

THE THREE-FACTOR EATING QUESTIONNAIRE TO MEASURE DIETARY RESTRAINT, DISINHIBITION AND HUNGER

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Abstract—This report describes the construction of a questionnaire to measure three dimensions of human eating behavior. The first step was a collation of items from two existing questionnaires that measure the related concepts of 'restrained eating' and 'latent obesity', to which were added items newly written to elucidate these concepts. This version was administered to several populations selected to include persons who exhibited the spectrum from extreme dietary restraint to extreme lack of restraint. The resulting responses were factor analyzed and the resulting factor structure was used to revise the questionnaire. This process was then repeated: administration of the revised questionnaire to groups representing extremes of dietary restraint, factor analysis of the results and questionnaire revision. Three stable factors emerged: (1) 'cognitive restraint of eating', (2) 'disinhibition' and (3) 'hunger'. The new 51-item questionnaire measuring these factors is presented.

THIS report describes the construction of a questionnaire to measure three dimensions of human eating behavior. Our current understanding of this behavior was greatly advanced by Herman's concept of 'restrained eating'—the tendency of some persons to restrict their food intake in order to control their body weight [7, 9]. Restrained eating has been assessed by a 10-item Restraint Scale that has predicted food intake in response to three kinds of stimuli: (a) preloads of food, (b) the ingestion of alcohol and (c) dysphoric emotions.

(a) After consuming a milkshake, many persons, quite understandably, eat less of a subsequent test food. Restrained eaters, selected by their responses on Herman's Restraint Scale, however, behaved very differently. After consuming a milkshake, they ate more of a test meal! This paradoxical behavior, termed 'counter-regulation' by Herman, has been reported several times among persons of normal weight and constitutes the most robust finding of this research [7, 9, 10, 25, 26].

(b) The idea that 'counter-regulation' by restrained eaters represented a form of disinhibition was explored with the use of a classic disinhibitor—alcohol. Under appropriate circumstances, the ingestion of alcohol increased the food intake of restrained—but not of unrestrained—eaters [19, 20].

(c) Other potential disinhibitors of self-control are dysphoric emotions, and the effects of depression and anxiety on restrained eaters supported the theory. When depressed, restrained eaters gained weight, whereas unrestrained eaters lost weight [18, 36]. Similarly, when anxious, restrained eaters ate more while unrestrained eaters ate less [8].

On the basis of such findings, Hibscher and Herman proposed that the 'obese' characteristics of obese persons arise from their dieting and not their obesity [10]

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and are more common among obese people simply because they diet more often. This proposal was supported by four studies that showed a high correlation between scores on the Restraint Scale and severity of overweight [3, 10, 13, 34]. Further study of obese persons, however, revealed serious problems with both the predictive validity and construct validity of the Restraint Scale.

The first problem was the failure of the Restraint Scale to predict the behavior of obese persons, even that most robust of findings, overeating following a preload. Four studies showed that obese persons who scored high on the Restraint Scale did *not* overeat following a preload [10, 25, 26, 28], and one study showed that they actually ate less [25]. These findings greatly decreased a major attraction of the Restraint Scale—the hope that it could separate degree of overweight from extent of dieting.

The second problem with the Restraint Scale lies in its construct validity. Four psychometric studies have revealed that the Restraint Scale measures not only the dietary restraint that was its intent, but also a very different construct—weight fluctuation (in pounds) [1, 3, 12, 14]. Weight fluctuation is a function of obesity and is highly correlated with percentage overweight [2]. In theory, the correlation of percentage overweight with the Restraint Scale could be due to nothing more than its weight fluctuation factor. In fact, this is precisely what occurs. Drewnowski *et al.* showed that no more than two of its weight fluctuation items accounted for 70% of the variance in total scores on the Restraint Scale; obese persons actually scored lower on the dietary concern factor.

The construct validity of the Restraint Scale for obese persons is confounded not only by the weight fluctuation factor but also by the response style of social desirability. Two studies showed that scores on a social desirability scale correlated significantly with scores on the Restraint Scale for obese persons but not for persons of normal weight [12, 25]. Attempts to appear socially desirable may distort the restraint scores of obese persons.

Obesity has not been the only problem to afflict the Restraint Scale. Attempts to reassess the earlier work on weight change during depression in the light of the two-factor structure led to conflicting results. A study by Frost *et al.* indicated that the weight fluctuation factor was a better predictor of food intake during an experimentally-induced depressed mood than was the dietary restraint factor [4]. Ruderman, on the other hand, found precisely the opposite [24]. Clearly serious problems afflict the Restraint Scale. The problems, however, are with the scale, not with the concept. For example, a single question about dietary restraint was sufficient to distinguish obese persons who overate in a fast food shop from those who did not, even though the question did not distinguish among persons of normal weight [32].

While Herman and his colleagues were studying restrained eating, primarily by persons of normal weight, a German group, working with obese as well as nonobese persons, developed a similar concept—‘latent obesity’—and a scale to measure it [21, 22]. Meyer and Pudel [17] found that the rate of consumption of a 20-min test meal differentiated obese from non-obese persons. The rate of eating by non-obese people slowed during the meal while that of obese persons did not, suggesting an impairment of satiety. This neat distinction between obese and non-obese persons was blurred, however, by the discovery of a group of nonobese persons whose rate of eating also did not slow during the meal. Pudel suggested that these persons

might be 'latent obese'—biologically programmed to be obese but able to maintain a normal body weight by consciously restricting their food intake [22]. To investigate this possibility, he constructed a 40-item questionnaire that proved successful in identifying persons of normal weight who failed to slow their rate of eating during a meal [23].

Although the latent obesity questionnaire was constructed from a population that included obese persons, it is limited both theoretically and practically. The concept of restrained eating implies two independently varying dimensions of restraint vs nonrestraint and obesity vs nonobesity; whereas the concept of latent obesity implies either an intermediate range on the obesity–nonobesity dimension or a confounding of the two dimensions. The latent obesity questionnaire thus cannot address the important group of restrained obese. Furthermore, the questionnaire has not been applied beyond the narrow limits of one form of laboratory experiment.

Problems with both the Restraint Scale and the Latent Obesity Questionnaire call for a new instrument to measure restrained eating and related issues. We describe here the construction of this instrument. A more detailed description is provided elsewhere [31].

METHOD

Initial item pool

Questionnaire items were derived initially from three sources: (a) Herman and Polivy's Revised Restraint Scale (10 items) [9]; (b) Pudel's Latent Obesity Questionnaire [23] repeatedly translated and back-translated in consultation with Dr. Prudel (40 items); and (c) seventeen newly written items based on clinical experience.

Initial subjects

The initial sample of study participants was recruited so as to ensure extensive variability with respect to restraint in eating. Individuals were chosen who, on *a priori* grounds, should be either very restrained or very unrestrained eaters, as well as others intermediate between these extremes. The group selected as restrained eaters or 'dieters' consisted of 18 male and 60 female members of a weight reduction group notable for its severity and evangelical character. About half of these participants were of normal weight at the time of testing while half were still obese; all had lost large amounts of weight.

Unrestrained eaters were selected by the members of the weight reduction program, a group which is presumably unusually sensitive to the lack of dietary restraint. Each member of the group solicited the participation of the single most free-eating nonobese persons of his or her acquaintance. By this means, 62 unrestrained or free eaters were selected—22 males and 40 females.

Bias in the psychometric analysis of extreme groups was offset by selection of an intermediate sample consisting of 57 males and 23 females chosen by members of the weight reduction program on the basis of geographic proximity to their homes. By virtue of its geographic proximity, this intermediate group of 'neighbours' possessed demographic characteristics similar to the two extreme groups. In addition, two ancillary samples were drawn consisting of 52 female members of a community service organization and 28 members of a university adult education class (7 males and 21 females).

Procedure

Three copies of the initial 67-item questionnaire were distributed to each of the members of the weight reduction program (one for the member—the dieter—one for the selected free eater, and one for the selected neighbor). The ages of these 220 persons (97 men and 123 women) in the combined sample ranged from 17 to 77 years with a mean of 44 and a standard deviation of 12.8.

ANALYSES AND RESULTS

Initial questionnaire analysis and results

Factor analysis of the initial item pool. Product-moment correlation coefficients were computed among the 67 questionnaire items for the combined sample of the 200 cases. The resulting intercorrelation matrix, with squared multiple correlations

inserted as communality estimates in the main diagonal, was factor analyzed by the method of principal axes; the mean squared multiple correlation was 0.59 (trace = 39.73). An examination of the latent roots revealed three salient factors.

These three factors were rotated in orthogonal simple structure by the varimax procedure and to oblique simple structure by the DAPPFR method [33]. The result was twenty items clearly associated with Factor I, 19 items with Factor II, and 20 with Factor III. Examination of the items revealed that Factor I involved behavioral restraint, particularly conscious control of eating behavior. Factor II reflected lability in both behavior and weight, and Factor III hunger and its behavior ramifications.

Initial scale reliabilities and intercorrelations. Scale reliabilities for internal consistency were calculated in two ways—once by scoring response options in terms of the weight given in the item format (i.e. 0–5, 1–4, etc.) and once by scoring all items dichotomously. These calculations yielded similar coefficient alphas for the two scoring methods. Since dichotomous scoring avoids the problem of multiple-response items contributing more than True–False items to scale variance, dichotomous scores were used throughout the remaining analyses. For this purpose, a median split was used.

On the combined sample, coefficient alpha reliabilities were 0.90 for Factor I (20 items), 0.87 for Factor II (19 items), and 0.82 for Factor III (20 items). Factor I correlated 0.60 with Factor II and 0.37 with Factor III while Factors II and III correlated 0.63.

Since the questionnaire is to be used to study individuals as well as to detect group differences, we attempted to ascertain adequate scale homogeneity and independence within groups as well as for the combined sample. Accordingly, we assessed the coefficient alphas and intercorrelations for the three subsamples separately and for the two ancillary samples not used in scale derivation. The reliabilities were almost as high for the three subsamples separately as for the combined sample, suggesting that the factors capitalize very little on between-group consistencies. Furthermore, high reliabilities in each group indicated considerable within-group consistency. The same level and pattern of reliabilities occurred in the two ancillary samples, showing that scale homogeneity could be generalized to groups not employed in scale derivation.

In contrast to the relative consistency of reliabilities across the subject groups, the pattern of scale intercorrelations varied widely, and significant differences in correlation coefficients occurred between groups. For example, among dieters, the more the reported control (Factor I), the less the lability (Factor II); however, the greater the perceived hunger (Factor III), the more the lability. In contrast, among free eaters, the more control the more lability. The (female) members of the community service organization, as befits a diet-conscious society, appeared similar to the dieters both in correlational pattern and in mean scores.

Such differential interpretation of correlational patterns among the scale scores assumes that the factors have the same meaning in the various groups. To investigate this possibility, separate factor analyses were undertaken for each of the three subgroups (dieters, free eaters and neighbors) to see if comparable structures would emerge.

Factor analysis of the neighbors subgroup ($n = 80$) revealed three salient factors

which, in the varimax position, replicated the factor structure of the combined sample quite well. Factor analysis of the dieters subgroup ($n = 78$) also revealed three salient factors which replicated the combined-group factor structure, although not quite as well. In contrast, factor analysis of the free eaters subgroup ($n = 62$) revealed four salient factors. Three matched the three factors of the combined sample, but five of six items on the hunger factor coalesced to define a small fourth factor suggestive of indifference to eating. Free eaters scoring high on this factor indicated that eating was a matter of relative indifference to them, that they often skip meals, frequently leave something on their plate in a restaurant, often stop eating when really full and cannot eat without being really hungry. Evidently some free eaters, who apparently eat whatever they want whenever they want, do not want to eat very much very often.

To complete the investigation of subsample factor structures, separate factor analyses were conducted for men and for women. The factor analysis for men ($n = 97$) revealed three salient factors which replicated the factor structure of the combined sample very well. The factor analysis for women ($n = 123$) revealed two large factors which replicated the combined structure of the conscious control and hunger factors very well and one small factor which replicated the lability factor somewhat less well. Evidently Factors I and III were quite robust; Factor II was somewhat less so.

Scale correlations with weight and background variables. In the combined sample all three of the factor scales correlated $p < 0.01$ with current weight; the correlation coefficients for Factor I, II and III being, respectively, 0.20, 0.53 and 0.21. The substantial correlation between Factor II and weight was carried by 18 of its 19 items. Thus the problem posed for the Herman Restraint Scale by the four weight fluctuation items was very greatly reduced for Factor II. The impact of overweight, determined by holding height constant, was even greater than that of weight alone, yielding partial correlation coefficients of 0.42, 0.60 and 0.34 for Factors I, II and III, respectively. The weight correlations with Factors I and III derived primarily from their association with Factor II; when both Factor II and height were held constant, the partial correlations fell to nonsignificance for both scales.

Statistically significant correlations were also obtained between the respondent's sex and both Factor I (0.31, $p < 0.01$) and Factor III (0.14, $p < 0.05$); women scored significantly higher than men on these scales. These correlations with sex were substantially reduced, however, when height was partialled out, eliminating the effect of the shorter height of women. The resulting partial correlations were 0.18 ($p < 0.05$) and 0.07 (p NS) for Factors I and III, respectively. Clearly, sex differences in Factor scores must be interpreted cautiously in the absence of controls for other sex discriminators such as height.

Revised questionnaire analysis and results

The interpretation of the provisional factor scales served as rational guides for item revision and new item development. By appraising the degree to which items rationally devised to represent particular factors actually related to those factors, analysis of the revised questionnaire constituted thus not just a replication, but also an experimental test of the construct theory [11]. For each factor, new items were written to conform to the tentative rationale and, at the same time, to heighten the distinctiveness of each factor *vis-à-vis* the other two.

Factor I was now interpreted as 'cognitive control of eating behavior' and Factor III as 'susceptibility to hunger'. The interpretation of Factor II, however, changed from an original emphasis on lability of both body weight and of eating behavior. Since disinhibition of cognitive control of eating may underlie both kinds of lability, Factor II was now explicitly reformulated as 'disinhibition of control'.

In addition to several new items written to these specifications, several items that originally loaded substantially on two factors were revised in two forms to sharpen the distinction between the factors. For example, 'I frequently stop eating when I am not really full' was revised for Factor I as 'I often stop eating when I am not really full as a conscious means of limiting the amount that I eat', and for Factor III as 'I am always hungry so it is hard for me to stop eating before I finish the food on my plate'.

A revised questionnaire consisting of 93 unchanged, modified, and newly written items was administered to a second sample of 53 (seven men and 46 women) participants in the same evangelical weight program as well as to 45 (five men, 13 women and 27 who did not record sex) free eaters, nominated by the dieters in the manner described previously. The revised questionnaire discriminated very well between the two new subgroups of dieters and free eaters.

Multiple item analysis of the provisional scales. Since the revised item pool contained several items in multiple versions which might have generated spurious factors, the items were first evaluated by means of multiple item analysis. Since the three factors were correlated with each other to varying degrees, partial correlations were computed for each item with its own provisional factor, holding constant the other two scales. Significant partial correlations resulted in retention of 23 items for Factor I, 20 items for Factor II, and 15 items for Factor III. This 58 item questionnaire was published in 1981 by Stunkard and has been in use since that time [29].

Scale reliabilities and intercorrelations of 58-item questionnaire. Coefficient alpha reliabilities were even higher than on the original three factors: 0.92 for conscious control, 0.91 for disinhibition, and 0.85 for perceived hunger. At the same time, factor interdependence was markedly reduced: intercorrelations fell to 0.43 between I and II, -0.03 between I and III, and 0.42 between II and III. Furthermore, the reliabilities of these refined factors were much more stable in the subsamples than were the original factor scales.

Among dieters and free eaters, respectively, the reliability of Factor I was 0.79 and 0.92, the reliability of Factor II 0.84 and 0.84, and the reliability of Factor III 0.84 and 0.87. Among dieters, the scale intercorrelations were -0.43 between I and II, -0.13 between I and III, and 0.38 between II and III, which is consistent with the pattern for the original factor scales among the first sample of dieters. Among free eaters, the scale intercorrelations were 0.22 between I and II, -0.05 between I and III, and 0.72 between II and III, a pattern similar to that in the original sample of unrestrained eaters, except for the high correlations between scales II and III. This high correlation indicates a tendency for scales II and III to coalesce among the unrestrained eaters, suggesting that the underlying factor structure is somewhat different in this group, a possibility addressed in the next section.

Final scale analysis and results

A factor analysis of the 58 purified items was undertaken, with the second

combined sample of 98 cases. Correlation coefficients were computed for these items, and the resulting correlation matrix was factor analyzed by the method of principal axes. Three salient factors were obtained and subjected to varimax rotation. With only three exceptions, each item was found to load highest on its designated factor. Eliminating these three items, the factor analysis was redone on the 55 remaining items. Again, three salient factors were obtained: Factor I reflected conscious mechanisms for restraining food intake. Factor II involved a variety of disinhibitors. The four weight lability items still loaded on the reformulated Factor II, but no longer as a core characteristic of that construct. Factor III reflected feelings of hunger and its behavioral consequences.

Again, factor structures were determined for each of the two new subgroups—dieters and free eaters. And again, factor analysis of the 55 items on the final three scales for dieters ($n=53$) revealed the same three salient factors which, in the varimax position, matched the rationally predicted factor structure almost as well as in the combined sample. The factor analysis conducted on free eaters ($n=45$), however, once again revealed two large factors and two smaller ones. The conscious control factor closely matched the first factor found in the combined sample. The other large factor matched the original hunger factor (III), but included 11 disinhibition items. The fact that 11 items from the hunger scale and 11 disinhibition items loaded substantially on this common factor explains the high correlation between the two scales among the free eaters.

The two smaller factors among free eaters were defined largely by the remaining disinhibition items. One reflected eating excesses, the other weight fluctuation. The free eaters, as predicted, showed only small amounts of control on Factor I. With prior control (or inhibition) low, it is not surprising that a *disinhibition* scale should lack coherence in such a group and fragment into smaller more specific subparts. This emergence of the four factors, it should be noted, replicated the prior finding of four factors in the first sample of free eaters.

Final scale reliabilities and intercorrelations. Final scale reliabilities and intercorrelations are given in Table I for the second combined sample and for the two subsamples of dieters and free eaters, along with mean scores and standard deviations for each of the three groups. Scales I and II each discriminate significantly between dieters and free eaters in the second sample beyond the 0.001 level, while the difference

TABLE I.—RELIABILITIES AND INTERCORRELATIONS AMONG FINAL FACTOR SCALES FOR TWO SUBJECT GROUPS

Group	Combined $n=98$			Dieters $n=53$			Free eaters $n=45$		
	I	II	III	I	II	III	I	II	III
Scale									
(20 items) I									
(20 items) II	0.43*			-0.45*			0.19		
(15 items) III	-0.04	0.40*		-0.10	0.36*		-0.06	0.73*	
Mean	10.5	10.0	7.1	14.3	13.8	7.2	6.0	5.6	7.0
Standard Deviation	6.2	5.9	4.1	3.6	4.2	3.9	5.5	4.3	4.3
α	0.93	0.91	0.85	0.79	0.84	0.83	0.92	0.84	0.87

* $p < 0.01$.

between the two groups on scale III is nonsignificant. The final scale reliabilities in the combined group, as well as in the two subgroups, are considerably higher than the reliabilities of the initial factor scales among the corresponding groups in the original sample.

Table I shows that once again the pattern of intercorrelations among the three scales differs for the two subgroups. The correlation between Factors I and II among dieters (-0.45) differs significantly ($p < 0.01$) from that among free eaters (0.19) as does the correlation between Factors II and III among dieters and free eaters (0.36 vs 0.73). The correlational pattern for dieters is quite similar to that in the first sample; strong restrainers on Factor I tend to exhibit less disinhibition, while restrainers susceptible to feelings of hunger display more disinhibition. The pattern for free eaters is also similar to that found in the first sample, except for the high correlation between Factors II and III. The striking aspect of this pattern is that Factors II and III covary in independence of Factor I, suggesting that disinhibition and hunger go hand in hand among free eaters. *Disinhibition* implies some prior inhibition, and free eaters expressed little inhibition on Factor I. It seems likely therefore, that much of their eating behavior reported on Factor II results primarily from need satisfaction and not from disinhibition.

The final step in the construction of the questionnaire was elimination of the four weight fluctuation items from Factor II. Drewnowski's [3] demonstration of their inordinate influence on the scores of obese persons made it clear that any benefits of including them are outweighed by the disadvantages. Furthermore, the deletion of these items did not substantially affect either the stability of the scale or the pattern of scale intercorrelations among the scales for dieters, free eaters or the combined second sample. Accordingly, the final questionnaire was reduced to 51 items.

DISCUSSION

The Three-Factor Eating Questionnaire represents a further step in the development of psychometric instruments for the study of eating behaviors. Herman's Restraint Scale and Pudel's Latent Obesity Questionnaire were landmarks in this process, surprisingly successful in the limited circumstances for which they were devised. The discovery of three dimensions within the global concepts of restrained eating and latent obesity now frees investigators of these limitations and permits the more differentiated study of a wider range of behavior.

The few applications of the Three-Factor Eating Questionnaire support its usefulness and have clarified the findings of two earlier studies on changes in body weight during depression. Polivy and Herman [18] and Zielinski [36] had reported that, when depressed, restrained eaters gained weight while unrestrained eaters lost weight, suggesting that restraint predicted weight changes. The Three-Factor Questionnaire, however, revealed that dietary restraint, as measured by Factor I, was not related to weight changes among 115 persons suffering from DSM-III diagnosed primary affective disease [35]. It was disinhibition, as measured by Factor II, that predicted weight change during depression: the higher the disinhibition score, the greater the weight gain. The significance of this finding becomes clear from the fact that Factor II was highly correlated with the total score on the Restraint Scale. Thus in both the Polivy and Herman [18] and the Zielinski [36] studies it was apparently

also disinhibition, and not restraint, that predicted weight change. The Three-Factor Questionnaire thus made possible an important distinction that was precluded by the simpler factor structure of the Restraint Scale, thereby correcting a misapprehension as to the roles of restraint and disinhibition in weight change during depression.

Marcus and Wing used the Questionnaire to assess 66 obese women, a high percentage (44%) of whom reported serious problems with binge eating [15]. The criterion validity of the questionnaire was supported by the finding that binge severity, quantified by a scale devised for that purpose [6] correlated with Factor II, disinhibition ($r=0.61$, $p<0.001$) but not with Factor I, cognitive restraint ($r=-0.14$, NS). In addition, binge severity correlated with Factor III, perceived hunger ($r=0.54$, $p < 0.001$). Ganley has reported high test-retest reliability in a small sample different from those used in the construction of the instrument—college students [5]. Seventeen men and women between the ages of 19 and 23, including three overweight persons, yielded one-month test-retest reliabilities of 0.93 for Factor I, 0.80 for Factor II and 0.83 for Factor III. Finally, Shrager *et al.* have shown that the Questionnaire can predict response to experimental manipulations as well as to life events. Factor II (but not the other two factors) was highly correlated ($r=0.77$, $p < 0.01$) with overeating during a laboratory study of food intake under ambiguous circumstances [27].

Theoretical interpretations. The item content associated with Factor I has been stable from the initial to the final analyses, and changes have only served to sharpen and strengthen its interpretation as cognitive restraint of eating. Stability and sharpening of factor content across studies also occurred for Factor III, confirming its interpretation as susceptibility to hunger. But the content of Factor II changed from an initial focus on behavioral and weight lability to a more general dimension of disinhibited eating. The construct validity of this scale requires continuing appraisal, particularly in relation to interpretations that do not invoke prior inhibition as a prerequisite.

Treatment implications. Whenever multiple factors contribute to a behavior, different treatments may be indicated for different kinds of patients. High scorers on scale I, for example, might be especially responsive to information—about caloric balance, about nutrition, and particularly about traditional behavioral strategies for stimulus control. High scorers on scale II, on the other hand, like alcoholics, may benefit from the kind of behavioral management devised by Marlatt for the ‘abstinence violation effect’ [16]. They may also respond to the interpersonal supports of group approaches, especially in dealing with emotional disinhibitors such as anxiety, depression or loneliness. High scorers on scale III might benefit from attributional techniques for coping with hunger or, alternatively, from long-term use of appetite-suppressant medication [30].

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APPENDIX: THREE-FACTOR EATING QUESTIONNAIRE

One point is given for each item in Part I and for each item (numbered question) in Part II. The correct answer for the true/false items is underlined and beside it is the number of the factor that it measures. The direction of the question in Part II is determined by splitting the responses at the middle. If the item is labelled '+', those responses above the middle are given a zero. Vice versa for those with a '-'. For example, anyone scoring 3 or 4 on the first item in Part II (item No. 37) would receive one point. Anyone scoring 1 or 2 would receive a zero.

		Factor Number	
Part I			
1.	When I smell a sizzling steak or see a juicy piece of meat, I find it very difficult to keep from eating, even if I have just finished a meal.	<u>T</u>	F 2
2.	I usually eat too much at social occasions, like parties and picnics.	<u>T</u>	F 2
3.	I am usually so hungry that I eat more than three times a day.	<u>T</u>	F 3
4.	When I have eaten my quota of calories, I am usually good about not eating any more.	<u>T</u>	F 1
5.	Dieting is so hard for me because I just get too hungry.	<u>T</u>	F 3
6.	I deliberately take small helpings as a means of controlling my weight.	<u>T</u>	F 1
7.	Sometimes things just taste so good that I keep on eating even when I am no longer hungry.	<u>T</u>	F 2
8.	Since I am often hungry, I sometimes wish that while I am eating, an expert would tell me that I have had enough or that I can have something more to eat.	<u>T</u>	F 3
9.	When I feel anxious, I find myself eating.	<u>T</u>	F 2
10.	Life is too short to worry about dieting.	<u>T</u>	<u>F</u> 1
11.	Since my weight goes up and down, I have gone on reducing diets more than once.	<u>T</u>	F 2
12.	I often feel so hungry that I just have to eat something.	<u>T</u>	F 3
13.	When I am with someone who is overeating, I usually overeat too.	<u>T</u>	F 2
14.	I have a pretty good idea of the number of calories in common food.	<u>T</u>	F 1
15.	Sometimes when I start eating, I just can't seem to stop.	<u>T</u>	F 2
16.	It is not difficult for me to leave something on my plate.	<u>T</u>	<u>F</u> 2
17.	At certain times of the day, I get hungry because I have gotten used to eating then.	<u>T</u>	F 3
18.	While on a diet, if I eat food that is not allowed, I consciously eat less for a period of time to make up for it.	<u>T</u>	F 1
19.	Being with someone who is eating often makes me hungry enough to eat also.	<u>T</u>	F 3
20.	When I feel blue, I often overeat.	<u>T</u>	F 2
21.	I enjoy eating too much to spoil it by counting calories or watching my weight.	<u>T</u>	<u>F</u> 1
22.	When I see a real delicacy, I often get so hungry that I have to eat right away.	<u>T</u>	<u>F</u> 3
23.	I often stop eating when I am not really full as a conscious means of limiting the amount that I eat.	<u>T</u>	F 1
24.	I get so hungry that my stomach often seems like a bottomless pit.	<u>T</u>	F 3
25.	My weight has hardly changed at all in the last ten years.	<u>T</u>	<u>F</u> 2
26.	I am always hungry so it is hard for me to stop eating before I finish the food on my plate.	<u>T</u>	F 3
27.	When I feel lonely, I console myself by eating.	<u>T</u>	F 2
28.	I consciously hold back at meals in order not to gain weight.	<u>T</u>	F 1
29.	I sometimes get very hungry late in the evening or at night.	<u>T</u>	F 3

- | | | | |
|--|----------|----------|---|
| 30. I eat anything I want, any time I want. | <u>T</u> | <u>F</u> | 1 |
| 31. Without even thinking about it, I take a long time to eat. | <u>T</u> | <u>F</u> | 2 |
| 32. I count calories as a conscious means of controlling my weight. | <u>T</u> | <u>F</u> | 1 |
| 33. I do not eat some foods because they make me fat. | <u>T</u> | <u>F</u> | 1 |
| 34. I am always hungry enough to eat at any time. | <u>T</u> | <u>F</u> | 3 |
| 35. I pay a great deal of attention to changes in my figure. | <u>T</u> | <u>F</u> | 1 |
| 36. While on a diet, if I eat a food that is not allowed, I often then splurge and eat other high calorie foods. | <u>T</u> | <u>F</u> | 2 |

Part II

Directions: Please answer the following questions by circling the number above the response that is appropriate to you.

37. How often are you dieting in a conscious effort to control your weight?
- | | | | | |
|--------|-----------|---------|--------|-----|
| 1 | 2 | 3 | 4 | |
| rarely | sometimes | usually | always | + 1 |
38. Would a weight fluctuation of 5 lbs affect the way you live your life?
- | | | | | |
|------------|----------|------------|-----------|-----|
| 1 | 2 | 3 | 4 | |
| not at all | slightly | moderately | very much | + 1 |
39. How often do you feel hungry?
- | | | | | |
|-------------------|-------------------------|---------------------|---------------|-----|
| 1 | 2 | 3 | 4 | |
| only at mealtimes | sometimes between meals | often between meals | almost always | + 3 |
40. Do your feelings of guilt about overeating help you to control your food intake?
- | | | | | |
|-------|--------|-------|--------|-----|
| 1 | 2 | 3 | 4 | |
| never | rarely | often | always | + 1 |
41. How difficult would it be for you to stop eating halfway through dinner and not eat for the next four hours?
- | | | | | |
|------|--------------------|----------------------|----------------|-----|
| 1 | 2 | 3 | 4 | |
| easy | slightly difficult | moderately difficult | very difficult | + 3 |
42. How conscious are you of what you are eating?
- | | | | | |
|------------|----------|------------|-----------|-----|
| 1 | 2 | 3 | 4 | |
| not at all | slightly | moderately | extremely | + 1 |
43. How frequently do you avoid 'stocking up' on tempting foods?
- | | | | | |
|--------------|--------|---------|---------------|-----|
| 1 | 2 | 3 | 4 | |
| almost never | seldom | usually | almost always | + 1 |
44. How likely are you to shop for low calorie foods?
- | | | | | |
|----------|-------------------|-------------------|-------------|-----|
| 1 | 2 | 3 | 4 | |
| unlikely | slightly unlikely | moderately likely | very likely | + 1 |
45. Do you eat sensibly in front of others and splurge alone?
- | | | | | |
|-------|--------|-------|--------|-----|
| 1 | 2 | 3 | 4 | |
| never | rarely | often | always | + 2 |
46. How likely are you to consciously eat slowly in order to cut down on how much you eat?
- | | | | | |
|----------|-----------------|-------------------|-------------|-----|
| 1 | 2 | 3 | 4 | |
| unlikely | slightly likely | moderately likely | very likely | + 1 |

47. How frequently do you skip dessert because you are no longer hungry?
- | | | | | |
|--------------|--------|----------------------|------------------|-----|
| 1 | 2 | 3 | 4 | |
| almost never | seldom | at least once a week | almost every day | - 3 |
48. How likely are you to consciously eat less than you want?
- | | | | | |
|----------|-----------------|-------------------|-------------|-----|
| 1 | 2 | 3 | 4 | |
| unlikely | slightly likely | moderately likely | very likely | + 1 |
49. Do you go on eating binges though you are not hungry?
- | | | | | |
|-------|--------|-----------|----------------------|-----|
| 1 | 2 | 3 | 4 | |
| never | rarely | sometimes | at least once a week | + 2 |
50. On a scale of 0 to 5, where 0 means no restraint in eating (eating whatever you want, whenever you want it) and 5 means total restraint (constantly limiting food intake and never 'giving in'), what number would you give yourself?
- | | | | | |
|---|--|--|--|-----|
| 0 | | | | |
| eat whatever you want, whenever you want it | | | | + 1 |
| 1 | | | | |
| usually eat whatever you want, whenever you want it | | | | |
| 2 | | | | |
| often eat whatever you want, whenever you want it | | | | |
| 3 | | | | |
| often limit food intake, but often 'give in' | | | | |
| 4 | | | | |
| usually limit food intake, rarely 'give in' | | | | |
| 5 | | | | |
| constantly limiting food intake, never 'giving in' | | | | |
51. To what extent does this statement describe your eating behavior? 'I start dieting in the morning, but because of any number of things that happen during the day, by evening I have given up and eat what I want, promising myself to start dieting again tomorrow.'
- | | | | | |
|-------------|----------------|-------------------------------|------------------------|-----|
| 1 | 2 | 3 | 4 | |
| not like me | little like me | pretty good description of me | describes me perfectly | + 2 |