research by Johnson, Toby, and Enright, (1989). These investigators suggest that approximately one-third of eating disordered patients have marked borderline features and are significantly disturbed. Based upon the content of the interviews of the 7 Diffusions, 4 appeared to be "unhealthy" Diffusions; there seemed to be an emptiness about them, as if there were "nobody home". They appeared to lack the core, internal self-structure necessary for constructing an identity. Although clinical intuition based on the

interviews may be accurate, the possibility that these 4 women have borderline features is speculative.

It was also noted that 2 of the restricting anorexics who were Diffusions were Foreclosed Diffusions (Josselson, 1987) in that they probably would have foreclosed on their parents had their parents offered something more substantial to foreclose solidly upon. Essentially, these women may have foreclosed on their parent's diffusion. Personality disorders may be evident in these women or they may comprise yet another distinct subgroup.

The present study is consistent with Marcia's conjecture (1988) and Josselson's (1987) findings that Identity Diffusions are not a uniform status. There appeared to be Diffusions with early developmental deficits, Diffusions originating from a diffuse family system, some coming from a cold and alienated family, and Diffusions in transition to Moratorium (i.e., "developmental Diffusions"). An important point to note is that for many of these women, their present status may be a transitional phase. For some persons, identity is like a structure in process, reworked and reconstructed as they meet the challenges of life experiences and relationships (e.g. marriage, career change, childbirth, separation from or death of beloved), (see Francis, Fraser & Marcia, 1989). For others, their identity status may persist through the life cycle as Josselson (1987) found with Foreclosure women and disturbed

Diffusions. It would be interesting to interview these women again to assess the effectiveness of therapy or change arising from life experiences.

Given the finding that women with eating disorders were characterized by Foreclosure and Diffusion statuses, there are two possible alternative interpretations. The first interpretation involves one of the rationales for this study which suggested that some Foreclosure and Diffusion daughters came from families who were concerned with physical appearance and public image. If the body, fitness and appearance were emphasized and sources for praise and value, these daughters may have been more susceptible to developing an eating disorder. Hence, Identity Foreclosure or Diffusion may leave some adolescents vulnerable to anorexia or bulimia if familial conditions that might engender eating disorders exist. An alternative explanation concerns the effect of having an eating disorder that began at adolescence on the adult identity status. Frequent hospitalizations or problematic symptoms may have disrupted these individuals lives, preventing optimal exposure to "the world". The exploration process may have been curtailed and any embarcations upon careers, relationships, or education may have been hindered. Many of the women interviewed commented that their plans to begin or return to school, or a career search were "put on hold" until they had controlled the eating disorder. Furthermore, their obsession with food

and eating behaviors, and for some, the desire to benefit from treatment, were more pertinent and pervasive than religious or political questions (philosophical or ideological quests), or even interpersonal issues. It may be that dealing with the symptoms and treatment of an eating disorder has taken primary importance over the task of identity formation. Considering this interpretation, it may be interesting to compare identity statuses of persons who have eating disorders with other clinical populations where the disorder also began at adolescence.

Social-Cognitive Styles

Contrary to expectations, the proposed social-cognitive differentiation between the clinical and control groups, and among the subtypes of eating disorders, was not found. These results are inconsistent with two other studies which found cognitive disturbances among women with eating disorders (Strauss & Ryan, 1988; Toner, Garfinkel & Garner, 1987).

The non-significant results from the present study suggest four possibilities: the sample size may be too small to detect significant differences; findings from the previous studies may be limited and misinterpreted; the model applied is inappropriate and women with eating disorders do not have a characteristic cognitive approach to the world; and/or, the present version (Ball, 1988) of

the epistemic doubt model has less explanatory power than the original version (Boyes, 1987).

First, the sample size includes 19 in the clinical group and 24 in the control group, totalling 43 subjects. If the size were increased to 30 subjects per group (15 restricting anorexics and 15 bulimics in the clinical group), yielding 60 in total, then significant differences might be detected, if they exist. An option then, is to continue collecting data to increase the sample size.

The second possibility suggested by the present results entails limitations in the findings and interpretation of prior investigations. In the study involving the Matching Familiar Figures Test, bulimic anorexics made more errors than restricting anorexics and controls, interpreted as indicating cognitive impulsivity (Toner, Garfinkel & Garner, 1987). However, criticisms directed at this research are: patient diagnoses span five to fourteen years prior to the investigation; measurement of cognitive style occurred only once since the original diagnosis and at some point between five and fourteen years after diagnosis; and the failure to assess cognitive ability may have been a potential confound.

With respect to Strauss' and Ryan's (1988) study, a possible interpretation is that the cognitive distortions found were associated more with depressive symptomology than eating disorders. The cognitive distortions revealed were overgeneralization, selective abstraction, personalization,

and catastrophizing, all associated with depression. It is possible, then, that their measures may have detected the cognitive correlates of depression rather than eating disorders. Research has indicated a relationship between depression and eating disorders (Laessle, Kittl, Fichter & Pirke, 1988; Pope & Hudson, 1988), raising the possibility that the cognitive distortions are a function of depression. This leads to further speculations that the observed cognitive dysfunction is indicative only of depression or that the distorted cognitions are involved in the etiology and maintenance of eating disorders, subsequently leading to depressive symptomology. Further investigations should include groups of non-depressed persons with eating disorders and depressed persons without an eating disorder.

The third suggestion stemming from the results is that there may not be a characteristic underlying approach to the social-cognitive world for women with eating disorders. Bruch (1978) posited that individuals with eating disorders were less cognitively advanced, primarily in their approach to personal problems, hence the exploratory application of Chandler's stage model of hierarchically sequential epistemological positions. Because the results did not support the hypothesis, the immediate assumption is that social-cognitive differentiation does not exist between eating disordered and non-eating disordered women.

However, addressing the third speculation raises the

possibility that it is not the model that is inappropriate, but its present version. In its original conception, the epistemic stage positions were as follows: Realism, Dogmatism, Skepticism, and Rationalism (Boyes, 1987). When Ball (1988) utilized the epistemic doubt model for her thesis, the positions and labels were altered. At present, the epistemic postures are: Naive Realism, Defended Realism, Dogmatism-Skepticism Axis, and Post-skeptical Rationalism. The differences between the two versions lie in the Defended Realism position and the Dogmatism-Skepticism Axis, not only in their labelling and conceptualization, but also in their hierarchial position.

The conceptualization of Ball's Defended Realism position is similar to Boyes' Dogmatism. Both are considered the transition point from concrete operations into formal operations. Opinions are based on vested interests which predispose people to bias the facts in their favour; i.e., a shared truth or facts exist, but this is obscured by people's self-interested biases. The resolution is seen as involving an objective, disinterested third party.

Ball (supervised by Chandler) relabelled Boyes' Dogmatism position, Defended Realism, and then reconstructed Dogmatism by placing it as the polar opposite of Skepticism within the Dogmatism-Skepticism Axis (see Appendix D). This alters the hierarchical sequencing of advancing epistemology. With Boyes' model, the Dogmatist is less

advanced than the Skeptic, who is less advanced than the Rationalist. Ball, however, makes no hierarchic distinction between the Dogmatist and Skeptic. Additionally, in the present data, only 1 person out of 43 seemed to fit into Ball's Dogmatism position, and even in this case it was difficult to distinguish between Defended Realism and Dogmatism. Hence, there may not be a necessary distinction between Ball's Defended Realism and Dogmatism.

If the current data are analyzed in light of Boyes' original epistemic doubt model, significant results are obtained (see Appendix D). By utilizing the hierarchic arrangement, two epistemological groups were created. One involves Boyes' Dogmatism, or Ball's Defended Realism plus the one Dogmatist, the other are Skepticism and Post-skeptical Rationalism combined together. Although the Skeptics are considered less advanced than the Rationalists because they are less likely to employ reasonable decision-making strategies, they are more similar to the Rationalists than to Dogmatists because they recognize and experience the subjectivity of knowledge and understanding, as well as being further advanced from concrete operations. Hence, the two comparison groups are comprised of Dogmatists/Defended Realists who are hoping to find absolute certainty and tend to rigidly approach dilemmas, and Skeptics and Rationalists, both of whom understand the relativity of knowledge, and thus are more cognitively flexible.

Chi-square analysis resulted in significant differences in group membership among the two revised epistemic stances. The clinical group was under-represented in the Skepticism/Post-skeptical Rationalism positions compared to the control group; $X^2 = 4.33$, ($df = 1$); $p < .05$. In comparing restricting anorexics to the bulimic subtypes, significant results were obtained using Fisher's Exact Probability Test, $p = .017$. Bulimics were under-represented in the Dogmatism/Defended Realism position ($n = 0$), and over-represented in the Skepticism/Post-skeptical Rationalism positions.

Although the sample size was small and some manipulation of theoretical conceptualization and positions was involved, these significant results suggested that social-cognitive differences do exist between the clinical and control groups, and among eating disorder subtypes. Women with eating disorders appeared to be less advanced in their social-cognitive approach to the world. However, the results may have been confounded by education because the control group had a significantly higher level of education than the clinical group. Subjects in the control group received from 1 to 3 years of post-secondary education, thus having the opportunity to further epistemological development. The clinical group had greater variability, ranging from one woman with a grade 10 education to a woman in her third year of medical school. In comparing subjects

in the clinical and control groups who had 13 years of education or more, the distribution of subjects in each epistemological position were similar (see Appendix D). Over 60% of both groups were characterized by Post-skeptical Rationalism whereas 12% to 25% were in the Defended Realism/Dogmatism and Skepticism positions. The clinical subjects who had less than 13 years of education had a different pattern from subjects with post-secondary education. Only 18% were Post-skeptical Rationalists compared to 45% who were Defended Realists/Dogmatists and 36% who were Skeptics. Hence, post-secondary education appeared to promote epistemological development.

Differences also exist among the eating disorder subtypes in social-cognitive style. The results suggested that some restricting anorexics assume a Defended Realism/Dogmatism position whereas bulimics do not. Some restricting anorexics may be more likely, then, to engage in all-or-nothing, dichotomous thinking, relying on external sources for decision-making. Again, however, educational years may have confounded the results. In comparing the distribution of the clinical group in each epistemological position, only restricting anorexics who had less than 13 years of education were Defended Realists/Dogmatists (46%). All other restricting anorexics and bulimics, regardless of educational years, were more evenly distributed in the Skepticism and Post-skeptical Rationalism positions (see

Appendix D). Many of the clinical subjects had commented that their eating disorder disrupted their education by either preventing them from beginning college or university, or interrupting their education. Those affected the most appear to be the restricting anorexics who adopted the Defended Realism/Dogmatism stance. The eating disorder may have forestalled their educational advancement, and consequently, delayed further epistemological development. One possible interpretation of this finding is that lack of post-secondary education may be a contributing factor in the maintenance of restricting anorexia. Since epistemological development is not advanced nor advancing, they do not have the ability to resolve social-cognitive problems on their own or engage in independent decision-making.

The finding of the educational confound in epistemological development is important in light of other studies which have found cognitive differences between eating disordered and non-eating disordered groups and between eating disorder subtypes. The studies by Strauss and Ryan (1988) and Toner, Garfinkel and Garner (1987) did not assess the influence of education on cognitive styles. One of the findings to note was that bulimics were more cognitively impulsive than restricting anorexics and non-eating disordered persons (Toner, Garfinkel & Garner, 1987). In the present study, regardless of educational years, bulimics and restricting anorexics were equally likely to be

represented in the Skepticism position, hence the results did not indicate that bulimic subtypes were more skeptical and thus given to cognitive impulsivity than restricting anorexics. Bulimics, however, were likely to be more epistemologically advanced, using rational strategies for decision-making. Again, it appears that bulimics are developmentally more advanced than restricting anorexics.

Identity Statuses and Social-Cognitive Styles

Results from the present study suggest that identity statuses have an association with eating disorders and epistemological positions have an association with eating disorders although education confounds the results. An interesting finding, however, is that identity statuses and social-cognitive styles are not related to each other. It may be that a very large sample is necessary to obtain any reliable and significant findings considering the number of cells. However, a pattern does not appear to exist. This lack of pattern is inconsistent with the hypotheses, the proposed developmental models, and previous findings by Boyes (1987).

The results do not support the developmental models which postulated the following three pathways: 1) the optimal developmental pathway evolves from secure attachment and a question-asking parenting style which engenders

Skepticism and Post-skeptical Rationalism and the identity statuses of Moratorium and Achievement; 2) one non-optimal developmental route involves insecure or ambivalent attachment and parental question-answering leading to Defended Realism/Dogmatism and the Foreclosure status; and 3) the other non-optimal pathway entails detachment and parental question-asking or question-sanctioning without guidance leading to prolonged Skepticism and Diffusion. The present study specifically investigated epistemological development and identity formation, and based on the current results, developmental pathways which foster particular epistemic positions or identity statuses have not been established.

Although the results of the present study do not support the developmental model, there may still be value in the proposed theoretical pathways. Data exist which support the theoretical links between identity statuses and attachment (Kroger, 1985), identity statuses and the family environment (Marcia, 1980, McGee, 1989), and identity statuses and cognitive development (Francis, Fraser & Marcia, 1989) as well as cognitive style (Slugoski, Marcia, & Koopman, 1984). Boyes' (1987) research also found some association between identity statuses and epistemological development, however the sample was younger than the present study's sample and the questionnaire version measuring identity statuses was utilized rather than the semi-

structured interview. Because some data appear consistent with an association between identity statuses and attachment, family dynamics, and cognitive development, empirical evidence for the proposed developmental model may yet be obtained, if all of these factors are examined and a different cognitive measure is employed which is not confounded by education or intelligence.

The "Cult of Thinness"

I wish I lived in some country where broad-beamed women were fashionable.

Margaret Laurence (1969, p. 4)

Empirical investigations of individual variables often run the risk of narrowing the vision by reducing the whole person, thereby eclipsing compassion for the suffering individual, and constricting the perspective such that the culture surrounding the person is ignored. The present study examined two psychological variables associated with eating disorders, however, a theoretical analysis of the culture will now be undertaken in order to link the data with sociocultural factors.

Society, the family, and the individual intersect and impact upon each other. The individual cannot extricate him/herself from the influence of the family or from that of society, and in turn, the individual affects the family and

society. Women with eating disorders who willfully fast, dread fat, and obsessively pursue slenderness, are not to be the sole focus of blame, denigrated for bringing this condition upon themselves. The individual with an eating disorder does not live in cloistered isolation. Instead, the individual disturbance must be viewed within the context of the culture.

The "cult of thinness" is a phenomenon of western, industrialized societies. However, there are observations of rising incidents of eating disorders in non-western societies as they become increasingly industrialized, adopting western economic and cultural values (Nasser, 1988; Kiriike, Nagata, Tanaka, Nishiwaki, Takeuchi & Kawakita, 1988). Something about western values instigates and perpetuates daily fasting and vomiting, creating "hunger artists" (Kafka, 1922) who seek recognition through bodily self-denial. Eating disorders are prevalent among women, and are rarely seen in men. Hence, many point an accusing finger at the values which encourage the imposition of societal ideals on women (Bemporad, Ratey, O'Driscoll & Daehler, 1988; Boskind-White & White, 1987; Steiner-Adair, 1986; Chernin, 1981), as well as promote both materialism and capitalism (Szekely, 1989; Orbach, 1986).

Chernin (1981) and Orbach (1986) speculate that the development of eating disorders is the tragic result of society's devaluation of women's personhood. Men and women

are different, but somehow, different means unequal, so that in this society, masculinity is better. Steiner-Adair (1986) proposes that society's misplaced valuation on the masculine strivings for autonomy and independent achievement have led to the devaluation of more prototypical feminine aspirations, especially the maintenance of relationships. She claims that

the development of eating disorders may exist when thinness and normal dieting become symbolically tied to autonomous career achievement and a denial of the importance of and need for interpersonal relationships. . . . If we look at the collective phenomenon of starving young middle and upper class girls in this culture as a body politic instead of a body pathological, the emaciated females become a symbol of a culture which does not support female development or the value of relationships which is central to the adolescent girl's identity (Steiner-Adair, 1986, p. 107).

Whether the anorexic body is a symbolic representation of contemporary society's devaluation of relationships or a metaphor for society's attempts to invalidate women, the message is the same. Society objectifies women, overvaluing a prescribed external appearance, and delegitimizes women's internal experience to such an extent that women's bodies, needs, desires, and values have become unacceptable to women themselves. Without reducing the complexity and enormity of women's objectification and undervaluation, the foregoing is a simplified list of that which is presently rejected and denied from women by women and by society: curvaceousness, food, sexuality, and connectedness.

Fashions change and today, the thin, non-voluptuous, prepubescent-looking body is the current beauty demand. Women, encouraged to focus on externals, are now acutely conscious of gaining approval from others and themselves based upon having slender bodies. Maybe the anorexics and bulimics who are present today rarely existed when Botticelli created his Venus, Rubens painted the large daughters of Leucippus, or Renoir sensitively painted curvaceous female nudes. The beauty ideal in previous times were large, round, matronly bodies. Even Marilyn Monroe, the heroine of the 1960's, "if she were alive now, and still as grand and voluptuous as she was then, would today no doubt be considered fat" (Chernin, 1981, p. 89). If present day anorexics and bulimics lived when the ideal was plumpness, these women might have dreaded thinness instead of fat. Now however, the fashionable image society projects is a thin, bony body and that is the standard by which women are judged.

A vicious cycle has been formed whereby the societal objectification of the female body and devaluation of women's personhood are transmitted through the media and the family, and then vulnerable women who experience diminished self-worth rely on the external sources of the family and society to provide them with means for achieving self-worth. The media, which is society's instrument, target women as the "object" to which is sold fashion, cosmetics, and diets,

as well as lifestyles and values. If a woman wishes to obtain worth in contemporary society, she must conform to the ideal image of a woman who succeeds in a career, as well as put on the "destined livery" of marriage and children, all the while being thin, and therefore beautiful, desirable, feminine, yet independent, autonomous, and bold. The family, the reinforcer of cultural values, colludes with the deception that their daughters may achieve the ideals dictated by society, and simultaneously denies their daughters' experience, selfhood, and womanhood. Those aspiring to thinness are fearful adolescents and young women who want to fit the ideal because they want to be valued by others, and most importantly, by themselves.

115. While sociocultural and familial factors inevitably impinge upon the person, individual characteristics may make some women particularly vulnerable to developing an eating disorder. ~~In the present study, it was suggested that delayed epistemological development and identity formation were~~ associated with eating disorders. Especially for some restricting anorexics who are less epistemologically advanced, the resolution for personal problems would be obtained from external resources. Losing weight and hence, changing one's physical appearance is a concrete, tangible solution for feelings of worthlessness, a remedy that society encourages. Women with eating disorders were also characterized both as

119. Foreclosures, insecure conformists who

subscribe to familial and societal rules and expectations, and as Diffusions, drifting flounders externally validated and influenced by societal pressure. Somehow, ^{all their} ~~their~~ cumulated experiences with their caregivers and the dynamics within the family have ^{not lead to} ~~impeded~~ the healthy construction of their own identity. For these women, it has been difficult to maintain an inner sense of sameness and solidity within the context of relationships. Not firmly rooted in themselves, their lack of self-worth makes them prey to the forms offered by the culture, transmitted through the family and the media.]

MS. succumbed Women with eating disorders may be viewed as having succumbed to the demands of their family and society in order to gain the recognition and self-worth which they have difficulty in giving to themselves. They strive to achieve the ideal body and the "prizes" (wealth, status, lovers) associated with it in order to obtain this societally sanctioned form of worthwhileness. They have consumed the current societal expectation that the external, thin body be the basis of women's value in society, and thus women's identity.

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APPENDIX A

Identity Status Interview: Late Adolescent Form

General Opening

How old are you?

What year are you in? (if college)

How long have you been out of high school? (if not college)

What have you been doing since high school? (if not college)

Where are you from? Where did you grow up?

Where do you live now? Do you live with your parents, on your own, with someone else?

How do you feel about living where you do?

Are both your parents alive?

(If not) At what age were you when your _____ died?

Have your parents ever been separated or divorced?

(If yes) How old were you when this occurred?

What happened for you then? Lived with whom? How was it for you?

Any stepparents?

Who are the most important parental figures for you? (Use these persons for the next questions calling for "father" and "mother".)

Tell me about your father's educational background?

What type of work does he do?

And your mother, what is her educational background?

What type of work does she do?

Any brothers or sisters? Tell me about them.

Occupation (College)

How did you decide to come to _____ (name of college or university)?

What are you majoring in?

How did you decide upon _____?

What do you plan to do with _____?

What seems attractive to you about _____ (either the major area of study, the future application of the area, or both, if appropriate)?

What other things have you considered besides _____?

When did that occur?

Tell me about how that was for you.

How do you feel about your current position with respect to _____?

Most parents have plans for their children, things they'd like them to do or go into. Did yours have any plans like that for you?

How do your parents feel about what you're doing now? About your future plans?

How willing do you think you'd be to change doing or going into _____ if something better came along? (If S responds: "What do you mean by better?") - Well, what might be better in your terms?

Occupation (Working)

How long have you been working at _____?

How did you come to be doing this?

What is _____ like for you?

Do you plan to stay there? What benefits do you see? What drawbacks?

What future do you see for yourself as a _____ (or with) _____?

(If S plans to stay at current work place, or if he/she has plans to do something else, choose the most dominant plans and ask:)

What seems attractive to you about _____?

What other things have you considered besides _____?

When did that occur? How serious were you?

Tell me about how that time was for you.

How do you feel about your current position with respect to _____?

Most parents have plans for their children, things they'd like them to go into or do. Did your parents have any plans like that for you?

How willing do you think you'd be to change doing or going into _____ (dominant plans) if something better came along? (If S responds: "What do you mean something better?") - Well, what would be better in your terms?

Religion

Do you have any particular religious affiliation or preference?

How about your parents, do they have any religious preference?

What religion was each of your parents raised in?

How important is religion to your parents?

(If important) Can you give any examples?

Tell me about your religious beliefs as they stand now. (If S cannot articulate these, then ask more specific questions, e.g. How do you feel about personal vs. organized religion? Do you think that there's a God? What is the basis for your standards in resolving moral issues?)

Was there ever a time when you came to question or doubt your religious beliefs? (If so) Tell me about that time; what was it like for you? What type of things did you question? What started you thinking about these questions?

How serious were these questions for you?

How did you resolve your questions at that time?

Are there still undecided areas for you? (If so) How important are they? What do you think will happen in terms of your beliefs?

Did you used to be active in religious activities, e.g., youth groups, attending services, observing holidays? Were you in (catechetical classes, confirmed, Bar Mitsuahed?)

How about now, are you active in any of the above?

Do you get involved in discussions about religious issues?

(If so) Tell me about them.

How do you think you'll raise your children with respect to religion? Why?

Politics

Do you have any particular political preferences? (If S asks: "What do you mean by political preferences?", respond:) Either party preference or general political position. For example, liberal or conservative.

How about your parents, what is each of their political preferences?

How important is politics in your home?

(If important) Can you give me some examples?

Tell me about your political views as they stand now.

Are there any social issues about which you feel strongly?

Tell me about them. (If S cannot respond at any length to either one of the above questions, then pose specific issues such as: abortion, ecological issues, political-military intervention in other countries, or whatever social issues are fairly widely acknowledged to be of current importance.)

How did you come to develop your beliefs?

What do you feel have been the most important influences on your political-social ideas?

Have you ever gone through periods of doubt or questioning about your beliefs?

(If so) Tell me about that period. What was it like? How did you resolve the questions?

How do your parents feel about your beliefs as they stand now?

Are there differences between yours and your parents' beliefs?

Have you ever taken any political action, like joining groups, participating in demonstrations, electoral campaigns, writing letters to the government or newspapers?

Do you think your beliefs might change much in the future?

(If so) How do you think they might change?

How would you like to see your children raised with respect to political issues? Why?

Sex Role Attitudes

Now, I'd like to change the topic area a bit. I'd like to talk with you about your ideas of men's and women's roles in society today.

What characteristics do you associate with femininity? With masculinity?

Do you think there are psychological differences between men and women? (If so) Tell me what you think about them; what are they, where do they come from?

Do you think that men and women behave differently? (If so) How do you account for these differences?

How do you think things should be in terms of what women are supposed to be like and what men are supposed to be like?

How do your beliefs apply to you in your own life? Do they make a difference in what you do? (If so) Can you give me some examples?

Have you always thought pretty much the way you do now, or have your ideas changed substantially from when you were younger? (If changed) Tell me how that came about.

What are your parents' beliefs in this area?

Do you discuss these things with them?

What do they think about your ideas?

What would you do with your own children around the issue of sex roles? How would you raise them?

Are there any areas of concern remaining for you? (If so) How do you think they'll be resolved?

Can you see your ideas changing much in the future, or are they pretty stable?

Sexuality

Finally, I'd like you to tell me some of your beliefs concerning your own sexual behavior. (Frame questions according to sexual preference.)

What are your attitudes concerning sexual intercourse? When do you think it's all right to be sexually intimate with another person? When not?

How did you develop these ideas?

Have they changed much since you were younger? (If so) Tell

me how they've changed and what led to that change.

Do these beliefs make much difference to you in terms of what you actually do in relationships?

How about your parents? What do they think about sexual relationships?

Do you discuss your views with them? What do they think about your beliefs?

How about your children, how would you raise them with respect to the issue of sexuality?

How likely do you think you are to change your views in the future?

APPENDIX B

Nascent Skeptical Doubt Interview

Driving Age

In a small town in British Columbia a meeting had been called about whether the local high school should continue to offer a driver's education course. Many parents were against the school offering this course and many students wanted the course to continue. A committee of parents and a student's committee both wrote articles which appeared in the local paper before the meeting took place. Parts of these articles are shown below.

Report by
The Parents' Committee for Safe Driving

We are opposed to the high school offering a driver training course for its students. Scientific information presented in this paper over the past few weeks clearly shows that 16 year olds, as a group, are not responsible enough to be trusted with the handling of a motor vehicle. While the law now permits 16 year olds to obtain a driver's license, with parental permission, teenagers should not be allowed to drive until they are at least 19 years old. Offering a driver training course through the school puts unfair pressure on parents to let their children learn to drive before they are 19 years old. The course must be taken out of the school immediately for the safety of all concerned.

Report by
The Student Committee for Young Drivers

We are in favour of continuing the driver training course in our high school. The scientific information that has been printed in this newspaper and elsewhere support the view that 16 year olds are just as responsible as adults and should be able to learn to drive as soon as they are legally allowed to do so. The driver training course in the high school encourages students to follow a proper training program and become better drivers. The law allows us to drive at 16 years of age and we should have a training course in our school for everyone to take.

Specific Probes for Driving Age

- I.
 1. On the basis of what you've read tell me what the parents' and students' committees said about the issue of 16 year olds being responsible enough to drive.
 2. Are the arguments and conclusions of the two committees (as they are presented here) different in any important ways? How are they different?
- II.
 1. How could these two committees end up having such different things to say about the issue of 16 year old being responsible enough to drive?
 2. Why do you think these two committees wrote such different articles?
 3. Do you think one of the committees has got the facts wrong? How important is that to the disagreement? (Would that be important?)
- III.
 1. If these two groups had all of the same information, might they still disagree? Explain why that is or is not possible?
 2. It sounds as though you're saying people can view things in any way they want, is that what you're saying?
 3. What if another group reviewed the same information and decided that kids should be allowed to drive when they were twelve years old, would that be an O.K. opinion to have? Why or why not?
 4. What if a group of specialists reviewed the positions of the parent and student committees. Do you think that the specialists might know what was best to do? What makes you say that?
- IV.
 1. Is there a way of deciding which of these reports the principle should pay most attention to in deciding the fate of the driver training course? Why or why not?
 2. What kinds of things might the principal consider in order to determine what to do about the driver education course?

Native Lifestyles

Recently sociologists who have spoken to West Coast Indians and studied their society published two new books about the West Coast Indians and their relation to our non-native society. What follows are paragraphs from the first page of each of these new books.

Cultural Independence and the Coastal Indians

We have interviewed, lived with, and studied the West Coast Indians and their culture and have found that they led happier, richer, more meaningful lives when they lived on their own tribal groups than they did after they had contact with Europeans and others who settled in North America. Even though modern influences have improved a few things overall, contact with non-native people since pioneer times has brought the Coastal Indians many problems. These problems are so serious that the best thing that could happen would be for native people to become more independent of non-native groups.

West Coast Indians: A Case for Cultural Integration

Based on a large research project in which we lived with and interviewed West Coast Indians and studied their culture, we found that their lifestyle today is happier and more prosperous than it ever was. Modern knowledge in such areas as health care and education and modern technology in the fishing industry and other areas has greatly increased the standard of living, financial security, and happiness of the West Coast Indians. Even though a few problems have been created in the course of the many changes that have taken place as a result of contact with the non-native society, overall, the benefits far outweigh these temporary adjustment issues. The best thing that could happen would be for native people to increase their contact with the non-native population.

Specific Probes for Native Lifestyles

- I. 1. On the basis of what you have read, tell me about what these two groups of authors have written about West Coast Indians and their relation to our non-native society.

2. Are the arguments and conclusions in these two books different in any important ways? How are they different?
- II.
1. Why do you think the authors of these two books reached such different conclusions in their books?
 2. On the basis of what you have read, do you think that one of these books is mistaken about what has happened in the lives of the West Coast Indians? How important are such mistakes in accounting for the different conclusions of these books? (Would they be important?)
- III.
1. Since these two groups of sociologists interviewed, lived with, and studied the same Indian group, how could they end up having such different things to say about West Coast Indians and their relation to our non-native society?
 2. It sounds as though you are saying that people can view things in any way they want, is that what you mean?
 3. What if another group of sociologists looked at these same facts and wrote a book which said that the children of native parents should be removed from their homes at birth and raised in non-native households. Would that be an O.K. opinion to have? Why or why not?
 4. What if another group of West Coast Indians read both of these books, would they be able to tell whether more or less contact with non-natives would be best for native people? What makes you say that?
- IV.
1. Is there a way of deciding which of these books government officials ought to pay most attention to in deciding what would be best for the West Coast Indians? Explain further or why not?
 2. What other kinds of things might government officials consider in order to get a clear picture of whether West Coast Indians would be better off with more or less non-native contact?

General Probes

What is it about these situations that makes finding out or deciding what is best or right so difficult?

Is that true just for these situations or is it generally true? That is, are these just weird situations or are there a lot situations like these in life and the world?

How should we approach these sorts of situations, what should we do?

How should we decide what to believe and what to do?

We could just decide to go our own ways when we disagree but as in these situations, we often cannot do that. What then shall we do?

How do we decide what to think in these sorts of situations?

APPENDIX C

DESCRIPTIVE ANALYSES OF INTERVIEWS

Descriptive Analysis of Non-independent Interviews versus Independent Interviews to Determine Contamination of Identity Statuses in the Clinical Group

<u>ISI</u>	<u>Interviews</u>	
	Non-independent Interviews (n = 11)	Independent Interviews (n = 9)
Moratorium	9 %	22 %
Foreclosure	27 %	33 %
Diffusion	64 %	44 %
Total	100 %	100 %

Descriptive Analysis of Non-independent Interviews versus Independent Interviews to Determine Contamination of Social-Cognitive Styles in the Clinical Group

<u>NSDI</u>	<u>Interviews</u>	
	Non-independent Interviews (n= 10)	Independent Interviews (n = 9)
Defended Realism	30 %	22 %
Dogmatism-Skepticism	30 %	45 %
Post-skeptical Rationalism	40 %	33 %
Total	100 %	100 %

Descriptive Analysis of Interviews by Identity Statuses and Social-Cognitive Styles

Non-independent Interviews

<u>ISI</u>	<u>NSDI</u>		
	Defended Realism	Dogmatism- Skepticism	Rationalism
Moratorium	0 %	0 %	10 %
Foreclosure	20 %	10 %	0 %
Diffusion	10 %	20 %	30 %

Independent Interviews

<u>ISI</u>	<u>NSDI</u>		
	Defended Realism	Dogmatism- Skepticism	Rationalism
Moratorium	11 %	11 %	0 %
Foreclosure	0 %	22 %	11 %
Diffusion	11 %	11 %	22 %

APPENDIX D

Epistemological Development: Original and Current Versions

Boyes (1987)

Ball (1988)

Realism

Naive Realism

Dogmatism

Defended Realism

Skepticism

Dogmatism-Skepticism
Axis

Rationalism

Post-skeptical
Rationalism

Social-Cognitive Styles - Revised

Chi-square Analysis of Social-Cognitive Styles by Group Membership

<u>NSDI</u>	<u>Group</u>		Total
	Clinical	Control	
Defended Realism/ Dogmatism	6	5	11
Skepticism/ Post-skeptical Rationalism	13	19	22
Total	19	24	43

* Chi-square = 4.33, df = 1; p < .05 (significant)

Fisher's Exact Probability Analysis of Social-Cognitive Styles by Eating Disorder Subgroups

<u>NSDI</u>	<u>Subgroup</u>		Total
	Restricting Anorexia	Bulimia	
Defended Realism/ Dogmatism	6	0	6
Skepticism/ Post-skeptical Rationalism	5	8	13
Total	11	8	19

* Fisher's Exact Probability = .017 (significant)

Distribution of Clinical Group with Less than 13 Years, Clinical Group with 13 Years or Greater, and Control Group with 13 Years or Greater on All Epistemic Positions

<u>NSDI</u>	<u>Group</u>		
	< 13 years (n = 11)	Clinical 13 or more (n = 8)	Control 13 or more (n = 24)
Defended Realism/ Dogmatism	42 %	12.5 %	21 %
Skepticism	33 %	25 %	17 %
Post-skeptical Rationalism	25 %	62.5 %	62 %
Total	100 %	100 %	100 %

Distribution of Eating Disorder Subgroups by Educational Years on All Epistemic Positions

<u>NSDI</u>	<u>Subgroup</u>			
	Restricting < 13 (n = 11)	Anorexia 13 or more	Bulimia < 13	Bulimia 13 or more (n = 8)
Defended Realism/ Dogmatism	46 %	0	0	0
Skepticism	18 %	18 %	18 %	12.5 %
Post-skeptical Rationalism	9 %	9 %	25 %	37.5 %
Total	100 %		100 %	