

Escaping the Self in Binge Eating:  
The Association Between Identity Style and Bulimic Behavior

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Abstract

Two theoretical models pertaining to the development and maintenance of bulimic behavior were compared to examine the relationship between bulimia and identity in young adult females. Escape theory posits binge eating is an unintended result of “escaping the self”, or the avoidance of thinking about identity issues. In contrast, the functional explanation proposes binge eating is more likely a predictor of, and possibly a mechanism for, avoiding self-identity issues. Questionnaires designed to measure six social-cognitive variables, including depression and a diffuse/avoidance identity processing orientation were completed by 193 female university students. Linear structural equations revealed more support for the view of bulimia as functional or purposeful. Bulimic behavior predicted the avoidance of identity issues rather than the converse. Implications of the link between bulimia and identity are discussed.

## Escaping the Self in Binge Eating:

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Bulimia nervosa is a complex eating disorder characterized by frequent binges, wherein the individual consumes vast amounts of food, and by the habitual use of vomiting or laxatives to compensate for the overeating. The disorder is almost ten times greater among females and the onset is typically late adolescence. Some consider bulimia to have reached epidemic levels in females ages 18 to 24 years, as the prevalence found in non-clinical college student samples has ranged from 3% to 20% (see Fairburn & Beglin, 1990). More conservative statistics using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association [APA], 1994) suggest the rate is 1% - 3%; but these statistics do not include the additional ten or so percent of individuals who are not diagnosed, yet may have many but not all of the symptoms, or have subclinical eating disorder behaviors. Indeed, prevalence reports of only binge eating, the core symptom of bulimia, indicate it is even more common. Fairburn and Belgin's (1990) review suggested a rate of 45.9% in weight control samples, but reports have ranged as high as 90% for binge eating. Although there are discrepancies in rate across studies due to differences in diagnostic criteria, sampling, and frequency criteria, overall, there has been considerable concern about the widespread prevalence of bulimic symptomatology in females on university campuses (see Streigel-Moore, Silberstein, French and Rodin, 1989).

A multidimensional disorder, bulimia has been linked to several biological, social, psychological, and familial predisposing factors. In recent years, there has been increasing pressure to develop a model which encompasses several or all of these variables at once, in order to gain a clear understanding of the mechanisms underlying the development and maintenance of its self-defeating symptoms. It seems paradoxical that bulimics continue to binge eat when the behavior is thwarting their pursuit of thinness (as most bulimics are of normal weight). Much of the research to this date has focused on the predisposing factors and the consequences of binge eating in bulimia, without solid insight into the process involved, and explanations for why the behavior is perpetuated. Lately, important research has begun to elucidate

the association between bulimic behavior and certain personality factors, such as depression, stress, coping strategies, and one's sense of self; all of which seem to be key influences in the development and maintenance of the disorder. The escape theory of binge eating put forth by Heatherton and Baumeister (1991) is one model that has managed to integrate the literature on each of these factors; it lends insight into why bingeing occurs and what purpose it serves the individual.

### Escape Theory

Heatherton and Baumeister (1991) have posited that binge eating can be conceptualized (see Figure 1) as an effect of trying to escape the distress associated with high and aversive self-awareness. In this theory painful self-perceptions are the result of failing to meet the perfectionistic self-standards the individuals hold for themselves. A profound sense of ineffectiveness and a desire to escape accompanies the negative affect. The escape response is characterized by shifting awareness from the self onto food that results in disinhibition and binge eating. The mechanism involved in inducing a binge is an avoidance of meaningful thought, about ongoing identity, achieved by narrowing one's attentional focus to the immediate stimulus environment (i.e., to low level, concrete thinking; Heatherton & Baumeister, 1991). Baumeister (1991) termed this process "mental narrowing" and suggests that binge eating is reinforced and bulimic behavior is perpetuated because the individual abandons thoughts about the implications their actions have in terms of one's identity, and because it successfully serves to reduce negative affect related specifically to one's self (i.e., the aversive self-awareness).

### Perfectionistic Self-Standards

Since binge eating is a primary feature of bulimia in clinical and non-clinical populations, it has been deemed appropriate to use research findings on bulimia to support the presence of each component of the model. Bulimic individuals have demonstrated perfectionistic tendencies in many realms of their lives.

Although the literature has emphasized the unrealistic criterion they hold for themselves in terms of dieting and slimness, it has also been observed that those suffering from eating disorders are frequently

achievement-oriented (Bruch, 1973; Halperin, 1996), and that they struggle to live up to excessive personal standards in several arenas of life. Likewise, Hewitt, Flett, and Ediger (1995) report that both self-oriented and socially prescribed perfectionism (the perception that others are imposing expectations of perfection on oneself) are correlated with disordered eating patterns, which is concordant with the fact that binge eaters and bulimics suffer from extreme sensitivity to the perceived demands of others along with the demands they place on themselves.

### Self-awareness

The escape model of binge eating proposes that an aversive sense of self-awareness arises from comparing the self with ideal, perfectionistic, and unachievable self-standards. Binge eaters are acutely sensitive to their self-standards, and when they fall short, binge eaters view themselves negatively and assume that others do as well. Higgins, Vookles, and Tykocinski (1992) examined undergraduate students' self-discrepancies and eating patterns, and proposed that symptoms associated with bulimia, but not with anorexia nervosa, were positively related to a self-belief pattern that suggested a "chronic failure to meet one's positive potential" stemming from a comparison of the actual self to an ideal self-standard (p. 135). Ewell, Smith, Karmel, and Hart (1996) note that adolescents with eating disorders frequently experience exaggerations of age-typical transitions in the sense of self (e.g., heightened objective self-awareness or self-consciousness, and conflicts among representations). Indeed, Streigel-Moore, Silberstein, and Rodin (1993) found that individuals with bulimia were higher in public self-consciousness than were controls; and Baumeister (1991) notes that it is because this self-consciousness coexists with a negative self-evaluation that bulimics want to escape.

Hewitt, Flett and Ediger (1995) suggest that the need to avoid revealing personal flaws in physical appearance is important for bulimics because the aversive awareness of failure to achieve their ideal weight and shape may remind them of inadequacies in other areas of life (Hewitt et al., 1995). Further, as posited by the escape theory, several researchers have identified unrealistically high expectations, and the subsequent inability to reach these standards, as a major cause of eating disordered

individuals' low self-esteem, feelings of inadequacy, and perceived effectiveness (e.g., Katzman & Wolchik, 1984; Butterfield & Leclair, 1988).

### Depression

To a degree, focusing attention on oneself may be adaptive and guide future behavior; as Erikson (1950) suggested, it is necessary in adolescence in order to formulate one's identity. However, too much attention focused on the self is associated with depressive tendencies and other disorders (see Ewell, et al., 1996). Escape theory assumes that depression and negative affect will be generated as a result of high self-awareness in binge eaters. This assumption is supported by Higgins' (1990) report that large discrepancies between the actual self and the ideal self are associated with dejection-related syndromes such as depression.

The co-morbidity of clinical depression and bulimia is high. Connors (1996) has reported that up to 70% of patients with bulimia suffer from a major affective disorder, which supports the inclusion of depression in the escape model. However, the causal direction of the relationship between the two syndromes remains equivocal (see Beebe, 1994, for a review). Nonetheless, Heatherton and Bauemeister's (1991) escape theory suggests that depression is a form of distress that is coped with via mental narrowing, which leads to binge eating. In support of the escape model, Shatford and Evans' (1986) causal analysis of the stress process as it relates to bulimia indicates that depression is a source of stress rather than a manifestation of stress. Further, depression was found to be linked to maladaptive, avoidance coping mechanisms (i.e., stress mediators) that have a direct influence on bulimic symptomatology. This detailed conceptual model is concordant with the direction of effect postulated in the escape theory.

On a more specific level, stress, distress and negative affect have all been identified as emotional antecedents, or proximal triggers to binge eating (e.g., see Beebe, 1994; Lingswiler, Crowther, & Stephens, 1989). In fact, Elmore and de Castro (1990) studied the relationship of depression and anxiety to binge and non-binge (i.e., normal meal) eating, and found that untreated bulimics' emotionality and

depression were associated with binges but not with other meals. Several studies have found the negative affect to be reportedly lowered, during the binge itself (i.e., even without purging), and return to high levels afterwards (e.g., Beebe, 1994; Hsu, 1990), suggesting that the binge behavior may be reinforced by the removal of the distress and by the avoidance of negative cognition. Importantly, the stressors that trigger binge eating in restrained eaters and bulimics seem to be related specifically to aversive self-perceptions. The importance of ego involvement in distress was demonstrated in a laboratory research setting by Heatherton, Herman, and Polivy (1991), who found that dieters (but not unrestrained eaters) increased their eating in response to an “ego threat” which jeopardizes self-esteem and emotional stability (i.e., failure at an easy task or speaking in front of an evaluative audience), but showed no change in eating following a physical fear-inducing stress (i.e., threat of shock). In sum, not only is distress (i.e., depressive effect) more evident in the bulimic population, but in support of the escape theory, it seems to stem from a heightened sensitivity to self-relevant cues and a sense of ineffectiveness; it provokes the desire to escape and the use of avoidance coping strategies among bulimics; it is reduced during binge eating episodes; and it increases the tendency to binge eat especially when there is perceived threat to the self.

### Desire to Escape

The escape model posits that binge eaters will respond to the negative affect that accompanies chronic self-focused attention with mental narrowing, that is, by manipulating one’s mind so as to shift attention onto less anxiety-provoking stimuli (i.e., food), instead of using coping strategies that tackle the problem directly. Heatherton and Baumeister (1991) report that bulimic women are also likely to engage in other forms of escape including alcohol and drug abuse, self-mutilation, promiscuous sexual activity, and suicide, among others, to show how they have a greater desire to escape and are more impulsive in general.

Several other researchers have examined the coping strategies employed by those who binge or are bulimic as well. The types of precipitating stressful life events that have been reported by bulimic

women typically fall within a normative range of life experience for young women (e.g., separation from a significant person, interpersonal conflict, changes in lifestyle including starting college, etc.); and this suggests that individual intervening variables need to be examined to explain why bulimics react in such a way to normative life events (Cattanach & Rodin, 1988). Indeed, Shatford and Evans' (1986) multivariate causal analysis of the stress process in nonclinical bulimics found that it was the mediating (avoidant) coping strategies that had a direct influence on the subjects' likelihood to engage in bulimic behavior, rather than any direct effect of distress (or level of depression) itself. alternative (e.g., Denisoff, 1996; Janzen, Kelly & Saklofske, 1992).

Avoidance-escape coping strategies have been studied at length in clinical and non-clinical samples of bulimic women. However, the results have again been equivocal. Some researchers have found that non-clinical, female college students scoring high on self-report measures of bulimic symptomatology (e.g., EDI, Eating Attitudes Test [EAT]) are more likely to adopt avoidance coping strategies in stressful situations (e.g. Koff & Sangani, 1997; Mayhew & Edelman, 1989). Neckowitz and Morrison (1991) found that their clinical sample of bulimic women were more likely both to feel a greater sense of threat (i.e., increased arousal and negative appraisal), and to use escape-avoidance coping in intimate and nonintimate stressful situations.

In saying this, other research has shown avoidance coping is not correlated with bulimic symptomatology (Denisoff, 1996; Janzen et al., 1992). Janzen, Kelly and Saklofski's (1992) study of college undergraduates demonstrated no significant correlation of Bulimia Test [BUILT-R] scores to levels of avoidance coping as per the Coping Inventory for Stressful Situations [CISS]. The authors suggested this might have to do with the different eating and coping questionnaires being used. For example, in contrast with the BUILT-R, the EDI that Mayhew and Edelman (1989) used assesses general features underlying eating disorders in addition to its subscales for specific symptomatology. Likewise, Parker and Endler (1992) discuss the ineffectiveness of the current measurement instruments in measuring avoidance coping and also note that they do not generally detect the changes in orientation and style of

coping that are known to occur (Paxton & Diggins, 1997).

Thus, some questions remain as to whether bulimic behavior is consistently related to the use of avoidance or escape coping strategies. The present study attempts to deal with this issue by specifying the type of stressor binge eaters are avoiding, and by measuring only the coping style directly related to that particular source of stress. In addition, it is important to determine whether the desire to escape the distress, as measured by avoidance-oriented coping, has a significant influence on binge eating over and above the influence of depression. In the only known study attempting to study the escape model “as a whole,” Paxton and Diggins (1997) found that although depression may lead an individual to use avoidance coping, the use of avoidance coping strategies to predict binge eating was dependent on depression levels. Importantly, Paxton and Diggins (1997) noted their study did not examine avoidance strategies in response to stressors that specifically exacerbate aversive self-awareness, which would have been more accordant with the escape model. This may in fact be the key to why they, and some other researchers, have found no relationship between bulimic behavior and avoidance coping strategies. The escape theory explicitly states that the need to escape from oneself is not the same as the need to escape from problems or life stress in general. It is a response to problems associated with negative feelings about oneself (Baumeister, 1991).

Interestingly, even before Heatherton and Baumeister’s (1991) escape theory was proposed, Keck and Fiebert (1986) suggested that the obsession with food and weight provides eating disordered individuals a means to escape anxiety; moreover, that it allows them to avoid the question “what does my life mean to me?” by being preoccupied with dieting strategies (i.e., constant thinking about calorie input and output). These researchers used the Avoidance of Existential Confrontation Scale (AEC Scale; Thaulberger, Ruznisky & Cleland, 1981) to assess whether it was, in fact, “meaningful thought” that bulimics are avoiding; they found that inpatients with eating disorders exhibited the highest avoidance scores, in comparison to out-patients, who in turn showed more avoidance than normal dieters. Thaulberger and Sydiaha-Symor (1977) noted how the avoidance tactics measured by the AEC Scale

might be serving the well-being of the individual at least temporarily, by sparing him or her from those major life stresses or concerns that would otherwise be overwhelming or self-defeating. Keck and Fiebert's (1986) study assessed and found support for the core concept in escape theory as they found bulimia to be associated with avoidance of issues related to the self.

### Low Level Thinking and Binge Eating

Finally, Heatherton and Baumeister (1991) propose that binge eating is a consequence of the shift from higher-level abstract thinking (i.e., about identity issues) to lower-level, concrete thinking that is limited to the present and in this case, the sensations associated with eating. Motivated by attempts to avoid thinking about oneself, escape theory posits that once bulimics are in a situation where they feel they can evade the public's eye and reduce self-monitoring, mental focus or awareness narrows to the immediate stimulus environment in a state of cognitive deconstruction. That is, eating becomes disinhibited in these situations because distal cognitions about identity and the meaning of one's actions (e.g., implications for one's diet or weight goals and one's self-concept) are stripped away.

Research from the experimental setting lends support to the proposition that a cognitive shift takes place prior to, and intensifies, the binge episode. Research has found that dieters (but not nondieters) were more likely to subsequently engage in disinhibited eating after they had eaten a "preload" of food which they subjectively perceived as "breaking their diet" (e.g., a small bite of chocolate). Conversely, their belief that a more fattening chef salad was not enough to break their diet (even though the actual caloric content was more), resulted in them maintaining their diets (Baumeister & Heatherton, 1996). Thus, a minor violation of their rigid rules is seen as catastrophe, and this perception induces the person to relinquish all self-control. Indeed, Lingswiler et al. (1989) analyzed detailed records of a week's eating episodes using the self-reports of 19 bulimic and 15 binge eating college women. They concluded that, in contrast to control subjects, eating and bingeing episodes in these women were triggered by more opposing, dichotomous cognitions that allow for only restraint or overeating.

The escape hypothesis supposes that this cognitive rigidity, or all-or-nothing thinking

characterizes bulimics, and is evidence that they are rejecting meaningful thought. As Johnson, Lewis, and Hagman (1984) indicated, the highly ritualized and repetitive nature of the actions in the binge-purge episode may help bulimics to control or cope with external demands, by distracting themselves from thinking about complex issues, thereby helping them to organize their thoughts when overwhelmed. These authors also add support to the escape theory by relating the phenomenological experience of bulimics during the binge; many have described it as an 'altered state of consciousness' or a 'pleasurable sense of loss of control'. Carver and Scheier (1996) agree with the escape theory, and feel that the shift in attention to sensory experience, which allows for the dismissal of higher level thought, serves to protect the person (at least temporarily) from an awareness of discrepancies within the self. As Heatherton and Baumeister (1991) note, bulimics score high on scales measuring helpless beliefs about being able to overcome one's past and cope with future problems, and thus it seems that an escape into awareness only of the present would be desirable.

In sum, there is ample prior research using samples of binge eaters and bulimics to support the hypotheses made by the escape theory, including evidence for perfectionistic self-standards which lead to greater feelings of ineffectiveness, and depressive affect. In turn, these emotional states serve as motivation for using escape strategies especially in the face of threats to oneself. Mental narrowing as a strategy for reducing the aversive self-awareness is evidenced by the greater cognitive distortions exhibited by bulimics and binge eaters, and the desire to reject broadly meaningful thought. Most importantly, the central tenet of the escape theory which connects these findings is that the psychosocial stress being evaded in this process, relates primarily to thoughts and issues about one's ongoing identity. Thus, in testing the escape theory, it is necessary that one addresses the issue of identity, and look to why binge eating might be initiated and perpetuated due to the bulimic's sense of self.

#### The Central Role of the Identity Crisis

Heatherton and Baumeister (1991) highlight that the best example of escapist motivation is the bulimic's irrational belief that they will become someone else by being thin. They note how positive

responses to the statement “I wish I were someone else” on the EDI (Garner et al., 1983) are associated with eating disorders. Escape theory essentially posits that binge eating involves the individual’s desire to forget all the complex, abstract, wide ranging definitions of self (e.g. as daughter, A-student, etc.), and allows them to become just a body again via mental narrowing. It requires manipulating one’s mind and involves evading the struggle to form and maintain one’s identity (i.e., a certain perfectionistic image for bulimics); it means to give up on the quests for esteem and control which are central to the identity crisis of late adolescence (see Baumeister, 1991).

Given research supporting the escaping-the-self model and that eating disorders commonly begin in late adolescence, especially when females are entering college (see Striegel-Moore, et al., 1989), it is logical to believe that the development of bulimic behaviors must be related in some way to a struggle with individuating from their families and forming a solid sense of self. Humphrey (1986, 1989) has investigated bulimics’ perceptions of their families and suggests the potential bulimic wants to be independent from what she sees as a hostile, unempathetic, and neglected family, but at the time, separation-individuation is difficult because she finds herself ‘bound-up’ in parent-child conflicts. In their study, Smolak and Levine (1993) used the Psychological Separation Inventory (PSI) and found that in fact, bulimic women did appear to be underseparated in that they experienced more guilt and conflict over separation than controls; but they were overseparated in how much their beliefs, values, and attitudes (e.g. about religion, politics, etc.) differed from their parents. Further, they suggest that the combination of conflictual dependence with attitudinal independence is something other than a simple escape from a dysfunctional family.

Sparks (1992) explored whether eating disordered individuals differ in their identity status; that is, in the amount of crisis and commitment that has taken place in terms of forming beliefs, values, and attitudes central to identity development (Marcia, 1967). Although she found no differences with regard to categorical status of identity development using the Extended Objective Measure Identity Status (Bennion & Adams, 1986), differences emerged when the subscale scores were treated as continuous

variables. Eating disorder subjects scored higher on ideological diffusion and moratorium (some experienced crisis but no commitment in terms of occupation, religion, politics, and philosophical life style), and on interpersonal diffusion (no crisis or commitment in terms of friendship, dating, recreation, and sex roles issues). Conversely, they scored lower on ideological and interpersonal achievement than normal controls. These results reveal that eating disordered individuals may be more likely to be avoiding the “crisis” necessary to question and consider alternatives about the core concepts they will use to define the self, and are also less likely to demonstrate any sort of commitment to certain beliefs and values indicative of a solid sense of self-identity.

Finally, Schupak-Neuberg and Nemeroff’s (1993) investigation with subclinical bulimics lends support for the escape hypothesis and the centrality of the identity crisis in binge eating. They propose that the issue for bulimics does not essentially have to do with food and weight, but their problems are all an indication of an underlying weak or disturbed sense of self identity. They propose that in the absence of a strong sense of identity, bulimics are using their physical bodies to concretize the notion of self and to represent their inner identity. Shupak-Neuberg et al. (1993) found that bulimics reported greater identity confusion, perceiving their identities were enmeshed with others, and greater inconsistency in how they view themselves from one time to another. They suggest that their struggle with interpersonal relationships that often persists after treatment is the result of their struggle with identity issues. Lastly, in direct support of the escape model, identity confusion was positively related to a reported ‘escape from self’ during a binge.

These results underscore the importance of examining young women’s sense of self-identity as it relates to the development and maintenance of bulimic behaviors. It seems as though the way one is dealing with the issues surrounding identity development can be seen as a mediating variable in the escape model. However, if as this research demonstrates, bulimics have not yet formed a solid sense of self, then it would be necessary to measure the process they are going through as they move toward that development, rather than the structure or state of their self-identities.

### Identity Processing

Erik Erikson's life-span theory of psychosocial development (1968) proposed that forming a self-identity is an essential task for all individuals, as one's sense of self serves as an adaptive framework for interpreting personal experiences, and which allows one to answer questions about the purpose and meaning of life. Berzonsky (1990) adds that this "self-constructed" theory of the self guides the processes we use to cope with the demands and problems we encounter in the course of daily life. This process-based perspective from Marcia's (1967) view of identity as a relatively stable personality structure, and allows for the examination of self-identity as a dynamic construct that can be revised in response to contextual changes over the life-span. Indeed, our self-identity is formed in a social, relational context, and it is an ongoing process that occurs over time through interactions with our environment. Adams and Marshall (1996) note that identity resolution, or coherence, normally requires a dialectic process that involves some degree of distress due to the awareness of the incongruity between the real (actual) self and the ideal self. As difficulties dealing with this aversive self-awareness also plays such a big role in the escape model of binge eating, the way that one copes with this dialectic process may be at the core of bulimic psychopathology.

Berzonsky (e.g. 1989, 1990) has reconceptualized Marcia's (1967) four identity status "outcome" variables, into three processing orientations or styles of personal problem-solving and decision making which individuals use to form, maintain, revise, or confirm their self-identity. It is these social-cognitive processes that lead to different cognitive and behavioral strategies for dealing with stressors in every day life, including the way one negotiates stressful identity issues. Thus, Berzonsky (1990) proffers three different ways that individuals engage or avoid the task of constructing and revising their self-identities: (a) information-oriented individuals actively seek out, process, and evaluate relevant information before making decisions; (b) a normative orientation is characterized by conformity to the expectations and prescriptions of significant others, and a concern for preserving and maintaining existing self-views and opinions; (c) a diffuse/avoidance orientation involves the tendency to delay, procrastinate, and avoid

dealing with problems and decisions until situational consequences and rewards dictate a course of action (see Berzonsky, 1989, 1990). These identity styles are, in essence individual differences in the manner in which individuals with self-relevant problems and potential stressors. They are not stable personality traits, but rather, Berzonsky explains how differences in their use depend on motivational factors, and the situation and its consequences can play a role in which style one employs. However, they do represent strategies that one typically uses, or would prefer to use, when negotiating identity-relevant issues (Berzonsky, 1992).

It is latter identity style, the diffuse/avoidance style which the present study hypothesizes will correlate positively with bulimic behavior in a test of the escape theory. Moreover, as the theory emphasizes that what one is escaping is, essentially, meaningful thought about self-identity, a diffuse/avoidant identity style is conceptualized as the key variable mediating between the desire to escape aversive self-awareness and bulimic behavior.

The hypothesized relationships in the present study (see Figure 2) stem from the literature which links bulimic behavior to self-consciousness, perfectionistic self-standards, depression, and escape coping strategies as previously discussed with respect to the escape model; but most importantly, the main hypotheses for the current study are a result of the literature suggesting these same variables are associated with identity development. Specifically, Berzonsky's Identity Style Inventory (1989) has been used to elucidate the relationships between each of the processing orientations and certain social, cognitive, and behavioral characteristics. Only the findings that describe individuals employing a diffuse/avoidance style or who are classified as "identity-diffused" (as the two are correlated) are discussed here, as they provide clear and direct similarities with the social-cognitive correlates of bulimic behavior mentioned above.

Congruent with the elevated levels of self-consciousness in bulimics, Adams, Abraham, and Markstrom (1987) found that across identity statuses, high-school and college-age subjects who were diffused in terms of their ideological identity were the most self-conscious. Further, since identity

achieved subjects had significantly lower levels than the other three status groups, the authors suggest that simply experiencing the identity process (where one explores, tests out, and commits to certain life-styles that fit one's personality best), is a corequisite for the development of a sense of self that can be less anxiety ridden and self-conscious. Thus, if bulimics are actually escaping the self as Heatherton and Baumeister's (1991) model suggests, and if they do show a pattern of avoidance of identity issues in the present study, this identity confusion might be seen as the source of their high self-consciousness. Indeed, Erikson (1968) predicated that severe identity confusion is accompanied by a possibly destructive self-preoccupation that manifests itself in shame, narcissism, and constant self-testing; all of which has been used to describe bulimics as well.

Consistent with the negative affect component of the escape model of binge eating, individuals who adopt diffuse/avoidance identity styles also are more likely to experience debilitating anxiety reactions and less likely to be open to personal feelings (Berzonsky, 1989). In addition, diffuse/avoiders have been found to be significantly more depressed and neurotic than their informational or normative counterparts (Berzonsky & Ferrai, 1996). Nurmi, Berzonsky, Tammi, and Kinney (1996) also demonstrated that the use of a diffuse/avoidance style predicted higher levels of depressive symptoms, even though the effect of identity style was mediated by the use of certain cognitive and behavioral strategies in achievement contexts (i.e., less social-support seeking and success expectations, more task-irrelevant behaviors). As the authors note, since diffuse/avoiders delay identity work and life choices in some key life domains, they are most likely to have problems when faced with pressure to form an identity (e.g., in college), and consequently feel depressed (Nurmi et al., 1996). Thus, these researchers found that distress, coping style (identity style), and the cognitive and behavioral strategies used to cope with specific stressors are all important determinants of subjective well-being.

Similarly, other research on coping strategies provides strong evidence for the link between a diffuse/avoidant identity style and the escape model. Berzonsky (1992) notes that these coping strategies which focus on efforts to reduce, deny, or escape from the immediate emotional distress will minimize the

need to make changes in their self-structure because they avoid having to directly confront the source of the stress.

Finally, in line with Heatherton and Baumeister's (1991) concept of "mental narrowing" or "low-level" thinking, which posits that binge eaters avoid meaningful thought, Berzonsky characterizes diffuse/avoiders as having a decreased ability to handle mental complexity which means they are unable to process identity information as effectively as do information-oriented individuals. Along the same lines, research indicates that diffuse/avoiders demonstrate less of a need for cognition, openness to ideas, and introspectiveness (Berzonsky, 1990). Lastly, Read, Adams, and Dobson (1984) found that diffusion status women were more likely to perceive themselves as making errors in judgement in social situations due to a narrow attentional focus, which could be seen as similar to binge eaters' and bulimics' cognitive rigidity and desire to reject broadly meaningful thought.

Thus, given the amount of literature on the diffuse/avoidance identity style that coincides with the multiple correlates of bulimic behavior, on the connections between bulimia and problems with identity issues, and given the centrality of the self in the escape model, it is hypothesized that the associations between variables as they are presented in Figure 2 will fit the data. The present study is an attempt to test the escape theory as proposed by Heatherton and Baumeister (1991), and to use their model to integrate the literature that has associated bulimia with identity development, social cognition, stress, and coping. Moreover, it is proposed that identity style will provide a link between avoidance coping strategies and bulimic behavior that has been neglected in previous research, and is necessary in order to appropriately test the escape theory.

It is expected that there will be positive correlations between all variables as they are associated in Figure 2. To expand upon previous research, however, the present study hypothesizes that the use of a diffuse/avoidant identity style will be positively correlated with bulimic behavior, and that the former will predict the latter independent of depression level.

It is important to note there is an alternative, competing model proposed by Polivy, Herman, and

McFarlane (1994). Although they agree that disordered eating is often induced by distress stemming from aversive self-awareness, they have found support for a “functional explanation” that proposes binge eating is not simply a consequence of a cognitive shift off of self and onto the salient stimuli in the environment (as escape theory posits), but rather that binge eating is purposeful. By purposeful Polivy et al. (1994) mean that bingeing serves as useful function for the individual; as bulimics can blame the distress (which actually induced the eating) on the fact that they are bingeing again, they manage to avoid attributing the distress to the fact that their ego has been threatened (e.g., that they are a failure). The bulimic behavior is a mechanism by which one avoids self-related distress as opposed to just being a result of “escaping the self”. In the same way, it may be that the bulimic behavior is useful for the purpose of evading meaningful thought about the self through the avoidance of confronting important identity issues. Accordingly, a second model is tested wherein it is expected there will be a direct link from depression to bulimic behavior, which in turn will be predictive of a diffuse/avoidance identity style.

## Method

### Participants

Participants were 193 female Canadian undergraduates who volunteered for the study, some of whom for which it fulfilled course requirements. The majority (59.6%) of participants were 19 or 20 years of age, with another 29.5% being 21 or 22, and the sample consisted mainly of first-or second-year (72%) and some third-year (18.7%) students. Most students’ (69.4%) academic majors were in the social sciences (e.g., Psychology, Family and Social Relations), but 16.6% were in the sciences, and 9.8% were in the arts. The sample was primarily North American (63.7%) and European (29%) in ethnic origin, but included 7 Asians, 3 South Americans, and 1 African. Finally, the students were asked the level of education obtained by each of their father and mother in order to assess socioeconomic status; more than half had fathers whose education was college or less (60.1%) and mothers whose education was college or less (70.2%), with 23.3% of fathers and 9.4% of mothers holding post graduate or professional degrees.

### Measures

Self-Consciousness. The Self-as-Target Questionnaire (SAT; Fenigstein, 1984) consists of eight scenarios about certain social events for which the subject must pick one of two alternatives of how they might think or act in that situation. The two choices for each question (e.g., “Your date asks to go home early. How likely is it that: ...”), include a self-relevant option (“your date does not want to spend any more time with you”) and nonself-relevant option (“your date is not feeling well”). Fenigstein (1984) found a significant positive relationship between public self-consciousness, which involves a disposition to direct attention toward the self, and an exaggerated tendency to perceive the self as the target of another’s behavior (i.e., choosing the self-relevant option). In a sample of college-aged students, Adams et al. (1978) found the SAT to have high reliability ( $\alpha = .79$ , odd-even  $r = .89$ ) and adequate concurrent validity with a behavioral estimate of perceiving oneself as target in a laboratory demonstration context ( $r = .59$ ,  $p < .05$ ).

The Self-Consciousness Scale (SCC; Fenigstein, Scheier, & Buss, 1975) contains 23 items that are rated on a scale for 0 (extremely uncharacteristic of self) to 4 (extremely characteristic of self). The SCS yields three factors: Public self-consciousness concerns an awareness of the reaction of others to the self (e.g., “I usually worry about making a good impression”); social anxiety is defined as discomfort in the presence of others (e.g., “I get embarrassed very easily”); and private self consciousness (e.g., “I’m alert to changes in my mood”). Two week test-retest reliability ranged from .73 to .84 (Fenigstein et al., 1975) and more recent research attests to the validity (construct, discriminant) of the subscales (see Nasby, 1989). For example, Nasby (1989) found private or public component of the self-schema, respectively.

Aversive self awareness. Two subscales of the Eating Disorder Inventory (EDI; Garner, Olmstead, & Polivy, 1983). measure self-awareness: perfectionism (EDI-P) and ineffectiveness (EDI-I).

The EDI-P includes 6 items assessing excessive personal achievement expectations (e.g., “My parents have expected excellence of me”), and the EDI-I includes 10 items assessing an external locus of control

orientation and negative self-evaluation (e.g., “I wish I were someone else”). The questions are rated on a 6-point scale from always to never. All of the subscales of the EDI have reliability coefficients above .80 (see Garner et al., 1983).

Depression. The 13-item Beck Depression Inventory-Short form (BDR-SF; Beck & Beck, 1972) was used to assess depressive symptomatology. Each item includes four alternative statements graded in severity from 0 - 3, and responses involve choosing the statement which characterizes their moods and behaviors (e.g., guilt, indecisiveness, self-harm, etc.). The BDI-SF correlates .96 with the total BDI and .61 with a clinical depth-of-depression rating (Beck & Beck, 1972). A high score indicates depression ( $\alpha = .78$ ).

Desire to escape. The Avoidance of Existential Confrontation Scale (AEC Scale; Thauberger & Sydiaha, 1977) measures the extent to which one is motivated to avoid confronting broadly meaningful issues. The scale consists of 36 items which relate to issues as failure, guilt, emptiness, meaninglessness, uncertainty, frustration, etc. Respondents rate themselves on seven-point scales, resulting in total scores ranging from 36 to 252. Examples of items include “There is (1) no purpose to life...(7) a purpose to life,” and “I am: (1) constantly facing myself...(7) not constantly facing myself.” Reliability indices range from .62 to .73 (odd-even), with a two-week test-retest correlational coefficient of .75. Several studies also indicate correlations between the AEC Scales neuroticism, and the use of drugs or alcohol (see Thauberger, Ruzinsky, & Cleland, 1981). The subscales are also relatively free of response style variances due to social desirability, acquiescence, and satiation.

Identity style. The third revised version of Berzonsky’s (personal communication, October 1997) Identity Style Inventory (ISI-3) has 40 items which measure the extent to which one adopts one of three identity styles towards, as well as assessing degree of commitment to, a set beliefs and values. The ISI-3 contains a 10 item diffuse/avoidant style scale (“I’m not really thinking about my future now; it’s still a long way off”): coefficient  $\alpha = .76$ . The respondent is asked to rate the degree that each statement is

“not at all like me” (1) to “very much like me” (5). Two-week interval test-retest coefficient for this scale is .83. Berzonsky (1992) found identity style to be predictive of coping strategies in late-adolescent college students, lending support for the inventory’s validity.

Bulimic behavior. The Bulimia Test-Revised (BUILT-R; Thelan, Farmer, Wonderlich, and Smith, 1991) is a 36 item (including eight fillers), multiple-choice scale measuring bulimia according to the DSM-III-R (American Psychiatric Association, 1987) criteria, but has been validated with the DSM-IV criteria as well (Thelan, Mintz & Vander Wal, 1996). The BUILT-R has high internal consistency ( $\alpha = .98$ ), construct validity ( $r = .99$ ) with the Binge Scale; Hawkins & Clement, 1980), high test-retest reliability ( $r = .95$ ) and good predictive ability as judged by raters two months after testing with a nonclinical population of college women (see Thalen et al., 1991).

### Procedure

Participants who volunteered for this study were told they would be asked to anonymously answer some questions about their eating patterns, decision-making processes, and attitudes about themselves and life in general. Group sessions were held where most participants filled out the battery of questionnaires. There were some instances where individuals who were not doing it to gain course credit were permitted to take home and return the package within a week. Subjects were given a debriefing form and were given the option to receive written feedback about the overall results at a later date.

### Results

A fully recursive model was used to test Heatherton and Baumeister’s (1991) escape theory of bulimic behavior using linear structural relations analysis (LISREL VIII; Jöreskog and Sörbom, 1993). The constructs in the escape theory include public self-consciousness, aversive self-awareness, depression, a desire to escape meaningful thought about the identity diffusion and bulimic behavior. The scales which were used to measure these theoretical variables are listed in Table 1 along with the number of items, their means, standard deviations, standard errors of the mean, and alpha coefficients. Six items

[Nos. 1, 4, 5, 11, 29] were removed from the AEC Scale in order to increase internal consistency. Any missing datum (maximum 5% per scale) was replaced with the scale mean.

Aversive self-awareness was measured using ineffectiveness scores as well as perfectionism scores on the EDI, but it was thought they might exert distinct influences on the other variables and thus these two measures were considered independently in the analysis. Also, the SAT scale was to be used as a second indicator variable measuring public self-consciousness, along with the SCU-PU (public self-consciousness subscale of the SCS), but its internal consistency was low ( $\alpha=.45$ ). Therefore, the SAT scale was removed from all subsequent analyses.

To begin, a correlation matrix was derived for the selected variables (see Table 2). The original, hypothesized model was then subjected to LISREL and the paths between variables that were retained ( $p < .05$ ) are presented in Figure 1 along with their respective standardized  $\beta$  weights. The nonsignificant chi-square value,  $\chi^2(11, N = 193) = 10.56, p = .48$ , indicates this model is plausible in the population. Furthermore, the goodness-of-fit index (a ratio of the sums of squares accounted for by the model to the total sums of squares of the estimated population matrix; Fassinger, 1987) is .985, which suggests that the model represents an acceptable fit to the sample data (a ratio of 1.0 constitutes an excellent fit).

As is evident in Figure 3, there was no significant link between a diffuse/avoidant identity style (processing orientation) and bulimic behavior which negates the central hypothesis of this study. However, the modification indices produced by LISREL suggested two paths that, if freed for estimation to examine other possible significant paths, might result in an improvement in the chi-square value. The first path involved diffuse/avoidant identity style (diff/av) and depression (the maximum modification index = 7.12), and the second involved diff/av and bulimic behavior (modification index = 7.02). Thus, it seemed as though there may be another, more plausible, model which would fit the data better and reduce the maximum modification index (to show that all possible significant paths between variables have been included). Furthermore, because Polivy et al. (1994) have alluded to an alternative to the escape model, the data were analyzed to see if in fact bulimic behavior is more likely a purposive mechanism for (or a

predictor of), avoiding self-identity issues (diff/av) rather than the converse (as originally hypothesized).

Thus, on theoretical grounds, the decision was made to create and test a second recursive model, which will subsequently be called the bulimia-as-purposeful model. This final model is diagramed in Figure 4 including significant path coefficients only. Once again, the chi-square value is nonsignificant,  $\chi^2(11, N = 193) = 10.66, p = .47$ , indicating the model accounts for the correlation matrix. The goodness-of-fit index, .984, also suggests the bulimia-as-purposeful model fits the sample data. Lastly, the maximum modification for this second model is 2.55 indicating it is likely that all possible significant paths were included.

Two main paths to bulimic behavior were revealed. Public self-consciousness, although having no link with depression as hypothesized, is connected to bulimic behavior directly ( $\beta = .21$ ). Public self-consciousness was also unexpectedly positively linked to the desire to escape (as measured by the AEC), but the AEC is no predictive of any other variable and thus does not have practical predictive value in the model. The second path suggested that perfectionism and a sense of ineffectiveness are predictive of higher scores for depression, or risk for depression ( $R^2 = .58$ ), which in turn may be a source of motivation to engage in bulimic behaviors ( $R^2 = .40$ ).

Importantly for the purpose of this study, a diffuse/avoidant identity style seems to be a manifestation of bulimic behavior rather than a contributing factor. Those who demonstrate bulimic behaviors along with depressive symptoms, perfectionism, and a sense of ineffectiveness are more likely to employ an avoidant processing orientation when it comes to identity related issues. Individuals with a diffuse/avoidant identity style are also less likely to be perfectionists.

### Discussion

The escape model proposed by Heatherton and Baumeister (1991) is not supported by the results of the present study. Although aversive self-awareness (perfectionism along with feelings of ineffectiveness) and depressive affect contribute the manifestation of bulimic behavior, this relationship is neither mediated by a desire to escape meaningful thought (AEC Scale), nor an avoidance of dealing

with issues related to the self (i.e., a diffuse/avoidant identity style). While results do lend support for previous findings suggesting eating disordered behaviors as an escape from negative affect or depressive symptoms (see Beebee, 1994; Elmore & Decastro, 1990), bulimic behavior as an “escape from self” was not evident in this sample. There was no indication that the disinhibition associated with binge eating is a consequence of wanting to avoid meaningful thought about ongoing identity on a broader level; thus there is no support for the notion that there is a similar motivated shift in awareness off of self and onto food that triggers binge eating.

Contrarily, according to the bulimia-as-purpose model presented, bulimic behavior seems to serve as a mechanism by which university-aged females may try to “escape the self” and avoid confronting important identity issues. Thus, in line with what Polivy et al. (1994) have termed the “functional explanation” of binge eating, the distress-induced eating may be purposeful; they posit this overeating serves to counteract the distress (which is related to aversive self-awareness). Moreover, what Polivy et al. propose is that binge eating is used as something to which one can attribute the distress (e.g., blaming it on having broken one’s diet) rather than forcing oneself to admit that the distress is due to a threatened ego. In the same way, the results of the present study can be interpreted so to explain bulimic behavior as useful to the individual, but instead, specifically for the purpose of eluding the admission of distress associated with not knowing the answer to the question “who am I”? (i.e., having a diffuse identity).

Importantly, the two models presented in this study - the escape model and the bulimia-as-purposeful-model have many similarities in terms of how the manifestations of bulimia might come about. First, perfectionistic standards and the sense that one is unable to meet them (ineffectiveness) both contribute to a large proportion of the variance in depression scores, which is supportive of the notion this form of aversive self-awareness is the source of the distress found in eating disordered samples (Heatherton & Baumeister, 1991; Garner et al., 1983).

Second, consistent with Shatford and Evans’ (1986) causal model of bulimia, and of Paxton and Diggins’ (1997) findings, depression seems to be a predictor of bulimic behavior rather than a

manifestation thereof, as other research suggests (see Beebee, 1994). However, in contrast to both of these studies' findings that the influence of distress on bulimic behavior is mediated by avoidance coping strategies, the present study found that depression is directly linked to bulimic behavior. The reason for the discrepancy may be that the present study specifically investigated the use of avoidance and escapist responses with respect to thoughts about broadly meaningful issues and about one's identity.

Nonetheless, what the results of this study do suggest is that the bulimic behavior itself is the means to avoid self-related stress or distress (i.e., the behavior is the escape itself), rather than there being a general tendency to use avoidance or escape coping strategies which then predisposes individuals to engage in bulimic behavior. This may also be the reason why the research on whether bulimics are more likely to employ escape or avoidant coping strategies has been equivocal. Certainly though, as a recursive model was used in this study (as in Shatford & Evans, 1986), more research is necessary for delineating whether there is a reciprocal relationship between coping responses and bulimic episodes (Cattanach & Rodin, 1989).

Third, both models in this study emphasize the role of public self-consciousness in bulimic behavior. High public self-consciousness seems to have a direct influence on bulimic behavior rather than moderating the effect of aversive self-awareness on depression scores, as was hypothesized. This is only partly consistent with Baumeister's (1991) view that public self-consciousness is a major calamity, or burden for them; contrary to the escape model, it was found that the binge behavior is not dependent upon an escape from this unpleasant state of self-consciousness. It may be that bulimics remain quite self-conscious during the binge, but it is also important to note that there may be a connection between the escape from meaningful thought (AEC; that was found to be predictable by public self-consciousness) and bulimic behavior, but it was simply not apparent in this study because of the psychometric qualities of the AEC scale. Although the AEC scale should be removed from the model for a more parsimonious explanation in future research (as it did not hold any predictive value), this indirect pathway that might suggest bingeing as a consequence of escape from public self-consciousness could be examined further.

On the other hand, as mentioned above, the bulimic behavior may be the escape itself, and these intermediate variables cannot demonstrate this notion.

Nevertheless, the bulimia-as-purposeful model may have specific potential for exploring the subtlety of a relationship that potentially exists between bulimic behavior and identity. It presents a viable approach to understanding how bulimia is related to the process of forming an identity, that is fundamentally occurring on a daily basis in young adulthood.

The investigation of identity style (one's processing orientation for exploring, or avoiding exploration of, certain values and beliefs one will use to define the self) and its link to bulimia is unique to this study, but it is supportive of other studies that suggest bulimics are more diffused in terms of identity status (Sparks, 1992), that they are more confused in terms of their identities and perceive themselves as more enmeshed with others (Schupak-Neuberg & Nemeroff, 1993), and that they have more difficulty with separation-individuation from parents (e.g. Smolak & Levine, 1993). It also lends insight as to why the incidence of bulimia is so high in university-aged females and decreases later in life as it has a direct relationship with (i.e., is perhaps a mechanism used to cope with) the heightened psychosocial pressure to form one's identity in young adulthood.

As identity diffusion (as a result of stalling or evading that crucial questioning period) has been related to other forms of escape behavior patterns (e.g., substance abuse), depression, anxiety (see Berzonsky, 1990; Nurmi et al., 1996), a lower capacity for intimacy, and a higher public self-consciousness (Adams et al., 1987), among other negative adjustment measures, the possibility that it may be an outcome of this process in late adolescent females has important implications. Given the potentiality for future distress, the bulimia-as-purposeful model may lead to future studies that find diffuse/avoidant identity style to be consequential in the exacerbation of bulimic symptoms and the perpetuation of the disorder. It is also likely that future research would find that identity style is in some way directly associated with both bulimic behavior and other escape strategies (e.g., alcohol abuse) which

are often co-morbidly occurring clinical symptoms.

Moreover, one may be reluctant to see the bulimia-as-purposeful model as successfully demonstrating bulimic behavior as the mechanism that is being used in order to avoid the task of identity exploration, even though it was found to mediate the relationship between depression (distress from aversive self-awareness) and bulimic behavior. Indeed, at the same time as suggesting that the binge eating may be instrumental for the individual (i.e., for something to blame the distress on so she can avoid admitting it is due to important self-issues, and subsequently admitting she is lacking a solid sense of identity), it is unclear whether the model tested in this study is the best way to examine this hypothesis. Perhaps it would be appropriate for future path analytic research to also incorporate the measurement of distress that seems to go hand with engaging in bulimic behavior to see if that is being affected as a result of, or is being affected by, a diffuse/avoidant identity style. In turn, it is also likely that employing a diffuse/avoidant identity style is affected by more than just the bulimic behavior that was found to predict it in this study. As mentioned before, and to examine possible reciprocal paths between the variables in question.

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Disorders, 20, (2), 169-176.

Table 1  
Number of items, mean, standard error of the mean, standard deviation, and alpha coefficient for each observed measure.

| <b>Observed variables</b>                  | <b>No. items</b> | <b>Mean</b> | <b>SE</b> | <b>SD</b> | <b><math>\alpha</math></b> |
|--|------------------|-------------|-----------|-----------|----------------------------|
| Public Self-consciousness                  | 7                | 18.9        | .4        | 5.0       | .83                        |
| EDI-Perfectionism                          | 6                | 6.3         | .3        | 4.2       | .77                        |
| EDI-Ineffectiveness                        | 10               | 2.3         | .3        | 3.9       | .89                        |
| Depression                                 | 13               | 4.3         | .3        | 4.7       | .86                        |
| AEC-Escaping meaningful<br>thought         | 30               | 139.5       | 1.1       | 15.2      | .66                        |
| Diffuse/Avoidant Identity Style<br>BUILT-R | 28               | 50.2        | 1.5       | 20.2      | .95                        |

Note: EDI= Eating Disorder Inventory; AEC = Avoidance of Existential Confrontation Scale; BUILT-R = Bulimia Test-Revised

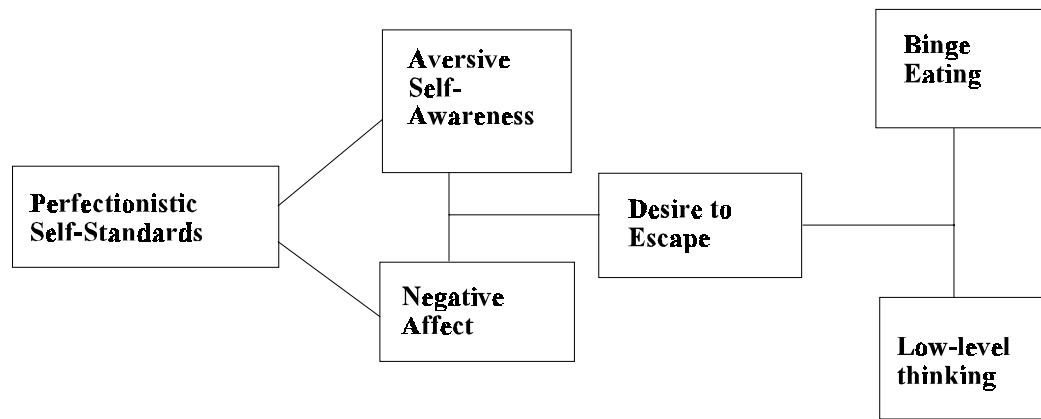
Table 2

Correlation matrix of all scales used in path analysis

|        | AEC    | BULIT  | DEP    | DIF/AV | INEFF  | PERF   | PU-SC |
|--------|--------|--------|--------|--------|--------|--------|-------|
| AEC    | 1.000  |        |        |        |        |        |       |
| BULIT  | .124   | 1.000  |        |        |        |        |       |
| DEP    | .190** | .608** | 1.000  |        |        |        |       |
| DIF/AV | .098   | .169*  | .167   | 1.000  |        |        |       |
| INEFF  | .155   | .526** | .751** | .149*  | 1.000  |        |       |
| PERF   | .102   | .206** | .227** | -.092  | .156   | 1.000  |       |
| PU-SC  | .291** | .366** | .296** | .036   | .298** | .230** | 1.000 |

\*\*. $p < 0.01$ ; \*. $p < 0.05$  (2-tailed). Note: AEC = Avoidance of Existential Confrontation Scale;

BUILT = Bulimia Test - Revised; DEP = Beck Depression Inventory -Short form; DIF/AV =Diffuse/Avoidant Identity Style Inventory; INEFF = Ineffectiveness scale of Eating Disorder Inventory (EDI); PERF= Perfectionism scale of EDI; PU-SC = Public Self-Consciousness Scale



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Figure 1. Escape Theory (Heatherton & Baumeister, 1991; [Adapted from Beebe, 1994])

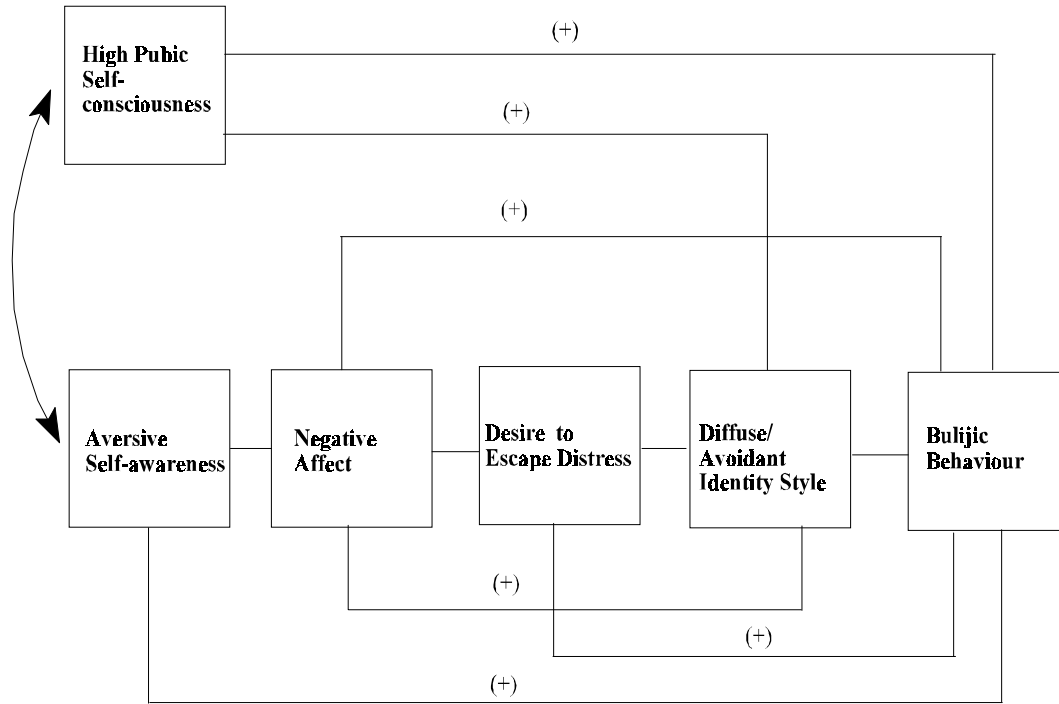


Figure 2. Hypothesized model for the present study.