

Who We Are and How We Eat: A Qualitative Study of Identities in Food Choice

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ABSTRACT

Objective: The study sought to develop a theoretical understanding of identities related to eating.

Design: A grounded theory approach and open-ended, in-depth interviews were used to examine identity and eating from the perspectives of adults.

Participants: Seventeen middle-class, white adults (nine women, eight men) were purposively recruited to vary in gender, age, household composition, and ways of eating using convenience and snowball sampling.

Data Analysis: Interview transcripts were analyzed using the constant comparative method.

Results: Identities involved in participants' food choices related to usual or preferred eating behaviors, personal traits, reference groups, and social categories. Participants varied in the number, type, and complexity of identities involved in eating. Identities were reported to be both stable and dynamic over time and were shaped by participants' life course experiences. Participants varied in the attention they paid to evaluation and monitoring of identities related to eating, the extent to which they enacted identities in eating, and how they managed identity conflicts.

Implications: The concept of identity may help researchers understand food choice processes and assist practitioners in recognizing the multiple meanings that people bring to and derive from eating.

KEY WORDS: identity, food choice, health behavior, grounded theory, social influences, food behavior

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INTRODUCTION

The complex question of why people eat as they do continues to be of great interest. Many professionals and policy makers advocate changes in food practices among Americans for health, safety, or environmental reasons, yet success in achieving these planned changes is often elusive.¹ Food choice has long been recognized as a process that involves psychological, social, cultural, economic, and biological forces.^{2–4} Over a lifetime, these forces interact with a person's life course events and experiences to result in individual preferences (such as taste) and other considerations (such as convenience or monetary considerations), which shape food behavior.^{5–8} However, existing paradigms for food choice provide only limited guidance for understanding the inter- and intraindividual variability in dietary behavior, and new approaches to understanding the psychosocial processes involved in food choice are needed.⁹

The current study was undertaken because identities related to eating emerged as an important personal characteristic in an earlier qualitative study of food choice among a diverse sample of adults living in an urban environment.^{7,10} When asked open-ended questions about their food practices, the study participants often volunteered descriptive phrases, such as "I am a meat and potatoes person" or "I am a salad lover." In that study, ethnic identities interacted with other identities such as region, class, or family in shaping food choice.¹⁰ The researchers became intrigued with the possibility that the concept of identity, the self-images that people hold, may be useful in furthering understanding of food choice. However, the earlier study did not involve in-depth inquiry about self-images and eating to yield conceptual understanding of identities related to eating. Thus, the researchers undertook a study focused on gaining a theoretical understanding of identities related to eating. The researchers aimed to develop a conceptualization of identity that was grounded in the ways in which people constructed their life experiences, an approach consistent with the use of narratives to understand the nature and operation of self-images in everyday life.¹¹

The concept of identity has received wide attention in the social sciences from many perspectives^{12–14} and has been studied as both object (what it is) and process (how it oper-

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ates).^{12,14} Identity is generally considered to involve the mental self-images that a person assigns to herself/himself based on everyday interactions with people, groups, and objects. Identities reflect multiple layers of meaning that are cultural, structural, social, and individual in origin.^{12,15-18} Personal identities relate to particular traits or descriptors,^{12,19} including perception of one's own attitudes, feelings, and behavior. Social identities relate to the collective group categories (such as Northerner or Southerner) to which a person assigns herself/himself^{12,20,21} and to the social roles a person occupies (such as mother or daughter).²¹

People manage their multiple identities by assigning greater importance to some identities rather than others and by enacting different identities in different situations.^{12,20,22} Identities can be both stable and fluid over time,^{12,23,24} resulting in a person's having past and current identities.²⁵ People establish, monitor, and work on their identities throughout life.^{11,26} Use of food has long been recognized as a way that a person assigns identity to herself/himself and others^{2,27} by what is considered edible, types of foods liked and disliked, and methods of preparation. In Western societies, the body has become a marker for personal and social identity, with a healthy and fit body equated with self-control, self-denial, and willpower.²⁶

In the existing studies of identities related to eating, only a narrow range of identities has been examined, and investigators generally have predetermined the identities under investigation. Studies of identity and eating have focused on gender,^{28,29} personality traits,^{30,31} ethnicity and region,^{10,32,33} vegetarianism,³⁴⁻³⁷ organic food use,^{38,39} beef eating,⁴⁰ and dietary change for health promotion or illness management.^{31,41-43} The identity concept has also been applied to the study of weight, body image, and eating disorders.⁴⁴⁻⁴⁸

METHODS

This study used a constructionist perspective,⁴⁹⁻⁵⁴ which assumes that multiple views of reality exist and attempts to understand the social construction of reality from the viewpoint of the study participants. This perspective investigates the phenomenon of interest (ie, identities related to eating) using a holistic perspective that emphasizes understanding and describing the context for all aspects of the investigation. The findings of a constructionist study reflect the inseparable relationship between the experiences and understandings of the participants as seen through the eyes of the researchers.

The study also used a grounded theory approach^{53,54} because it examined the topic of investigation from the point of view of the participants while relating emergent findings to existing theoretical perspectives. This study was theory oriented⁵⁵ in its goal of developing a conceptual understanding of identities related to eating and use of existing theories to interpret data. The grounded theory and theory-oriented approaches have been used successfully in other

studies to understand food behavior and participants' responses to nutrition interventions.^{5,7,10,56-58}

The study was conducted using focus groups and in-depth interviews with adults residing in one county in New York that contains rural, suburban, and urban areas. All procedures to recruit and involve study participants were approved by the University Institutional Review Board Committee on Human Subjects. Initially, two focus groups⁵⁹ were held to explore approaches to interviewing adults about identity and eating. One author, a trained and experienced focus group leader, conducted separate groups for women (n = 6) and men (n = 8). A convenience sample of university employees varying in occupation, age, education, and household composition was used. The focus group discussions indicated that asking participants directly about identities related to eating was confusing to participants, but that asking about "kinds of eaters" or "types of eaters" yielded descriptive phrases that provided useful information related to identities. In the focus group setting, participants appeared to be hesitant to speak in depth about their own or others' identities related to eating, so the range of identities that emerged was limited. Focus groups also did not allow participants to provide the rich descriptive information about their individual situations and practices that was necessary to explore identities related to eating with the goal of developing conceptual understanding. Thus, individual, in-depth interviews were used for the main data collection for this investigation.

In-depth interviews were conducted with a convenience sample of 17 adults initially recruited to vary in gender, age, and household composition. Prospective participants were identified through the social networks of the researchers and by snowball sampling through the acquaintances of study participants. When approximately half of the sample had been interviewed, the investigators reviewed the participants' characteristics and self-reported ways of eating. Additional participants were then recruited to increase the diversity of characteristics and ways of eating represented in the sample. Variation was sought in salience of eating, extremeness of eating patterns, frequency of eating away from home, interest in cuisine, and concern for health. As the need for participants with new characteristics was identified, the interviewer searched until a person likely to have the desired characteristic was found. Sample extensiveness⁶⁰ was judged to be adequate when recruitment of new participants provided few additional insights and theoretical saturation was reached.⁵⁴

The nine women and eight men who participated in the interviews were all white, born in the United States, and middle class. They ranged in age from 25 to 89 years old (mean = 47 years) and represented a variety of household types and occupations (Table). The author who conducted the interviews was trained and experienced in qualitative interviewing methods. Interviews lasted from 45 minutes to 1 hour and were audio-recorded and transcribed verbatim. Participants reported gender, age, years of education, and household composition on a demographic questionnaire.

Field notes taken by the interviewer were used to provide a context for the interviews.

The interviewer used a semistructured guide that asked participants open-ended questions about personal food patterns, life experiences related to food, changes in eating habits, self-descriptors concerning food, and comparisons of her/his ways of eating with ways of other household members, family members, and friends. Interview questions included the following: "Tell me how you manage food and eating for yourself." "How do you handle food and eating for your family?" "How would you describe the kind of eater you are?" "Describe your personality a bit. What do you do for fun?" "Are you a person who likes familiar things? Different things?" "How would the people closest to you describe the kind of eater you are?" "What kind of eater would your mother say you were?" "Have you always been this kind of eater?" "How have you changed?" "What kind of eater would you like to be?" "Is there a kind of eater that you could never be?"

Open-ended questions were followed with probes, such as "Tell me more about that" or "Explain that further." The interviewer probed for sufficient descriptive information from each participant about her/his food practices and eating situations to provide contextual information for understanding the ways in which the person described herself/himself. The investigators discussed each interview shortly after it was completed and made suggestions for future interviews, with subsequent interviews probing more deeply into themes emerging in earlier interviews. Second interviews were conducted with the first four participants to confirm interpretation of information from the first interview as a form of member check to enhance data credibility and authenticity.^{51,61,62}

Analysis of the transcripts employed the constant comparative method,^{50,54} which was conducted continuously throughout the study. All authors read and coded interviews for emergent themes related to identity. Each interview was discussed at weekly research meetings by the four authors, with rereading of transcripts occurring when authors did not agree about the coding or interpretation of an interview. First, interview transcripts were coded for the words and phrases that participants used to describe themselves as eaters and the examples of eating practices and contexts that participants reported that were associated with these descriptors. A summary sheet was prepared for each participant. The summary included demographic information, salient attributes of the participant's current and past eating situations, phrases that the person used to describe herself/himself as an eater currently and in the past, and examples of food practices the person reported that accompanied these descriptive phrases. A personal descriptive schematic⁶³ was also drawn for each participant to represent the relationships the participant reported between the phrases she/he used to describe herself/himself as an eater and her/his life course experiences, eating environments, and practices. The four authors reviewed each summary sheet

Table 1. Characteristics of Study Participants

Characteristic	Participants (n)
Age (yr)	
25-29	1
30-39	4
40-49	9
50-59	1
80-89	2
Gender	
Male	8
Female	9
Marital status	
Never married	2
Married	10
Divorced	4
Widowed	1
Household composition	
One adult	3
Two adults	5
One adult and 1 child	2
Two adults and 2-4 children	7
Occupation	
Skilled trades	6
Teaching, counseling, child care	6
Business, clerical, computing	4
Other	1

and discussed each case until consensus was reached about the types of identities that were involved in each case and the ways in which identities operated in each person's eating. Examination of all cases indicated that the data related to identity clustered into two main categories. The many descriptive phrases participants reported were listed and labeled as "types of identities." Participants' reports about how they came to describe themselves in these ways and how these descriptors related to their eating practices were clustered and labeled as "identity processes." As new concepts emerged related to types of identities or as new processes emerged whereby identities related to eating operated in the lives of the participants, the researchers checked the transcripts and summary sheets of all previously reviewed cases to see if the newly identified descriptors or processes were reported in the earlier interviews.

Analysis then focused on developing conceptual categories for the types of identities that emerged across participants and for the processes whereby identities were related to eating. Initial categories were developed and revised in an iterative process that involved repeated reading of the transcripts and summary sheets until all authors agreed and all cases fit with the interpretation. A preliminary conceptualization for the ways in which identity is involved in food choice was developed, checked with all cases, and revised in

an iterative process so that the conceptualization fit with all cases. Then diverse identity theories from the social sciences were examined in depth to assist with the interpretation of the findings, including the naming of the categories for types of identities and the naming of the processes. The resulting conceptualization was again checked to be sure that the conceptualization fit with all cases.

Quality of the data interpretation was enhanced through participation of the interviewer in the analysis and review of the interviewer's detailed field notes. Credibility of the analysis was sought through the use of an audit trail (log of analytical notes), involvement of four researchers in the analysis, and peer debriefing through presentation of findings to other researchers interested in food choice.⁵¹

RESULTS

Conceptual Model The conceptual model that emerged from the data to explain how identities are related to eating is presented in the Figure. The identities or mental self-images people held related to eating existed in a reciprocally determinant relationship with eating in that identities were derived from and also shaped eating. People held many different types of identities related to eating, including identities related to eating practices, other personal characteristics, and reference groups and social categories. The variation that existed in the numbers, types, and complexities of the identities that people held resulted in people having individualized sets of identities.

The conceptualization of identities also included three processes whereby identities were related to eating, and people varied in these processes. Development and revision of identities related to eating involved the ways in which a person acquired self-images over time and the stability or transition in these identities over time. The process of evaluation and monitoring involved the extent to which a person consciously reflected about eating related to her/his identities and used this examination to evaluate herself/himself. Enactment of identities in eating was the third process that emerged from this study, with relative consistency and rigidity being dimensions of enactment on which individuals varied.

The mutually shaping relationship that identities had with eating existed over a person's life course and was influenced by the environments in which the person lived. The types of identities that a person held related to eating, the stability or transition in these identities, and the processes whereby these identities were involved in eating were shaped by the person's life course events and experiences through which the person constructed meanings and categories for food and eating.

Types of Identities Participants reported many different types of identities related to eating in the interviews. They described themselves with words and phrases that spanned many different aspects of food and eating and included iden-

ties related to (1) eating practices, (2) other personal characteristics, and (3) reference groups and social categories.

Identities related to eating practices. One of the most frequently mentioned types of identities related to the *range of foods* that a person viewed as acceptable. Being a "picky eater" or a "person who would eat anything" was a very salient food-related identity for many participants. Eating "what's put in front of me" was generally viewed as desirable, whereas being "picky" or "fussy" often had a negative connotation. Being "picky" usually meant having a limited range of acceptable foods or being unwilling to try new foods, although one participant used "picky" to describe her high standards for food and preference for well-prepared and attractively presented foods.

Some participants identified themselves in terms of *types of foods* that they consumed or preferred, using words such as "junk food junkie," "rice and vegetable point of view," "fast-food eater," "meat and potatoes guy," and "good milk drinker." Another type of descriptor related to *types of meal pattern*, such as a "three-meals-a-day person" or "not a breakfast eater." *Quantity of food eaten* was another identity mentioned. A participant with a big appetite called himself a "hearty eater." *Consistency of food practices*, such as in food consumption patterns or in types of foods eaten, was another dimension mentioned. Some participants reported being "stable" or "regular" eaters, but one man described his eating practices by saying that "there's no consistency at all."

Identities related to other personal characteristics. Many participants used descriptors for their identities related to eating that reflected self-images of personal attributes other than their eating practices. Many types of identities were grouped in this category, including identities that related to the personal attributes of values, personality, emotions, physiology, and expertise. The following sections describe these identities in order of the commonality in which study participants reported them.

All participants discussed their *orientation toward health* when describing themselves as eaters. If the participant did not volunteer information about health, the interviewer probed about whether the person saw herself/himself as a healthy eater. For some people, being a healthy eater was a very salient identity and a source of self-esteem, self-expression, and accomplishment. For example, one woman proudly said, "I'm probably the most health-conscious eater in the family." Other participants saw health as a desired outcome of eating but indicated that being a "healthy eater" was much less important to them, and for some this identity was problematic. For example, one man with a heart condition had modified his eating practices for health, although he did not like being a "healthy eater."

Body image was a salient dimension of identity for some people. For example, one woman said that she was very conscious about not gaining weight when she ate and purchased the family's food.

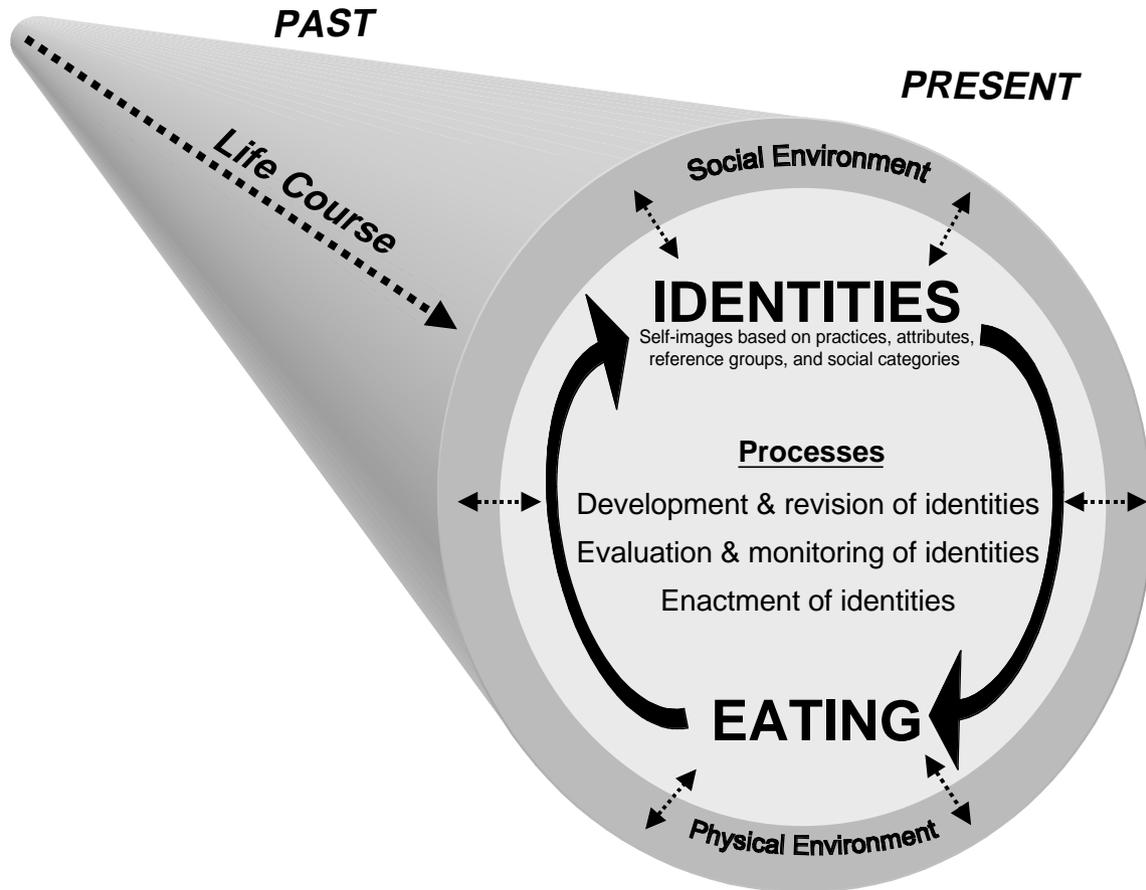


Figure. Conceptual model for the relationship of identities to eating.

Control was a dimension of identity for some people and related to the amount of discipline a person did or did not exert in eating situations. One man reported usually being an “impulsive eater” but at times “very restrictive.” A participant who enjoyed motorcycling and seemed to reject cautious living in general said, “There’s no dietary restriction that I place on myself.”

Satisfaction and gratification derived from eating were another source of identity used by participants. Sensory rewards seemed to be highly valued by some participants. For example, one man described taste as the most important attribute of eating. A woman who said that her family would call her an “enthusiastic” eater explained, “You’ve got to have some pleasure in life, and that [food] is one of my big ones.” The involvement of emotional rewards was another type of identity. For example, one woman described herself as a “comfort eater.”

The *salience of food* to participants was the way in which some individuals identified themselves, for example, “I love to eat” or “I love to cook.” In contrast, food and eating were unimportant parts of other participants’ lives, for example, “I don’t think about it [eating].... I don’t ever think about it. Not a priority.”

Degree of *flexibility* in eating situations was another personal trait by which some participants described themselves.

One woman explained that personality was related to her eating style: “I think that our eating style is the way our lifestyle is... We’re both fairly calm people and we’re both kind of laid back, and I think our eating habits have something to do with that.”

Perceived *physiologic attributes* also influenced identities related to eating. One woman explained, “I have a nervous stomach.... I can’t eat anything spicy, anything with onions, anything with a whole lot of taste.” Being sick or at risk of a health problem was another identity that some participants brought to their eating practices.

Some participants described themselves in terms of how food related to other types of values or special types of expertise or accomplishment. One woman described herself as a “self-sufficient eater.” She and her husband hunted, gathered, or grew nearly all of the food that they ate because they did not want to have to rely on others for food. Another woman who considered herself to be highly knowledgeable about cuisine said, “I know what good food is.”

Identities related to reference groups and social categories. The identity descriptors used by participants often related to *normalcy*, a qualifier revealing how common or extreme a person saw herself/himself compared with other people. One very health-conscious person said that he

used to be an “average eater” or “normal eater.” To him, this meant eating three meals a day with a variety of foods. When describing themselves, most participants did not present themselves as extreme. For example, a participant who described herself as a healthy eater also said, “I try the best I can, but I’m not fanatical about it by any stretch.” However, one man described his eating patterns as unusual, saying, “I’m probably the strangest eater of anybody.”

Interpersonal relationships and roles were sources of identities related to eating for some people. An older woman who lived alone and was cared for by paid companions saw herself as a person who did not eat large quantities and varieties of foods. She came to this view because her caregivers and family members were always trying to get her to eat a greater quantity and variety of foods. One mother who saw her role as being a model for her children expressed concern that her own restrictive eating practices were a poor example for her teenage daughter.

Group association was a source of identity for some participants. Associations included age, gender, occupation, interest groups, and social class. One participant said that she ate “what is normal for an older woman.” One woman said that she ate the way “hairdressers eat.” Being part of a “macrobiotic” community of eaters was a salient identity for one woman. Two participants who reported identities related to social class used these descriptors to disassociate from groups. One man reported that he was a “peasant eater,” referring to the hearty, delicious, but simple meals he ate in contrast to the more complex, costly, and pretentious meals of many other people. A college graduate who worked as a house painter described himself as having a “blue-collar” job. He reported consciously rejecting a more affluent lifestyle for an average working-class eating style.

Identity Processes Participants reported that their identities related to eating were involved in several processes: (1) development and revision, (2) evaluation and monitoring, and (3) enactment in eating practices.

Development and revision. Identities were developed from meanings and descriptors that participants had acquired over their lives to characterize their relationships with food and eating. Identities reflected participants’ individualized interpretations of the interactions among biological, psychological, social, and cultural aspects of food and eating. When describing their identities, participants compared their ways of eating with those of other people, the ways they held desirable, or their previous eating practices. The establishment and reformulation of identities related to eating required recognition of these differences and attentiveness to food and eating. Participants’ past and present environments limited or expanded the range of possibilities in the establishment and development of identities related to eating.

Being described by others was a common source of identities related to eating, and many participants mentioned descriptors they had acquired based on their childhood eat-

ing practices. For example, one participant said, “My mom would have described me as ‘very fussy.’” Adults also acquired identities related to eating based on descriptors assigned to them by spouses, family members, and coworkers.

Although some participants reported identities related to eating that had persisted throughout their lives, all reported some changes in their identities related to eating over time. A common type of change was increasing the range of acceptable foods as one got older. One participant said, “I’ll try anything now. I never used to.” Another person reported, “Years ago I wouldn’t eat anything hot, and I wasn’t particularly fond of any vegetable other than corn, and I didn’t really care for Mexican food. I never tried Chinese food. And I love and even cook all that stuff now.”

Life course events and experiences were explanations people provided for transitions in their identities related to food. New health concerns, such as becoming sick or recognizing the threat of illness, led some people to change their identities in relationship to eating. One man made a dramatic change to become a healthy eater because of the early death of his brother from heart disease.

New identities related to eating were sometimes established as people changed the values associated with eating as their personal relationships, roles, and responsibilities changed over the life course. For example, the woman who described herself as a “self-sufficient” eater said that she had made drastic changes in her cooking and eating practices when she married because her husband felt that it was vital to be self-reliant in terms of access to food. Another person whose values related to eating had changed was a man who “grew up in the sixties” who reported not eating meat in college. He then adopted a macrobiotic diet for a while but found that this practice interfered with his profession: “I couldn’t have lunch with clients because it wasn’t really possible to share meals...It was very constraining.”

Several participants reported multiple transitions in identities related to eating over the course of their lives. One woman who used to be a “picker” before she had a family said, “I used to graze, never ate.... I think when the kids are gone, I know that’s what’s going to happen. I’m not going to eat meals...I don’t like the feeling of being full.” She also described her experiences in a “granola phase” when her children were young when she had made baby food, grown a garden, and baked bread. Another woman who reported multiple identity transitions described herself as a gourmet vegetarian cook. She said that she was also a very careful eater, but not too rigid. She was “no longer vegetarian,” although she had been a strict vegetarian for many years and once had turned to macrobiotic eating to recover from an illness.

Evaluation and monitoring. When describing themselves as eaters, all participants used comparisons including other people, past identities, or the type of eater they aspired to be. For some participants, the ways in which their current identity compared to one or more of these reference points

seemed to be a particular concern to them, indicating that evaluation and monitoring of an identity were frequent. Identity evaluation and monitoring were sources of satisfaction for some participants, but for others the processes were sources of anxiety, guilt, and frustration. For example, a teacher who had changed his eating habits drastically to reduce his risk of heart disease expressed great satisfaction that he had maintained such improved eating patterns. He felt that he ate better than most of his family and the high school students whom he taught but had still not achieved the healthiest diet possible.

Another example of a participant for whom identity evaluation and monitoring seemed to be a concern was a single woman without children. She reported that although she felt glad that she was slim, she felt bad that she rarely ate regular meals because her work role, appetite, and single lifestyle made this difficult. She frequently referred to advice and comments that her boyfriend and her family made about her irregular and inadequate eating practices.

In contrast, identity evaluation and monitoring were of less concern for other participants even though they mentioned several identity comparisons. For example, an older woman for whom eating was not very salient reported that, compared with other people, she was more particular in terms of food and had a limited appetite. She felt this was normal for her age, and the comments of her family members and companions were not that troubling to her. For a married father of three children, the evaluation and monitoring of his identities related to eating seemed unimportant even though he had many identity comparisons. He perceived that many of his identities related to eating differed from those of his spouse, children, and coworkers. His current identities related to eating were also very different from a number of his past identities.

Enactment of identity. Some participants indicated overt and consistent efforts to enact their identities in eating practices. They described a commitment to these identities by consistently selecting or modifying food situations to enact what was important to them. These participants often invested a great deal of time performing their identities and also had the social support, time, and/or financial resources to do this. Some of these participants expressed frustration when they were in settings in which they could not eat as they would like. For example, a health-conscious participant who described himself as a vegetarian reported that he had brought his own food to his family reunion: "We got together...we were camping. The second day I didn't eat as well as the first day...I ran out of my stuff and by Sunday night I was [very unhappy]." He described feeling uncomfortable until he had resumed his restrictive, healthful habits for a week and felt his energy level improve. This experience strengthened his commitment to his identity as a health-conscious eater.

Other participants reported that they were willing to compromise their identities and that enactment of their

identities related to eating was very situational. These participants tended to have complex sets of current identities related to eating that resulted from many different experiences related to food that included multiple transitions in identities over their lives. For example, one man considered himself an adventurous, spicy eater with a sophisticated palate. His work, family activities, and children's preferences, however, did not allow him to eat the wide range of foods he enjoyed. At this time of his life, he accepted family restaurants and quick meals that accommodated his children's busy schedules. When he ate lunch by himself, he had developed a strategy for an interesting, satisfying, and light lunch by ordering take-out soup from the local Chinese restaurant.

Most study participants reported current identities related to eating that were consistent, but some people reported conflicts. An 89-year-old man referred frequently to the fact that he used to be a person who enjoyed eating and was a "seafood lover." However, a heart condition and a recent loss of ability to taste meant that he could not be the same kind of eater he used to be, which troubled him. He continued many of his long-standing food practices even though he could not taste these foods.

A conflict for two individuals was that they described themselves as impulsive, nonrestrictive food lovers who also valued health and fit body images. They associated healthful eating practices with discipline and bad-tasting food. One person said, "I love to eat," "I love to cook," and "I hate restrictions." They managed this conflict by cycling between periods of high restriction and periods of no restriction. One person felt comfortable with this approach, whereas the other reported feeling frustration.

DISCUSSION

This study sought to develop a conceptual understanding of identity related to eating. A constructionist approach and qualitative methods generated rich data regarding the nature of and processes involved with identities related to eating from the perspectives of the study participants. By using the grounded theory^{53,54} and theory-oriented⁵⁵ approaches, the researchers were able to develop a conceptual view that advances the understanding of the self-descriptive phrases that people volunteered in a previous study when asked about eating.^{7,10} The findings help fill a gap in the existing literature related to identities and eating, which consists primarily of quantitative studies of specific researcher-defined identities.³⁰⁻⁴³

Conceptualization of Identities Related to Eating

The conceptualization of identities related to eating that emerged in this study offers some new ideas for researchers and practitioners for thinking about the cognitions and feelings that people use and experience in eating. Although cognitions and feelings related to food and health have been a focus of much study in nutrition education research,⁹ this

investigation differed from many others because it focused on the images that people construct about themselves, how these mental self-images develop, and how these self-images operate in eating. The proposed conceptualization of identities related to eating encourages practitioners and researchers to view a person's food practices as an interaction of the person's sense of self with daily food activities, in addition to viewing eating as a reflection of a person's knowledge, attitudes, or sociodemographic characteristics.

A key feature of the proposed conceptualization of identity related to eating is the mutually shaping relationship that exists between a person's identities and eating. A person brings identities from other parts of life to eating, and identities result from a person's food choices as the person compares herself/himself with various salient reference points. In this way, identities related to eating are reflexive and dialectical in nature, as they have been characterized in the social science literature.^{13,64} Many identities described by study participants were based on self-observation and comparison of their usual eating practices against the ways of others or their own past actions. Thus, identities reveal how people judge themselves and how they feel judged by others. The formation of categories based on usual eating practices is consistent with the view that self-images are summarized concepts based on extensive information that one has derived over time about oneself.^{11,12,17,26,65,66}

The proposed conceptualization of identities related to eating emphasizes person-defined cognitions in contrast to cognitions established a priori by researchers or practitioners. The need to understand person-defined concepts and categories is supported by recent studies of ways in which people categorize foods⁶⁷ and define healthful eating.⁵⁸ As demonstrated by this study, people may have salient self-images that are not apparent or familiar to researchers or educators, such as the descriptors of "peasant eater" and "inconsistent eater" used by some study participants.

Several different types of identities related to eating emerged in the interviews, and the authors grouped them as "identities related to eating practices," "identities related to other personal characteristics," and "identities related to reference groups and social categories." The labels for these groupings were guided by social science conceptualizations of identities that view people as having both personal identities and social identities.^{12,19-21} The identities grouped as related to eating practices probably include a mixture of personal and social identities. They were grouped in this way because they were self-images described by participants in terms of food and eating practices. Other ways of grouping these identities are possible. The key message is that a person constructs her/his own identities related to eating and that the sources of these identities may be eating practices, personal characteristics, and reference groups and social categories.

Study participants did not report some identities described by other food and nutrition researchers, that is, ethnicity or regional background,^{32,33} environmentalist,^{38,39} or con-

sumerist.³⁹ Participants also did not mention the media as a source of identity, although the media has been recognized as a powerful source of self-images.^{68,69} One explanation for the absence of these themes in the data may be that they were not salient in the minds of the study participants. Ethnicity may not have been mentioned because all study participants were from the dominant culture. However, a qualitative study of the role of ethnicity in food choice reported that expression of ethnicity in food choice was highly variable because ethnicity was only one factor that participants reported to influence food practices.¹⁰ Another explanation for the absence of identities reported by other researchers is that responses related to self-images are always context dependent.¹⁹ A participant's reported similarity to or distinctiveness from others is influenced by the frame of reference in her/his mind at the time of questioning. Study participants may have held additional food-related identities that were not reported because these did not readily spring to mind in the interview or the interviewer did not ask directly about that identity.

Viewing people as having individualized, multidimensional sets of identities also provides a way to think about how individuals manage the many factors that shape eating. The conceptualization for identities related to eating that emerged in this study is consistent with the Food Choice Process Model,⁵⁻⁷ a multiple-perspective model of food choice that emphasizes the interaction of psychological, social, cultural, and biological factors with each other and with the life course processes of the individual in shaping food choice. The current study of identities related to eating advances this model of food choice by suggesting that one of the ways in which these multiple forces influence food choice is through the set of salient self-images that an individual develops. This conceptualization helps illustrate how people view food and eating as interacting with other parts of their lives including other personal characteristics (such as personality) and social self-images (such as gender, occupation, and roles).

The proposed conceptualization of identities related to eating may contribute to improved understanding of the within-culture variation in food practices that is currently poorly understood.⁷⁰ If people have individualized, multidimensional sets of self-images that are in a dynamic relationship with eating practices, then many different ways of eating are likely to exist, particularly in a society in which many meanings are involved in eating and many different ways of eating are possible.

Evaluative dimension of identities. The conceptualization that some identities related to eating may have strong evaluative dimensions and others may not is an insight that is consistent with some social science views of identity.¹² To understand or influence food behavior, it may be most strategic for researchers and practitioners to pay attention to identities that have strong evaluations. People tend to seek identities that they view as desirable and avoid identities that they view as negative.²¹

Several identities with strong evaluative dimensions emerged in this study. Most participants viewed being a “picky eater” as negative. This view may reflect study participants’ positive attitude toward eating a wide variety of foods for perceived health benefit. Alternatively, it may reflect the value placed on being adaptable and flexible in eating situations resulting from the importance of managing social relationships in eating as has been reported in other qualitative studies of food choice.^{5,6}

Being a “healthy” eater was generally viewed as positive among study participants. Few people described themselves as being the healthiest eater they could be, an indication of the high esteem assigned to being a healthy eater and the view that it is unattainable or possibly extreme. The involvement of health as a dimension of identity for many study participants is consistent with the widespread acceptance of striving toward health as a responsibility in Western societies.^{26,71,72} However, some participants in the study viewed being a healthy eater as highly desirable, whereas other participants viewed being a healthy eater as necessary for disease management or weight management but not desirable because it portrayed them as “sick” and conflicted with other identities they brought to eating. Practitioners may be better able to tailor communications with clients when they understand how clients view being a “healthy eater.”

Another identity that had a strong evaluative dimension among some participants was being a “controlled eater” versus an “impulsive eater.” Participants differed in which type of eater they saw as more desirable. The strong positive view of being a “controlled eater” among some participants is consistent with the emphasis placed on self-discipline, willpower, and self-denial as values in Western societies.^{26,71,72}

Being a “food lover” was also an identity with a strong evaluative dimension. The intensity with which this identity seemed to be held by some participants was related to their need or expectation for eating to be a pleasurable experience and reflects the importance of taste satisfaction, emotional rewards, fun, or relaxation as values associated with food and eating in society.^{73,74}

Finally, many participants used “normal” in their self-descriptions and expressed a desire to consider themselves as “normal” versus “extreme” with regard to eating. The common use of normalcy as a category for identity by participants and the positive evaluation of normal are consistent with studies reporting the use of more extreme exemplars when describing oneself.^{12,16,17,44}

Development and revision of identities related to eating.

The process of development and revision of identities that emerged in this study is consistent with studies that show that life course experiences are important in shaping current food practices.^{10,75} A person’s current identities related to eating are dependent on their past and present environments, their attentiveness to food and eating, and the recognition of differences. The stability and transition in identities over

time that were reported by study participants are also consistent with other views of identity.^{12,23,24}

Evaluation and monitoring of identities related to eating.

The process of evaluation and monitoring of identities that emerged in this study is consistent with views that people in Western societies feel a need to work on their identities^{15,26} and that people often seek identities that promote their self-esteem.¹² This conceptualization views people as varying in the attention that they pay to their identities related to eating and the importance of these identities to their self-esteem. Study participants seemed to pay different levels of attention to the evaluation and enactment of their identities related to eating. Identities related to eating were sources of self-esteem to some people, significant threats to self-esteem for others, and neutral in their impact on self-esteem for other individuals. Practitioners may gain improved understanding of a client’s food practices and considerations in food choice by learning about how a person evaluates and monitors her/his identities related to eating.

Enactment of identities related to eating.

Considering food practices as involving the enactment of identities is useful for researchers and practitioners interested in food choice. This view helps to explain the situational variation in food practices that occurs within and among individuals because the process of enacting identities in eating may vary across individuals and within individuals situationally. Some study participants reported purposeful and consistent enactment of their identities in eating in most situations, whereas other participants reported willingly compromising their identities in various situations.

The conceptualization that emerged in this study portrays the enactment of identities in eating as sometimes involving an emotional response when the circumstances do not allow a person to enact an identity as she/he intended. The involvement of emotions in self-images has been addressed in a previous study.⁷⁶ However, not all study participants with strong identities became distraught when they could not enact a desired identity in eating situations. Possible explanations for the different emotional responses that participants reported may lie in the self-schema view of identities,^{22,77,78} which emphasizes the individual variation in number, availability, complexity, and accessibility of identities.⁴⁸ An individual with a more complex set of identities related to eating may have many different potential identities to call on in different food situations, enabling her/him to find an identity related to the situation in which to express a positive self. In contrast, a person with a more limited set of identities related to eating may have a difficult time in some situations finding a positive identity on which to call.

Study participants who reported conflicts in identities related to eating provided interesting cases through which to explore the enactment of identities in eating. These individuals reported self-images as “food lovers” who wanted to be “nonrestrictive” eaters but also saw themselves as individu-

als who valued health and fitness. A source of conflict for these individuals was that they associated healthful eating with restriction and low palatability. They reported enacting these different identities by cycling their food behavior patterns drastically—a satisfactory solution for some but a source of stress for others. One approach to managing conflicts in identity is to change the meaning of an identity so that it is viewed positively and supportive of a person's self-esteem.¹² A health promotion approach that portrayed healthy eating as nonrestrictive and very palatable might enable these individuals to reduce this conflict.

Study limitations. This study was a first attempt at developing a conceptual understanding of identities related to eating. Limitations of this study include its small purposive sample of adults in one location in the United States who were white and middle class. Culture, region, the local food system, and socioeconomic status influence the nature and salience of the meanings that people assign to food and eating and the ways in which identities operate. The detail that is presented about the study setting, orientations of the researchers, methods, and participants will help the reader interpret the findings. The interviews were conducted with individuals who were willing to talk about their self-images related to eating. Although the interviewer attempted to collect detailed data, the possibility exists that some participants did not recall or did not report important aspects of eating or revealed only what they perceived was socially desirable. In spite of these limitations, many variations in the content and operation of participants' identities related to eating were found that allowed exploration of identity as a concept.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The concept of identity related to eating warrants further investigation because it appears to have the potential to provide useful insights for both research and practice. Additional research addressing the theoretical aspects of identity related to eating is needed. Theory-guided,⁵⁵ grounded theory^{53,54} studies with other individuals varying in age, socioeconomic status, region, race, and ethnicity would be useful. Valuable insight for health professionals about identities related to eating would be gained by studying individuals living with diet-related diseases in contrast to healthy individuals. The understanding of identity and eating would also benefit from multiple interviews with individuals over a prolonged period of time. The rich social science literature related to identity can provide guidance for the development and interpretation of these studies.

The concept of identity may provide health professionals with a better understanding of clients' predispositions⁷⁹ that may influence their attention and response to nutrition messages. Learning about the identities that clients bring to and derive from eating can help practitioners to think about food

through the eyes of their clients and forces practitioners to see beyond their own personal or professional meanings for food and eating. Identities related to eating reveal what is of concern to clients, how clients organize food according to their own preferences, how they express themselves through food, and the ways in which they manage eating situations. The open-ended questions used in this study may serve as a guide for practitioners to explore the nature and operation of identities related to eating with clients. The health professional can then use this information in tailoring nutrition interventions⁸⁰ to the clients' situations and needs.

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REFERENCES

1. Girois SB, Kumanyika SK, Morabia A, Mauger E. A comparison of knowledge and attitudes about diet and health among 35- to 75-year-old adults in the United States and Geneva, Switzerland. *Am J Public Health*. 2001;91:418-424.
2. Fischler C. Food, self and identity. *Social Science Information*. 1988;27:275-292.
3. Meiselman HL, MacFie HJH, eds. *Food Choice, Acceptance and Consumption*. London, England: Blackie; 1996.
4. Rozin P. Human food selection: why do we know so little, and what can we do about it? *Int J Obes Relat Metab Disord*. 1980;4:333-337.
5. Falk L, Bisogni C, Sobal J. Food choice processes of older adults. *J Nutr Educ*. 1996;28:257-265.
6. Furst T, Connors M, Bisogni C, Sobal J, Falk L. Food choice: a conceptual model of the process. *Appetite*. 1996;26:247-265.
7. Devine C, Connors M, Bisogni C, Sobal J. Life course influences on fruit and vegetable trajectories: a qualitative analysis of food choices. *J Nutr Educ*. 1998;31:361-370.
8. Connors M, Bisogni C, Sobal J, Devine C. Managing values in personal food systems. *Appetite*. 2001;36:189-200.
9. Baranowski T, Cullen KW, Baranowski J. Psychosocial correlates of dietary intake: advancing dietary intervention. *Ann Rev Nutr*. 1999;19:17-40.
10. Devine C, Sobal J, Bisogni C, Connors M. Food choices in three ethnic groups: interactions of ideals, identities and roles. *J Nutr Educ*. 1999;31:86-93.

11. McAdams D. Narrating the self into adulthood. In: Birren J, Kenyon G, Jan-Erik R, Schroots J, Torbjorn S, eds. *Aging and Biography: Explorations in Adult Development*. New York, NY: Springer Publishing Co; 1996: 131-148.
12. Abrams D. Social identity, self as structure and self as process. In: Robinson WP, ed. *Social groups and identities: developing the legacy of Henri Tajfel*. Oxford, England: Butterworth-Heinemann; 1996:143-168.
13. Abrams D, Hogg MA, eds. *Social Identity and Social Cognition*. Oxford, England: Blackwell; 1999.
14. Ashmore RD, Jussim L, eds. *Self and Identity*. Vol. 1. New York, NY: Oxford University Press; 1997.
15. McAdams DP. Personality, modernity, and the storied self: a contemporary framework for studying persons. *Psychol Inquiry*. 1996;7:295-321.
16. Kihlstrom JF, Cantor N. Mental representations of the self. *Adv Exp Soc Psychol*. 1984;17:1-47.
17. Bruner J. The meaning of self in cultural perspective. In: Bakhurst D, Sypnowich C, eds. *The Social Self*. London, England: Sage; 1995:18-29.
18. Caplan P, ed. *Food, Health, and Identity*. London, England: Routledge; 1997.
19. Doise W. Social representations in personal identity. In: Worchel S, Morales JF, Paez D, Deschamas J, eds. *Social Identity: International Perspectives*. London, England: Sage; 1998:13-23.
20. Deaux K, Ethier KA. Negotiating social identity. In: Swim JK, Stangor C, eds. *Prejudice: The Target's Perspective*. San Diego, Calif: Academic Press; 1998:302-323.
21. Hogg M, Terry D, White K. A tale of two theories: a critical comparison of identity theory with social identity theory. *Soc Psychol Q*. 1995;58:255-269.
22. Markus H. Unresolved issues of self-representation. *Cognitive Therapy and Research*. 1990;14:241-253.
23. Frable D. Gender, racial, ethnic, sexual, and class identities. *Ann Rev Psychol*. 1997;48:139-162.
24. Demo D. The self-concept over time: research issues and directions. *Ann Rev Sociol*. 1992;18:303-326.
25. Markus H, Nurius P. Possible selves. *Am Psychol*. 1986;41:954-969.
26. Peterson A, Lupton D. *The New Public Health: Health and Self in the Age of Risk*. London, England: Sage; 1996.
27. Mennell S, Murcott A, van Otterloo AH. *The Sociology of Food: Eating, Diet and Culture*. London, England: Sage; 1992.
28. Counihan C. Female identity, food, and power in contemporary Florence. *Anthropology Quarterly*. 1988;61:51-62.
29. Schafer RB. The self-concept as a factor in diet selection and quality. *J Nutr Educ*. 1979;11:37-39.
30. Saddala E, Burroughs J. Profiles in eating: sexy vegetarians and other diet-based social stereotypes. *Psychology Today*. 1981;15:51-57.
31. Lindeman M, Stark K. Pleasure, pursuit of health, or negotiation of identity? Personality correlates of food choice motives among young and middle-aged women. *Appetite*. 1999;33:141-161.
32. Kalcik S. Ethnic foodways in America: symbol and the performance of identity. In: Brown LK, Mussell K, eds. *Ethnic and Regional Foodways in the United States: The Performance of Group Identity*. Knoxville: University of Tennessee Press; 1984:37-65.
33. Bradby H. Health, eating and heart attacks: Glaswegian Punjabi women's thinking about everyday food. In: Caplan P, ed. *Food, Health, and Identity*. London, England: Routledge; 1997:213-233.
34. Jabs J, Devine CM, Sobal J. Maintaining vegetarian diets: personal factors, social networks, and environmental resources. *Can J Diet Pract Res*. 1998;59:183-189.
35. Jabs JA, Devine CM, Sobal J. A model of the process of adopting vegetarian diets: health vegetarians and ethical vegetarians. *J Nutr Educ*. 1998;30:196-202.
36. Willetts A. 'Bacon sandwiches got the better of me': meat-eating and vegetarianism in south-east London. In: Caplan P, ed. *Food, Health, and Identity*. London, England: Routledge; 1997:111-130.
37. Sobal J, Jabs J, Devine CM. Managing vegetarianism: identities, norms, and interactions. *Ecol Food Nutr*. 2000;39:375-394.
38. Shepherd R, Raats MM. Attitudes and beliefs in food habits. In: Meiselman HL, MacFie HJH, eds. *Food Choice, Acceptance, and Consumption*. London, England: Blackie; 1996:346-364.
39. Sparks P, Shepherd R. Self-identity and the Theory of Planned Behavior: assessing the role of identification with "Green Consumerism." *Soc Psychol Q*. 1992;55:388-399.
40. Sapp SG, Harrod WJ. Social acceptability and intentions to eat beef: an expansion of the Fishbein-Ajzen model using reference group theory. *Rural Sociology*. 1989;54:420-438.
41. Fries E, Croyle R. Stereotypes associated with a low-fat diet and their relevance to nutrition education. *J Am Diet Assoc*. 1993;93:551-555.
42. Sparks P, Shepherd R, Wieringa N, Zimmermanns N. Perceived behavioural control, unrealistic optimism, and dietary change: an exploratory study. *Appetite*. 1995;24:243-255.
43. Cohen S. Being told what to eat: conversations in a Diabetes Day Center. In: Caplan P, ed. *Food, Health, and Identity*. London, England: Routledge; 1997:193-212.
44. Cordell G, Ronai CR. Identity management among overweight women: narrative resistance to stigma. In: Sobal J, Maurer D, eds. *Interpreting Weight: The Social Management of Fatness and Thinness*. Hawthorne, NY: Aldine de Gruyter; 1999:29-47.
45. English C. Gaining and losing weight: identity transformations. *Deviant Behavior*. 1993;14:227-241.
46. Sobal J. Sociological analysis of the stigmatisation of obesity. In: Germov J, Williams L, eds. *Sociology of Food and Nutrition: The Social Appetite*. Oxford, England: Oxford University Press; 1999:187-204.
47. Jarry JL. The meaning of body image for women with eating disorders. *Psychosom Med*. 1998;43:367-374.
48. Stein K. The self-schema model: a theoretical approach to the self-concept in eating disorders. *Arch Psychiatr Nurs*. 1996;10:96-109.
49. Berger PL, Luckmann T. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York, NY: Doubleday; 1966.
50. Glaser BG, Strauss AL. *The Discovery of Grounded Theory*. Chicago, Ill: Aldine; 1967.
51. Guba EG, Lincoln YS. *Fourth Generation Evaluation*. Newbury Park, Calif: Sage; 1989.
52. Jones R. Why do qualitative research? *BMJ*. 1995;311.
53. Charmaz K. Grounded theory: objectivist and constructivist methods. In: Denzin NK, Lincoln YS, eds. *Handbook of Qualitative Research*. Thousand Oaks, Calif: Sage; 2000:509-535.
54. Strauss AL, Corbin J. *Basics of Qualitative Research: Grounded Theory Procedures and Research*. Newbury Park, Calif: Sage; 1990.
55. Greene JC. The role of theory in qualitative program evaluation. In: Flinders D, Mills GE, eds. *Theory and Concepts in Qualitative Research: Perspectives from the Field*. New York, NY: Teachers College Press; 1993:24-45.

56. Falk L, Bisogni CA, Sobal J. Personal, social, and situational influences associated with diet changes of participants in an intensive heart program. *J Nutr Educ.* 2000;32:251-260.
57. Falk L, Bisogni CA, Sobal J. Diet change processes of participants in an intensive heart program. *J Nutr Educ.* 2000;32:240-250.
58. Falk LW, Connors M, Sobal J, Bisogni CA, Devine CM. Managing healthy eating: definitions, classifications and strategies. *Health Educ Behav.* 2001;28:425-439.
59. Krueger RA. *Focus Groups: A Practical Guide for Applied Research.* Newbury Park, Calif: Sage; 1988.
60. Sobal J. Sample extensiveness in qualitative nutrition education research. *J Nutr Educ.* 2001;33:184-192.
61. Patton MQ. *Qualitative Evaluation and Research Methods.* Newbury Park, Calif: Sage; 1990.
62. Denzin NK, Lincoln YS, eds. *Handbook of Qualitative Research.* Thousand Oaks, Calif: Sage; 2000.
63. Novak J, Gowin DB. *Learning How to Learn.* New York, NY: Cambridge University Press; 1984.
64. McAdams DP. The case for unity in the (post) modern self: a modest proposal. In: Ashmore RD, Jussim L, eds. *Self and Identity: Fundamental Issues.* New York, NY: Oxford University Press; 1997:23-45.
65. Bakhurst D, Sypnowich C, eds. *The Social Self.* London, England: Sage; 1995.
66. Coole D. The gendered self. In: Bakhurst D, Sypnowich C, eds. *The Social Self.* London, England: Sage; 1995:123-139.
67. Furst TM, Connors M, Sobal J, Bisogni CA, Falk LW. Food classifications: levels and categories. *Ecol Food Nutr.* 2000;33:331-355.
68. Jenkins R. *Social Identity.* London, England: Routledge; 1996.
69. Warde A. Consumption, identity-formation, and uncertainty. *Sociology* 1994;28:877-898.
70. Rozin P. The socio-cultural context of eating and food choice. In: Meiselman H, MacFie H, eds. *Food Choice, Acceptance and Consumption.* London, England: Blackie; 1996:83-104.
71. Lupton D, Chapman S. 'A healthy lifestyle might be the death of you': discourses on diet, cholesterol control and heart disease in the press and among the lay public. *Sociology of Health and Illness.* 1995;17:477-494.
72. Lupton D. *Medicine as Culture: Illness, Disease, and the Body in Western Societies.* London, England: Sage; 1994.
73. Cardello AV. The role of the human senses in food acceptance. In: Meiselman HL, MacFie HJH, eds. *Food Choice, Acceptance, and Consumption.* London, England: Blackie; 1996:1-82.
74. Hirschman EC, Holbrook MB. Hedonic consumption: emerging concepts, methods, and predispositions. *Journal of Marketing.* 1982;46:92-101.
75. Devine CM, Wolfe WS, Frongillo EA Jr, Bisogni CA. Life-course events and experiences: association with fruit and vegetable consumption in 3 ethnic groups. *J Am Diet Assoc.* 1999;99:303-314.
76. Higgins ET. Self-discrepancy: a theory relating self and affect. *Psychol Rev.* 1987;94:319-340.
77. Markus H. Self-schemata and processing information about the self. *J Pers Soc Psychol.* 1977;35:63-78.
78. Markus H, Nurius P. Possible selves: the interface between motivation and the self-concept. In: Yardley K, Honess T, eds. *Self and Identity: Psychosocial Perspectives.* New York, NY: John Wiley & Sons Ltd; 1987:157-172.
79. Gillespie A, Yarbrough P. A conceptual model for communicating nutrition. *J Nutr Educ.* 1984;16:168-172.
80. Campbell MK, DeVellis BM, Strecher VJ, Ammerman AS, DeVellis RF, Sandler RS. Improving dietary behavior: the effectiveness of tailored messages in primary care settings. *Am J Public Health.* 1994;5:783-787.