



Research Review

Consumption stereotypes and impression management: How you are what you eat

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Abstract

Consumption stereotypes refer to judgments about others based on their food intake. We review the empirical research on stereotypes based on what and how much people eat. The characteristics stereotypically associated with food intake pertain to domains ranging from gender roles and social appeal to health and weight. For example, people who eat “healthy” foods and smaller meals are seen as more feminine; conversely, those who eat “unhealthy” foods and larger meals are seen as more masculine. We further discuss how these stereotypes can be exploited by the eater to convey a particular impression (e.g., femininity, social appeal). Finally, we discuss the ways in which using food intake as an impression-management tactic can lead to chronic food restriction and unhealthy eating habits.

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Introduction

We are all familiar with the notion that the consumption of food has implications beyond merely providing the nutrients and energy needed to sustain life. Food can have symbolic value or represent a feared stimulus, and eating (or not eating) can represent one’s struggle to negotiate power and control. Food and eating also play a major role in social life. Indeed, many of our interactions with others involve food and eating, and many of our meals are consumed with other people, or at least in the presence of others. Aside from the social atmosphere surrounding food intake, there exists a powerful dynamic between the social situation and food intake, including the social norms that govern food intake (see [Herman, Roth, & Polivy, 2003](#)). Anthropological and sociological work has emphasized the meaning of food and eating in self- and cultural-definition (e.g., [Counihan, 1999](#); [Farb & Armelagos, 1980](#); [Murcott, 1983](#)). This literature indicates that in many cultures, the importance of food and eating extends well beyond mere sustenance, playing a role in identity expression, communication, social interactions, as well as in delineating status and gender roles. Moreover, research by [Lindeman and colleagues \(Lindeman & Sirelius, 2001; Lindeman & Stark, 1999, 2000\)](#) suggests that food choice is a means by which one expresses one’s philosophy of life. In addition, the current emphasis on dieting and slimness in Western cultures promotes norms describing what and when one should eat, as well as what one should look like. Taken together, these considerations suggest that what one eats has important implications for social judgments. Understanding the social dynamics of food and eating can help us to better understand the social forces that influence people’s eating behavior.

The present paper describes the experimental research on food-consumption stereotypes (i.e., judgments of others based on their food intake). Research on this topic is not yet particularly extensive, but enough data have been accumulated so that identifying some general patterns and significant gaps in the literature is worthwhile. We hope thereby to stimulate and guide future research in this domain. Stereotypes based on eating are interesting in their own right, but there is an additional element of importance in this research that we will address in the present paper: awareness of these stereotypes may affect eating behavior.

First, because eating is most often a social event, it is vulnerable to social influences ([Herman et al., 2003](#)), including impression management based on consumption stereotypes. In certain situations, people may exploit these stereotypes and eat in a particular way (e.g., eating minimally) so as to project a desired impression to others. Second, these stereotypes may become internalized and contribute to self-judgments, thereby influencing food choices on a chronic basis as a means of establishing or maintaining a desired self-image. Thus, these stereotypes not only reflect generalized beliefs but may also drive behavior.

Consumption stereotypes

The notion that what a person eats conveys a particular impression of that individual is historically and geographically widespread. Over the centuries among so-called primitive cultures, the idea that “you are what you eat” has been taken quite literally, with individuals believed to take on the properties, physical or otherwise, of the animals that they consume (see, for example, [Frazer, 1900](#)). These same beliefs are still prevalent, although perhaps in a less literal way, in more modern cultures. Individuals attribute a wide array of traits (including gender roles, social appeal, morality, and intelligence) to other people on the basis of their food intake. Research in this area has generally been of two types: studies examining judgments of others as a function of the *type* of food consumed and the *amount* of food consumed.

“You are what you eat”: stereotypes based on type of food consumed

Animal traits

In the most direct test of the “you are what you eat” hypothesis, [Nemeroff and Rozin \(1989\)](#) examined whether we ascribe to individuals (“targets”) traits that are directly associated with the food consumed; specifically, do people take on the supposed attributes associated with the foods that they eat? Participants read a description of an exotic culture including information about the social structure of the culture, the daily activities of its members, and their dietary habits. In one study, participants read that the group ate sea turtles or wild boars; in a second

study, participants learned that the group members were elephant-eaters or vegetarians. Overall, participants rated the turtle-eaters as more turtle-like than the boar-eaters (e.g., “good swimmer”), and rated the elephant-eaters as more elephant-like than the vegetarians (e.g., “big build”).

The results of Nemeroff and Rozin’s (1989) study provide evidence that the “you are what you eat” belief is not limited to primitive cultures, but is one that is also apparent in modern Western society. In what follows, we will see that this dictum in fact reflects quite a prominent belief system and that there is a wide array of traits and characteristics that are ascribed to individuals on the basis of their food choices.

Femininity and masculinity

Femininity and masculinity have consistently been associated with the type of food that individuals eat. Stein and Nemeroff (1995) had participants read a profile of either a female or male target including information about the target’s preferred foods. Lists of “bad” foods and “good” foods (in terms of health value and caloric content) were determined through pre-testing.¹ Half of the targets were described as preferring “bad” foods, such as hamburgers, doughnuts, and double-fudge ice-cream sundaes; the other half were described as preferring “good” foods, such as chicken, whole-wheat bread, and fruit. To avoid the possible confound that bad-food eaters would be perceived as generally neglectful of their bodies and weight, all targets were described as being of average height and weight, and as being physically active. Participants then rated the target individuals on direct measures of femininity and masculinity (i.e., measures inquiring directly about how masculine or feminine the target is). Regardless of whether the target was male or female, targets described as preferring “good” foods were rated as more feminine and less masculine than were targets described as preferring “bad” foods.

The same pattern of results has been found in other studies. Individuals described as consuming “feminine” foods (e.g., bagel with cream cheese) are rated as more feminine and less masculine, irrespective of rater sex, than are those described as consuming “masculine” foods (e.g., flapjacks with syrup) (Mooney & Lorenz, 1997). In addition, regular consumption of high-fat foods is associated with being male, whereas regular consumption of low-fat foods is associated with being female (Barker, Tandy, & Stookey, 1999). Even when targets were presented in a single sentence, females described as

regularly consuming a breakfast consisting of food with a good reputation (oatmeal with fresh fruit and nuts) were judged as more feminine and less masculine than were females described as regularly consuming a breakfast consisting of food with a bad reputation (pie); ratings of the male targets’ femininity/masculinity were not affected by the type of food consumed (Oakes & Slotterback, 2004–2005).

*Social appeal*²

Several studies have examined the effects of type of food eaten on ratings of various characteristics of social or interpersonal significance (other than masculinity and femininity). These studies have tended to divide foods into “good” or “bad” and to explore whether people who eat good or bad foods are themselves regarded as good or bad people. For instance, Stein and Nemeroff (1995) found that targets who ate “good” (i.e., non-fattening) foods were rated as more physically attractive, more likeable, and more moral (tolerant of others, monogamous, considerate, concerned, ethical, kind-hearted, virtuous) than were targets who ate “bad” (i.e., fattening) foods. Mooney, DeTore, and Malloy (1994) found that female and male raters judged female targets who preferred low-fat foods to be more attractive, more intelligent, calmer, and more conscientious than female targets who preferred high-fat foods. In a subsequent study (Mooney & Lorenz, 1997) comparing “feminine” and “masculine” diets, participants (both male and female) rated the targets on an index of “personal qualities” (conscientious, attractive, conventional, sensitive, emotional, self-controlled, intelligent, assertive, and strong). Targets who ate the feminine diet were rated higher on the personal qualities scale than were targets who ate the masculine diet.

In contrast to the overall positive image of people who eat low-fat foods described thus far, other studies report a more varied picture. Mooney and Amico (2000) had participants read a description of a woman who ordered either a “good” lunch (chicken sandwich and salad) or a “bad” lunch (hamburger and fries). Although participants rated the eater of the good lunch as more moral (e.g., less likely to have cheated in college), they also indicated that they were less likely to want to socialize with her. Similarly, Fries and Croyle (1993) had participants report their impressions of consumers of a low-fat/vegetarian diet or a

¹Stein and Nemeroff (1995) found regional differences in the types of food that were considered “good” and “bad,” and used foods for which there was consensus (C. J. Nemeroff, personal communication, November 24, 2003). The fact that there is variability in which foods are considered “good” or “bad” (or “masculine” and “feminine”) has implications both for consumption-stereotypes research and for people’s impression-management strategies. For a discussion of Americans’ beliefs about “good” foods and “bad” foods, see Oakes (2004); for a discussion of cultural differences in food attitudes, see Rozin, Fischler, Imada, Sarubin, and Wrzesniewski (1999).

²In the present paper, the term “social appeal” is used to reflect an individual’s level of interpersonal desirability, including such factors as likeability, physical attractiveness, and a desire to interact with the individual. Other terms that have been used in the literature (e.g., social desirability, social attractiveness, likeable) seem less appropriate for capturing our intended usage. For example, the term “social desirability” can be used to reflect how desirable a person is interpersonally, but it also has the additional (and probably more common) meaning of behaving in a socially appropriate manner. The term “social attractiveness” has been used by other researchers for the purpose of distinguishing it from the concept of physical attractiveness; however, we sought an umbrella term that would include both social and physical attractiveness. Accordingly, we use the term “social appeal” throughout.

high-fat/fast-food diet, both in an open-ended and a trait-rating format. High-fat/fast-food consumers were seen as less physically attractive, less warm, less intelligent, and less studious, and were also seen as more likely to attend parties, more likely to drink alcohol, and more easygoing. Oakes and Slotterback (2004–2005) found that oatmeal eaters were perceived as being more physically attractive, more intelligent, more responsible, and more moral, but also less humorous and more boring than were pie eaters. Finally, Barker et al. (1999) found that consumers of low-fat diets were rated as attractive, intelligent, and middle-class, but also as serious, high-strung, unhappy, and antisocial. In contrast, consumers of high-fat diets were perceived to be unattractive, unintelligent, and working class, but also fun-loving, happy, and sociable.

Taken together, the results of the studies relating food type to social appeal indicate that the type of food that an individual eats influences how he or she is perceived by others. In particular, people who eat “good” or low-fat foods are generally perceived as being more attractive, as possessing characteristics such as intelligence and conscientiousness, and also as being “better” people than are those who eat high-fat foods. They are not, however, seen as particularly sociable or fun to be with. The ambivalent stereotypes associated with the type of food consumed might well have implications for individuals’ use of food intake as an impression-management tactic.

Health and weight

Weighing a lot may not mean that one is unhealthy (Ernsberger & Koletsky, 1999); but stereotypically, weight and health are perceived as inversely related, and both are seen as dependent on what sorts of foods one eats. “Fattening” foods, for instance, are assumed to make one both heavier and unhealthier; so-called “health” foods, by contrast, are often seen as leading to slimness and, of course, better health.

Research does indeed suggest that people’s health, fitness, and weight are perceived as varying as a function of the types of food they eat. For example, those who eat “good” or low-fat meals are rated as being healthier (Mooney & Amico, 2000; Oakes & Slotterback, 2004–2005) and as having a smaller body size (Fries & Croyle, 1993; Mooney et al., 1994; Oakes & Slotterback, 2004–2005; Stein & Nemeroff, 1995) than are eaters of “bad” or high-fat meals. Other studies have found that those who eat low-fat diets are perceived as fitter and more active than are those who eat high-fat diets (Barker et al., 1999; Fries & Croyle, 1993; Oakes & Slotterback, 2004–2005; Stein & Nemeroff, 1995), and those who eat high-fat foods are perceived as more likely to be smokers (Barker et al., 1999). Finally, those who eat healthy foods are seen as more health/weight-conscious (Fries & Croyle, 1993; Oakes & Slotterback, 2004–2005; Sadalla & Burroughs, 1981), but also as hypochondriacal (Sadalla & Burroughs, 1981). Interestingly, in some studies, consumption stereotypes emerged despite the researchers’ attempts to equate target

individuals on various characteristics (such as weight and activity level) across meal-type conditions (e.g., Stein & Nemeroff, 1995); in these cases, the consumption stereotypes appear to override the available information.

Summary

Several traits are differentially attributed to individuals as a function of the type of food that they eat. The focus of this research has been on: (1) gender-role characteristics (i.e., direct femininity and masculinity), (2) social appeal (including moral “goodness”), and (3) health and weight. Overall, it appears that trait attributions emerge independent of target or rater sex, such that, for example, women and men are judged as being more feminine and less masculine when they eat low-fat foods than when they eat high-fat foods. In addition, there are somewhat mixed perceptions of low-fat-food consumers: On the one hand, they are seen as being intelligent and moral; on the other hand, they are also seen as boring and not particularly fun to be with. Finally, individuals who eat healthier foods are themselves judged to be healthier, and also to have a smaller body size than those who eat unhealthy foods.

You are how much you eat

In addition to stereotypes based on *what* someone eats, research has also examined the stereotypes that people have of others based on *how much* someone eats. This body of research initially stemmed from the observation that dieting and eating disorders (i.e., a commitment to eating minimally) were found predominantly among women. Given our society’s preoccupation with the thinness ideal for women, being thin and eating lightly as a means of achieving thinness have become a part of the female gender role.

Femininity and masculinity

Chaiken and Pliner (1987) presented undergraduate students with a description of a male or a female target that included a food diary detailing the contents of the target’s last two meals (breakfast and lunch). The food diaries varied such that participants read that the target had eaten either a small breakfast and a small lunch, or a large breakfast and a large lunch. Participants were then asked to rate the target’s femininity and masculinity on direct measures and indirect measures (i.e., gender-role inventories composed of stereotypically feminine traits, such as “caring,” and stereotypically masculine traits, such as “dominant”). For female targets, those described as eating smaller meals were rated as more feminine and less masculine on the direct measures, and as more feminine on the indirect measure of femininity, than were those described as eating larger meals. Perceptions of male targets’ femininity, however, were not affected by the meal-size manipulation. There were also no effects of meal size on the indirect measure of masculinity for either female or male targets. These results were replicated in a second

study (Pliner & Chaiken, 1990) in which participants ate crackers with various toppings in the presence of a confederate. Confederates' ratings of female participants' femininity were negatively correlated with the amount that the participants had eaten, but ratings of their masculinity were unrelated to amount eaten. Confederates' ratings of male participants in terms of both their masculinity and femininity were unrelated to amount eaten.

Bock and Kanarek (1995) examined whether perceptions of the eater varied linearly with amount eaten by providing participants with descriptions of targets' food intake that were small, moderate, or large. As meal size increased, participants rated both female and male targets as more masculine and less feminine on the direct measures. Ratings on indirect measures of femininity and masculinity were not affected by meal size. These results are important in three respects. First, they suggest that the effects of meal size on person perception are indeed linear, at least in terms of direct measures of femininity and masculinity. Second, they suggest that perceptions of men may also be influenced by the size of the meal that they eat (in contrast to earlier work suggesting that the effects were confined to perceptions of women). Finally, because the results for direct measures are more consistent across studies than are those for indirect measures, it seems that meal size is associated with femininity-masculinity in a global sense (i.e., loosely defined, perhaps ineffable conceptions of femininity and masculinity) but not necessarily with the specific stereotypic traits that comprise gender-role inventories (Bock & Kanarek, 1995).

Only two studies to date have used visual presentation of the targets, and have produced conflicting results. Basow and Kobrynowicz (1993) had participants view a video clip of a female target eating lunch alone.³ They found no effects of meal size on ratings of the target using the expressive (femininity) and instrumental (masculinity) scales of the Bem Sex Role Inventory (BSRI; Bem, 1974). Vartanian (2000) presented participants with either a video or a written portrayal of a woman eating either a small or a large meal and found that, overall, women who ate smaller meals were judged as more feminine and less masculine, regardless of whether the targets were presented visually or verbally.

It is important to note that the Vartanian (2000) study controlled for the types of food that constituted the small and large meals. In the previous studies by Basow and

Kobrynowicz (1993) and Chaiken and Pliner (1987), meal size was confounded with meal type. For example, in the study by Chaiken and Pliner, a small lunch consisted of a green salad with oil and vinegar dressing, and coffee with cream, whereas a large lunch consisted of, among other things, spaghetti with meat sauce, a chocolate brownie, and a large Coke. In the study by Basow and Kobrynowicz, a small meal consisted of a salad and a beverage, whereas a large meal consisted of a meatball hoagie with fries, mozzarella sticks, and chocolate cake. The confounding of meal type and meal size in those studies may well have obscured the effect of meal size per se. Some researchers have argued that, in the real world, meal size and type are generally confounded (Martins, Pliner, & Lee, 2004), and that maintaining this relation increases the external validity of the study. Our view, however, is that it is important for a thorough understanding of consumption stereotypes that the effects of the different parameters be disentangled as much as possible. By experimentally separating the parameters of consumption, it is possible to examine the ways in which the various parameters operate independently, as well as the ways in which they interact with one another in determining the type of judgments made of the eater.

Taken together, the results of the studies described above suggest that meal size influences perceptions of women's (and possibly men's) femininity and masculinity. These differential perceptions occur whether the eater is observed or merely described. It is also noteworthy that these findings emerge whether participants are presented with evidence concerning a single meal or a more extensive consumption history. The strength of this phenomenon, however, does seem to depend on exactly how "femininity" and "masculinity" are measured. It appears that perceived "femininity" is more accurately represented by some global, loosely defined construct (i.e., a direct measure) than by the specific characteristics that comprise standard gender-role inventories (i.e., indirect measures), although further research is needed to confirm this conclusion.

Social appeal

Most of the research on social appeal as a function of meal size has focused on the specific attribute of physical attractiveness. Female targets were rated (by female and male judges) as more physically attractive when they were described as eating smaller meals, whereas ratings of male targets were not affected by the size of the meal they ate (Bock & Kanarek, 1995; Chaiken & Pliner, 1987). In contrast, when the female target is presented visually (Basow & Kobrynowicz, 1993; Vartanian, 2000), no effect of meal size on ratings of physical attractiveness emerged (see also Ogden & Awal, 2003). It may be, therefore, that when the eater is visible, ratings of attractiveness are not responsive to meal size. This makes sense if we assume that judgments of the target's attractiveness will be less responsive to peripheral influences (such as food intake) when the target is presented in a clear visual way than when

³There were two manipulated variables in this study: meal size (small vs. large) and meal type ("feminine" meals consisting of a salad and beverage vs. "masculine" meals consisting of, among other things, a meatball hoagie). These two variables, however, were partially confounded in that the average size of the feminine meals was smaller than was the average size of the masculine meals. Moreover, the meal-type manipulation seems less important than does the meal-size manipulation: the two meals that were most similar in size to one another, but that differed in terms of gender typing (i.e., the large feminine and small masculine meals) had similar effects on people's perceptions of the target. Therefore, valid inferences can be drawn only from the meal-size manipulation.

the target's appearance must be extrapolated from a verbal description of behavior (such as food intake).

In addition to physical attractiveness, it has also been consistently shown that people perceive targets who eat smaller meals as being neater (vs. messier/sloppier) than those who eat larger meals, and that this is true whether the targets are presented by written description (Bock & Kanarek, 1995; Chaiken & Pliner, 1987; Vartanian, 2000) or by video (Vartanian, 2000). It is possible that judgments of neatness emerge because eating less is generally associated with perceptions of restraint and self-control.

Finally, researchers have also examined the influence of meal size on traits related to general social appeal. For example, Basow and Kobrynowicz (1993) had participants rate targets on a composite measure of social appeal, including items such as "want to become friends with," "want to get to know better," and "want to date." This study showed that people rated women who ate smaller meals higher on the social-appeal index than they did women who ate larger meals, indicating an increased desire to interact with the target socially. Other research has found no effect of meal size on ratings of how likeable the individual is (Bock & Kanarek, 1995; Chaiken & Pliner, 1987; Vartanian, 2000), or on ratings of popularity (Ogden & Awal, 2003; Vartanian, 2000), intelligence, or politeness (Vartanian, 2000). Perhaps inquiring about a participant's desire to interact with a target (as in Basow and Kobrynowicz's study) is a better indicator of social appeal than is obtaining ratings on such characteristics as "likeability" (as in Bock & Kanarek, Chaiken & Pliner, and Vartanian).

Overall, social appeal stereotypes associated with meal size seem to center on appearance and attractiveness, whereas general social competence and other aspects of social appeal do not seem to be as strongly related to meal size. Although the general pattern of results suggests that women who eat smaller meals are perceived as more attractive and as more concerned with appearance, these findings are not unequivocal, and it is still unclear whether or to what extent mode of presentation influences these ratings. Moreover, perceptions of male targets' attractiveness do not seem to be influenced by the size of the meal that they eat.

Weight and body size

Studies in which targets are presented by written description have found that people perceive targets (both women and men) who eat smaller meals as being thinner than targets who eat larger meals (Bock & Kanarek, 1995; Chaiken & Pliner, 1987). In contrast, one study found that when a female target was presented by video, the size of the meal that she ate had no effect on people's perceptions of her weight (Basow & Kobrynowicz, 1993). It seems, then, that the mode of target presentation may influence the effect of meal size on perceived target weight or shape. Perceived weight may be less influenced by meal size when the target is presented visually because the visual image

"anchors" judgments and makes them less responsive to secondary variables such as meal size. Research by Vartanian (2000, 2004), however, does not support this conclusion: Targets who ate smaller meals were judged as being thinner and weighing less whether they were presented verbally or visually. Body-weight judgments did, however, vary as a function of raters' level of dietary restraint, such that dieters (but not non-dieters) were influenced by meal size in making body-weight judgments.

Consumption stereotypes and overweight targets

In further exploring the connection between body size and meal size, two recent studies have examined the impact of target body size on judgments based on meal size. Ogden and Awal (2003) showed participants a photograph of a thin or heavy female target who was portrayed as eating a "light" meal or a "heavy" meal. Overall, meal size had much less impact on judgments of the overweight target than on judgments of the thinner target. The thin target eating a small meal (as opposed to a large meal) was judged as more feminine, more likely to be dieting, and more likely to be dissatisfied with her body; these meal-size effects were much less pronounced (or altogether absent) for heavier targets. The authors argued that the reduced influence of meal size on judgments of overweight targets may be due to the fact that judgments for overweight targets are based on assumed typical eating patterns rather than on eating behavior observed in the particular situation, probably because their heavier weights are in part attributed to the regular consumption of large amounts of food. Another possibility is that the negative stereotypes of obese people are so pervasive that heavier individuals do not benefit from "eating right." Martins et al. (2004) conducted a similar study in which they provided participants with written descriptions of the target's food intake (small meals vs. large meals), as well as a self-report silhouette rating ostensibly provided by a female or male target who rated her or himself as normal weight or overweight. The overweight male described as eating small meals was judged as more socially appealing (e.g., likeable, fun to spend time with) compared to when he was described as eating large meals; there was no meal-size effect for normal-weight male targets. The pattern of results for female targets was somewhat more complicated. Female participants rated the normal-weight female who ate small meals as the most socially appealing. In contrast, male participants judged the normal-weight female who ate large meals as more socially appealing than any other target. It appears that weight can interact with meal size in influencing people's judgments, but that the nature of this interaction depends to some extent on what sort of judgments are being made and who is making them. Future research is needed to clarify the interaction between body weight and food intake in determining how targets are perceived. In addition, it will be important to explore further the mediating role of people's assumptions about the target's typical eating habits because food-intake

information could be processed differently depending on whether or not it matches the perceivers' expectations.

Dieting and eating disorders

Dieters and individuals with clinical eating disorders are known to selectively attend to and process food-, eating-, and weight-related information (e.g., Francis, Stewart, & Hounsell, 1997; Green & Rogers, 1993; Sackville, Schotte, Touyz, Griffiths, & Beumont, 1998; Stewart & Samoluk, 1997). One might therefore expect that these individuals would be particularly likely to make use of consumption stereotypes. Research in our own lab partially supports this hypothesis. Vartanian (2000, 2004) found that restrained eaters (dieters) but not unrestrained eaters (non-dieters) judged women who ate smaller meals as being thinner and weighing less than they judged women who ate larger meals. No differences were found, however, between restrained and unrestrained eaters on judgments of other characteristics, such as masculinity and femininity. In addition, Stein and Nemeroff (1995) did not find any restraint differences in judgments of morality based on the type of food eaten (good vs. bad). These findings suggest that differences between restrained and unrestrained eaters are limited to judgments of body weight and shape. Another study examining judgments based on the caloric and fat content of a target's meals found that "anorexic-profile" (based on selected Eating Disorder Inventory subscales) participants rated the consumer of the high-fat diet as having a significantly larger body size than did "normal-profile" participants (Hoyt, Hamilton, & Rickard, 2003). These findings suggest that anorexic-profile individuals believe that a high-fat diet has a much greater impact on one's weight than do normal-profile individuals. Taken together, these studies indicate that some individuals (i.e., dieters or individuals at risk for eating disorders) are especially likely to be influenced by food-intake information, at least in the context of judgments of body weight. Future research should examine the mechanisms involved in these differential judgments to determine what role they play in the development or maintenance of disordered eating behavior.

You are how you eat and other parameters

What people eat and how much they eat are the two aspects of consumption stereotypes that have been explored most thoroughly, although, as we have made clear, much work remains to be done. These are not the only aspects of eating, however, that could convey an impression of what the eater is like. Eating "style"—the manner in which one eats, regardless of the type or amount of food—is also a potential source of information (for a discussion of various parameters of eating, see Herman & Polivy, 1996). There are many other possible parameters of consumption (and consumption stereotypes) besides type and amount of food consumed that are worth considering, such as the speed of eating, the frequency and pattern of

one's meals and snacking, the context of the meal, and perhaps even what one says while eating (e.g., "That cake looks delicious, but I'll pass"). Each of these parameters can also have important implications for people's social judgments. Future research addressing additional parameters of consumption stereotypes would be an important addition to the existing literature by allowing for a better understanding of the total eating environment and its influence on individuals' behaviors.

Consequences of consumption stereotypes: their impact on behavior

Given the array of characteristics that are attributed to people on the basis of their food intake, it is important to consider the extent to which awareness of these consumption stereotypes influences people's own eating behavior. Specifically, does awareness of existing consumption stereotypes motivate people to modify their food intake as a means of conveying a desirable impression?

What constitutes appropriate eating, particularly in social situations, is generally quite ambiguous, and eating behavior is therefore likely to be vulnerable to various social influences, including the desire to respond in a socially-desirable manner (Herman et al., 2003). Recent conceptions of socially-desirable responding suggest that it corresponds to a two-factor structure: one factor that reflects a conscious attempt to project a socially-desirable image to others, and a second factor that reflects a somewhat less-conscious attempt to establish or maintain a desirable self-image (Paulhus, 1984; Paulhus & John, 1998). Accordingly, we discuss the deliberate use of eating as a means of influencing the impressions that individuals convey to others, and the (potentially less deliberate) use of food intake as a means of establishing or maintaining a desirable self-image. The topic of impression management and food intake is less well-researched than is the topic of consumption stereotypes, and therefore the discussion that follows is necessarily less extensive and more speculative.

Food intake and impression management

Sadalla and Burroughs (1981) were among the first to argue that people tend to choose foods not only for nutritive and sensory reasons but also in order to bolster their public image. These authors argued that people send messages about themselves to others by means of their food intake. Herman et al. (2003) have also argued that the attempt to convey a desired impression to others is a major influence on how people eat.

Conveying a feminine image

A few studies have examined variations in food intake that seem to reflect attempts to manage the impression that one conveys by exploiting common consumption stereotypes. For example, because women who eat less are seen as more feminine, Mori, Chaiken, and Pliner (1987)

hypothesized that women would eat less when they are specifically motivated to portray an image of enhanced femininity. Male and female participants were told that they were going to engage in a get-acquainted session with a male or female student (a confederate who was portrayed as either “desirable” or “undesirable”), and were given the opportunity to snack on some M&Ms and peanuts during the session. Female participants ate less when paired with a desirable male than when paired with any other partner. If we assume that women are more motivated to appear feminine when in the presence of a desirable male, this finding suggests that women may eat less in order to enhance their perceived femininity. Male participants in this study ate less in the presence of a female confederate, regardless of her desirability. These findings were replicated in Experiment 1 of Pliner and Chaiken (1990). The findings for male participants, however, seem to be at odds with the suggestion that the minimal eating was aimed at conveying an image of femininity, as it does not seem likely that this was the goal for male participants. Accordingly, we must consider the possibility that either the eating behaviors of men and women are governed by different social motives, or that some social motive other than appearing feminine was influencing both male and female participants’ eating behavior.

Conveying a “favorable” impression

The literature relating food intake to impression management is sparse. Of the few studies that have examined impression management as a social influence on eating, only the studies by Pliner and her collaborators (Mori et al., 1987; Pliner & Chaiken, 1990) were based on women’s desire to convey a particular impression; namely, femininity. Furthermore, one cannot even be sure that the women in these studies were trying to convey an image of femininity (for example, a desire to not appear gluttonous, or a desire to appear thinner, might have been driving participants’ behavior). Other studies described by Herman et al. (2003) under the heading of impression management either do not make reference to self-presentational concerns at all (Polivy, Herman, Hackett, & Kuleshnyk, 1986; Polivy, Herman, Younger, & Erskine, 1979) or hint more abstractly at a “favorable” impression that participants may have been trying to convey (de Luca & Spigelman, 1979; Herman, Polivy, & Silver, 1979; Maykovich, 1978). Although one may conjecture that participants in these studies reduced their food intake in order to make a favorable impression on their partners, that is not necessarily the case.

The consumption-stereotypes literature indicates that eating minimally does not convey an impression that is purely positive, nor that eating liberally conveys an impression that is purely negative. Moreover, individuals are not always motivated to convey a good impression (see, for example, Gove, Hughes, & Geerken, 1980; Jellison & Gentry, 1978). People are motivated to portray an impression that will maximize rewards and minimize costs

(Schlenker, 1980), but the images that will serve this end are not always positive. For a woman, an image of femininity is not necessarily a positive one. Insofar as femininity is related to subordination and lower social status (see Conway & Vartanian, 2000), a feminine image may be desirable and appropriate in certain contexts or for certain women, but it is not necessarily a positive image. We would suggest that a better understanding of the use of food intake as an impression-management tactic will ultimately come from a more thorough understanding of consumption stereotypes and related food-intake motives.

The literature on food intake as a means of conveying a particular image has also been limited in that the only impression-management tactic that it has explored is minimal eating. Other tactics, however, may be equally (or more) appropriate and effective for conveying a particular impression, depending on the image that one wishes to convey. For example, eating a healthy meal may be a more effective means of conveying one’s morality or intelligence than eating a small meal. In fact, Herman et al. (2003) have argued that the norm of minimal eating is less far-reaching than are some of the other norms governing food intake.

Necessary conditions for impression management

Motivation

Motivation to convey a particular impression is a necessary precondition for impression-management efforts (Leary, 1995). Impression-management efforts increase when motivation is heightened, such as when the impression that one conveys is related to a highly valued reward or outcome, or when the individual’s image is threatened (Leary & Kowalski, 1990). For this reason, impression-management studies (e.g., Mori et al., 1987) have typically manipulated confederate or situational characteristics as a means of increasing impression-management concerns and motivation. Although these studies are designed to elicit impression-management concerns, such motivation is rarely directly assessed.

Pliner and Chaiken (1990, Experiment 2) conducted the only study to date that has directly explored the social motives related to food intake. In this study, male and female participants were asked to indicate which impressions were important for them to convey, as well as how much they would eat in order to fulfill each of these motives. All participants indicated that it was more important for them to appear socially appealing to an opposite-sex partner than to a same-sex partner. (Homosexual interests were either absent or denied.) Female participants thought it more important to appear feminine when interacting with a male partner; male participants indicated that it was important to appear masculine whether interacting with a male or a female partner. With regard to the question of how much they would eat to satisfy each motive, assuming that each motive was important, all participants indicated that they would eat

less in order to appear more socially appealing and to appear more feminine, and that they would eat more in order to appear more masculine. These findings indicate that people are at least to some extent consciously aware of the potential for using food intake as an impression-management tactic.

The motives expressed by participants in Pliner and Chaiken's (1990) study are to some degree consistent with the results of Mori et al. (1987) and Pliner and Chaiken (1990, Experiment 1). Female participants ate less in the presence of a male partner, and the effect was more pronounced when the male partner was desirable. This latter condition may represent the situation in which the social-appeal and femininity motives are most strongly activated. Thus, for women, their behavior and their expressed social motives also appear to be consistent with the consumption stereotypes related to meal size discussed earlier, suggesting that eating less can be used as an impression-management tactic.

Male participants in Mori et al.'s (1987) study ate less in the presence of female partners, attractive or not, but their food intake was not influenced by the presence of a male partner. These results suggest that men's food intake may have been most strongly influenced by the motive to appear socially appealing—although such a conclusion is entirely ad hoc—but reduced intake by males in the presence of females seems unlikely to reflect a motive to appear masculine. Research on consumption stereotypes does not clearly support a connection between meal size and masculinity (or femininity) for men (e.g., Chaiken & Pliner, 1987), and thus perhaps eating a particular amount is not a tactic available to men for bolstering their masculine image. Note also that Stein and Nemeroff (1995) found that female participants rated male targets who ate healthy foods as most physically attractive. Thus, eating-related motives among men are more likely to be centered on bolstering attractiveness and social appeal than masculinity.

Other researchers have also noted that different self-presentational strategies may be activated depending on the type of threat present in the immediate context (e.g., threat to competence or agency vs. threat to likeability or communion) (Paulhus & John, 1998). In a study by Mori et al. (1987, Study 2), women who had their femininity publicly threatened reduced their food intake. Presumably, if some other personal characteristic (e.g., competence) had been threatened, they may well have responded differently. A more thorough understanding of consumption stereotypes can lead in turn to a better understanding of how an individual might eat under various conditions of threat to self. Jones and Pittman (1982) have described several different forms of self-presentation (e.g., ingratiation and intimidation), and Leary and Kowalski (1990) noted different self-presentational motives that may influence the type of strategies used (e.g., efforts to obtain desired social and material outcomes, efforts to maintain self-esteem). Consideration of these types of motivational

influences and self-presentational strategies could be important in accounting for some of the observed differences in findings relating food intake to impression management, and can also serve as a framework for future research.

Awareness of audience values

Although motivation to convey a particular impression may be necessary for successful impression management, other factors also play a role. Successful impression managers must, to some degree, be aware of the values and preferences of the people with whom they are interacting, and project an image that is congruent with those preferences. Awareness of the different values held by different target audiences (or cultures) should lead impression managers to adapt their self-presentational tactics to accommodate those values. Indeed, it has been found that people adjust their self-presentations in accordance with the preferences they believe their partners hold (von Baeyer, Sherk, & Zanna, 1981; Zanna & Pack, 1975). Thus, people's eating may be expected to coincide with the perceived values and preferences of those with whom they are interacting. For example, consider a woman interacting with a desirable male; if she believes that he values the standard female gender role, she should adjust her food intake by eating a small (or a low-fat) meal in order to portray an image that accords with her partner's values, but if he expresses a preference for females who do not adhere to the traditional feminine role, then she would be well-advised to think twice about eating lightly. This process is further complicated when one considers the role of other factors, such as the target's self-concept and the social desirability of the observer's values, in influencing whether or not an individual will conform to these expectancies (see Deaux & Major, 1987).

Awareness of associations between behavior and image

Some behaviors directly convey a particular impression, whereas other behaviors are more subtly related to a given impression (Leary, 1995). For example, while slam-dunking a basketball directly conveys an impression of basketball ability, what one has for lunch is much more subtly related to one's image of intelligence or social appeal. To convey a desired impression in this less obvious domain, one must have an implicit theory (stereotype) about the relation between the behavior and the impression. For example, a woman trying to convey an image of enhanced femininity by reducing her food intake must be cognizant of the stereotypical association between minimal eating and femininity. This same principle should also extend to the desire to convey any other particular impression, which must be based on the knowledge or belief that a given behavior is stereotypically related to this desired impression. Integrating the study of consumption stereotypes with the study of impression management is thus crucial for a complete understanding of the use of food intake as a self-presentational tactic.

Normally, attempts to impress others are based on accumulated experience regarding which behaviors create which impressions; but it must be acknowledged that the implicit correspondence of particular behaviors and particular impressions may not apply to every member of one's audience. It is conceivable, then, that impression-management concerns and efforts will differ as a function of the varying stereotypes held by the people one is trying to impress. In short, not everyone necessarily holds the same stereotype. In order to maximize the chances of making a good impression, therefore, one must adjust one's behavior to take the stereotypical beliefs of one's particular audience into account. That is, one must consider not only the audience's values, but also the behaviors that they stereotypically associate with those values. Research has shown that obese participants eat less in the presence of a normal-weight partner than in the presence of an obese partner (de Luca & Spigelman, 1979; Maykovich, 1978), and women eat less in the presence of a dieter than in the presence of a non-dieter (Polivy et al., 1979). Although these studies did not examine assumptions about partner beliefs, it is plausible that participants perceived dieters and obese individuals to have different consumption stereotypes than do normal weight non-dieters, and adjusted their eating behavior to exploit these different stereotypes. Inaccurate perceptions of or assumptions about the stereotypes of one's partner, however, would probably result in self-presentational failure (and consequent embarrassment; see Miller & Leary, 1992). The process of matching one's impression-management efforts with awareness of consumption stereotypes is complicated by the fact that there may also be individual, group, or cultural differences in how various foods or other parameters of eating are perceived (as noted above with respect to "good" foods and "bad" foods), and by the fact that there are sometimes ambivalent attitudes associated with a particular dimension of food intake (such as when consumers of low-fat foods are perceived as being both morally superior and less sociable).

We have outlined a number of factors that can influence whether, when, and how individuals modify their food intake as an impression-management tactic. The impact of these factors must be tested empirically, for example in studies that manipulate individuals' level of motivation to manage the impressions that they convey and their perceptions of the audience's values, and in studies that examine the consumption stereotypes held by the eaters themselves.

Self-image, eating habits, and disordered eating

To this point we have discussed the deliberate use of food intake as a means of conveying a particular impression to others, but it is possible that individuals could modify their food intake in order to influence their own self-image as well. Early conceptions of self-presentation viewed impression-management concerns as depen-

dent on the presence of an audience (Goffman, 1959), but acknowledged that this audience could be real or imagined (Schlenker, 1985) and could be one's self as well as the people with whom one interacts (Greenwald & Breckler, 1985; Hogan, Jones, & Cheek, 1985; Schlenker, 1985). According to this perspective, people are often motivated to view themselves in a particular and favorable manner, and may therefore use impression-management strategies to portray a desired image to themselves as well as to others. Accordingly, a woman may eat minimally if she wishes to bolster her feminine self-image, even when her only audience is herself.

In addition to the deliberate or conscious use of food intake for impression management, consumption stereotypes might also affect behavior on a less conscious level. For example, an individual's public impression-management techniques may have become so well-learned and habitual that they become mindless habits that carry over into the individual's private sphere (Leary & Kowalski, 1990), with the result that people's habitual eating patterns come to mirror their self-presentational strategies. Thus, while alterations in eating habits may have begun as public impression-management tactics, they may in time become a part of the individual's routine pattern of behavior. Similarly, what may have begun as a conscious attempt to influence others may develop over time into a self-construal that is honestly held by the individual, a self-construal that is perhaps akin to self-deception as described by Paulhus and his colleagues (Paulhus, 1984; Paulhus & John, 1998). The desire to maintain or bolster this self-construal could in turn influence individuals' food intake, albeit at a less conscious level.

These routes to chronic alterations in food intake are based on the internalization of common consumption stereotypes, and may in part contribute to the development or maintenance of disordered eating behavior, especially insofar as they require restricted eating. We noted earlier that individuals with eating and weight concerns are more likely to make judgments of other people's body weight on the basis of their food intake. We might expect, therefore, that they would also be more likely to restrict their *own* food intake in certain situations if they believed that others would perceive *them* as being thinner. Moreover, consumption stereotypes might contribute to individuals' self-evaluations (including their body image). For example, there is some evidence that bulimic patients perceived themselves as being heavier after consuming a candy bar (McKenzie, Williamson, & Cubic, 1993), and that individuals with high levels of eating-disorder pathology perceive themselves to have gained weight after simply *imagining* that they have consumed a forbidden food (Shafraan, Teachman, Kerry, & Rachman, 1999). Thus, restricted food intake may also be a means of enhancing one's own body image. Exploiting consumption stereotypes to create or maintain a self-image (consciously or unconsciously) might therefore be an additional factor that can contribute to chronic dieting or even eating disorders (see also Leary,

Tchividjian, & Kraxberger, 1994). It would be important to examine the extent to which consumption stereotypes, and the use of food intake for impression management, affects individuals' eating habits and contributes to disordered eating behavior. In addition, determining whether consumption stereotypes and related impression-management efforts can be modified to encourage healthier eating patterns would be a valuable addition to the clinical literature.

Impression management and unhealthy diets

In addition to the implications of consumption stereotypes and impression-management efforts for restricted food intake and eating-disordered behavior, it is important to consider other potential implications. For example, to what extent do consumption stereotypes and impression-management concerns influence the diet choices of children and adolescents? In light of the growing concerns with childhood obesity, this is a question of particular importance. Recall that research on consumption stereotypes indicates that individuals who eat unhealthy foods are perceived as being more sociable and more fun to be with than are individuals who eat healthy foods. We have also detailed the role of motivation in impression management. If impression-management concerns among children and adolescents are more focused on being seen as likeable and fun to be with (as opposed to morally righteous and intelligent), then they might choose unhealthy foods (e.g., potato chips and soda) over healthy foods (e.g., an apple) as a means of satisfying their impression-management motives.⁴ Future research is needed to understand the consumption stereotypes and related impression-management concerns of children and adolescents. In addition, because children's beliefs and stereotypes about various foods are still in the process of being formed (Oakes, Sullivan, & Slotterback, in press), it would be beneficial to evaluate intervention efforts aimed at modifying children's consumption stereotypes (e.g., using celebrity spokespersons) as a means of promoting healthier diet choices.

Conclusion

The notion that "you are what you eat," which may have been taken literally in centuries past, still permeates modern Western society. We have described a body of literature that has consistently found that people form impressions of others on the basis of what (and how much) the other eats. These impressions pertain to characteristics that range from gender roles and social appeal to health and weight. Further research is needed to define more clearly some of these consumption stereotypes, particularly as they relate to men and masculinity. Of particular importance, though, is the impact that these consumption

stereotypes have on people's eating behavior. We have seen that situational eating behavior may be modified or constrained according to the impression that one is motivated to convey, and we have argued that such impression-management efforts depend on consumption stereotypes. The internalization of these consumption stereotypes may also further perpetuate patterns of restricted food intake or other unhealthy eating habits. It would be particularly important for future research to explore further the ways in which people modify their own food intake in order to convey desirable impressions to others and to themselves, and to identify the motives, goals, and beliefs that underlie their impression-management efforts. Beyond the consumption stereotypes described in the present paper, it would be valuable for researchers to explore how stereotypes drive intake in other realms of appetitive behavior (e.g., drinking, smoking), and how an understanding of these stereotypes can be incorporated into intervention and prevention efforts. What the current review makes clear is that consumption stereotypes are a widespread yet under-acknowledged influence on both person perception and behavior.

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⁴One of us had a friend in high school who would try to endear himself to others by ordering "chocolate cherry cheesecake and a glass of cream."

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