Self-Esteem, Restraint, and Eating Behavior

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The mediating influence of self-esteem on disinhibited eating was assessed in restrained and unrestrained subjects. Self-esteem was unrelated to the eating behavior of unrestrained subjects following a preload, but did moderate the disinhibitory effects of a preload on restrained subjects. Specifically, only those restrained subjects with low self-esteem displayed disinhibited eating after a preload. Theoretical and practical implications of this finding were discussed.
spectations would likewise apply particularly to restrained subjects, for whom the maintenance of restraint is a matter of personal concern, but would not apply to unrestrained individuals, who are not even trying to inhibit their intake.

Method

Subjects

Seventy-eight female undergraduates participated in the study as part of an introductory psychology course. Subjects were recruited for what they thought was a taste perception experiment. Subjects came to the laboratory between 11:30 a.m. and 6:30 p.m. and were asked not to eat or drink for 2 h before the study.

Upon arrival, subjects completed a medical screening form to allow us to eliminate any who were allergic to ice cream. None were eliminated. After they had completed the eating phase of the experiment, subjects were given a series of questionnaires, including the Revised Restraint Scale (Polivy et al., in press) and a version of the Janis-Field Self-Esteem Scale modified to include a Physical Attractiveness subscale (Pliner, 1986) so that we might classify them in terms of restraint and self-esteem. After approximately three quarters of the subjects had been run, these data were examined and it was apparent that there was an imbalance in subjects’ self-esteem scores such that there were too many low-self-esteem restrained and too few low-self-esteem unrestrained subjects. To correct this, the last 12 subjects were selected from a larger introductory psychology course pool that had already filled out the Restraint and Self-Esteem Scales, so that the unbalanced cells could be filled more equally. Accordingly, the experimenter was aware of the restraint status of these 12 subjects ahead of time, although he did not actually know each subject’s self-esteem level.

Procedure

Subjects arrived at the laboratory individually and were given an informed consent form to sign, as well as the medical screening questionnaire. They were then told that the experiment involved the effects of temperature on taste perception, and were randomly assigned to either the control or the cold mouth condition. The “cold mouth” was allegedly achieved by having the subjects all drink an equal amount of a cold liquid, a freshly made 15-oz chocolate milkshake, the preload. Half of the subjects were preloaded and half were in the no-preload (control) condition. Next, all subjects were given three large bowls containing approximately 900 g of ice cream each, mounded and lumped so that it was evident that self-esteem did not moderate the behavior of unrestrained subjects, F(1, 70) = 3.74, p < .057, replicating the usual “counterregulation” effect in which restrained subjects eat more after a preload than if not preloaded, while unrestrained subjects do the reverse. The counterregulation effect, in turn, was qualified by a marginally significant second-order interaction, F(1, 70) = 3.74, p < .057, involving all three factors. Examination of Table 1 indicates that self-esteem did not moderate the behavior of unrestrained subjects, who ate less following the preload regardless of self-esteem. Restrained subjects, however, responded to the preload differently depending on self-esteem; Low-self-esteem restrained subjects showed the usual disinhibition effect, whereas high-self-esteem restrained subjects actually ate slightly less after the preload. Analysis of the restrained subjects alone yielded a marginally significant interaction between self-esteem and preload, F(1, 70) = 3.90, p < .056. Although high-self-esteem subjects did not eat significantly differently as a function of the preload, low-self-esteem subjects ate significantly more after the milkshake preload than did those who had not been preloaded, t(70) = 2.88, p < .01. 

Discussion

As predicted, self-esteem was a potent mediator of the eating behavior of restrained subjects. Although the interaction be-
between self-esteem and preload was not quite significant for the restrained subjects alone, it is clear that the low-self-esteem subjects carried the counterregulation effect. Low-self-esteem restrained subjects were the only ones to show the traditional counterregulatory response, eating more after a preload than after none. Those restrained subjects with high-self-esteem ate about the same amount regardless of whether they had been preloaded or not, exhibiting a nonsignificant decrease in intake following the milkshake. All unrestrained subjects, regardless of self-esteem level, showed normal compensation, eating less when preloaded than when not preloaded.

Despite the marked difference in the behavior of high- and low-self-esteem restrained subjects, the usual significant interaction between restraint and preload was also found. Obviously, the counterregulatory behavior of the low-self-esteem restrained subjects was sufficiently robust to produce the interaction even though a large number of high-self-esteem restrained subjects were not counterregulating. It seems likely that in previous research in the counterregulation paradigm, the effect was caused primarily by low-self-esteem dieters who comprise the majority of the dieting population. (Despite our attempts to equalize cell means toward the end of the study, there were still more low-self-esteem restrained subjects than either low-self-esteem unrestrained subjects or high-self-esteem restrained subjects; self-esteem was significantly lower in the restrained than in unrestrained subjects, t(76) = 2.49, p < .02, and r(76) = -.316, p < .01. The overrepresentation of low-self-esteem restrained subjects did not distort the analysis of variance because restraint and self-esteem were treated as independent variables.

If high self-esteem in restrained subjects is associated with less disinhibited eating, it is possible that increasing the self-esteem or confidence of dieters might serve to protect them to some extent from the excessive eating induced by stress or other disinhibitors. Conversely, it seems likely that repeated dietary "failures" or episodes of disinhibition will take their toll on the self-esteem of some dieters. Because the present results are essentially correlational evidence of the association between self-esteem and disinhibitory tendency, one cannot comfortably draw causal conclusions. It is possible to speculate about potential causal mechanisms, however. For example, an episode of disinhibited eating might thus lower a dieter's self-esteem, making the dieter more susceptible to disinhibited eating in the future, in a self-perpetuating spiral. Such a spiral may provide at least part of the mechanism by which dieting contributes to bingeing (Polivy & Herman, 1985), and, in some particularly susceptible individuals, to the ultimate development of a true eating disorder, characterized in part by extremely low self-esteem (e.g., Garner, et al., 1983). People with low-self esteem who undertake dieting—often, ironically, in an attempt to raise their self-esteem—may find themselves worse off than if they had not attempted to improve themselves.

References


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