

# Food and Culture

Nina Mukerjee Furstenau and SeAnne Safaii-Waite

8E



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# Preface

The population of the United States is increasingly heterogeneous, moving toward a plurality of ethnic, religious, and regional groups. Each of these groups has traditional food habits that differ—slightly or significantly—from the so-called typical American majority diet. Effective nutrition counseling, education, and food service require that these variations be acknowledged and understood within the context of culture. It is our goal to provide dietitians, nutritionists, health professionals, and food service professionals with the broad overview needed to avoid ethnocentric assumptions and the nutrition specifics helpful in working with each group discussed. We have attempted to combine the conceptual with the technical in a way that is useful to other health professionals as well.

We would like to draw attention specifically to the area of nutrition counseling as diet is key to disease prevention and life long health. The Academy of Nutrition and Dietetics recommends multicultural competency in the area of nutrition, counseling, and medical nutrition therapy due to the sensitivity and influence of culture on individual food intake, attitudes, and behavior. A model (Harris-Davis & Haughton, 2000) recommended for multicultural nutrition competencies specifically lists the following:

1. Understand food selection, preparation, and storage with a cultural context.
2. Have knowledge of cultural eating patterns and family traditions such as core foods, traditional celebrations, and fasting.
3. Familiarize self with relevant research and latest findings regarding food practices and nutrition-related health problems of various ethnic and racial groups.
4. Possess specific knowledge of cultural values, health beliefs, and nutrition practices of particular groups served, including culturally different clients.

This book offers information fundamental to these competencies.

## New to this Edition

Content has been revised to acknowledge diversity and inclusivity with efforts to recognize and reduce implicit bias. Throughout this textbook, cultural words have not been italicized when they are explained within the sentence. This

was a careful choice to avoid framing closely held terms as “foreign.” At times, italics are used for clarity and for scientific terms. Also, authentic menus, recipes, longevity, and comfort food highlights have been included. Outdated counseling approaches have been removed and replaced with information that embraces cultural humility.

- Chapter 1. Food and Culture—Updated population data and added information on culinary research and comfort foods.
- Chapter 2. Traditional Health Beliefs and Practices—Updated data on the use of complementary and alternative medicine (CAM).
- Chapter 3. Intercultural Communications—Updated to introduce the term Cultural Humility and LEARN Guidelines.
- Chapter 4. Food and Religion—Updated demographics data on religious affiliation in the United States and expanded information on specific religions based on new data.
- Chapter 5. Native Americans—Updated U.S. Census data on Native American population and other demographics. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition. New information on the indigenous foodways and the food sovereignty movement, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 6. Northern and Southern Europeans—Updated U.S. Census population and other demographics on European groups. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 7. Central Europeans, People of the Former Soviet Union, and Scandinavians—Updated U.S. Census population and other demographics on central and eastern European groups. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 8. Africans, African Americans, and Black Americans—Updated U.S. Census population and other demographics on African Americans and more recent

immigrant groups from Africa. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.

- Chapter 9. Mexicans and Central Americans—Updated U.S. Census population and other demographics on Mexicans and Central American groups. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, and new recipes for students to try.
- Chapter 10. Caribbean Islanders and South Americans—Updated U.S. Census population and other demographics on Caribbean and South American groups. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 11. East Asians—Updated U.S. Census population and other demographics on East Asian groups. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 12. Southeast Asians and Residents of Oceania—Updated U.S. Census population and other demographics on East Asian groups. Updated information on current diets, nutritional status, medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 13. People of the Balkans and the Middle East—Updated U.S. Census population and other demographics on Balkan and Middle Eastern groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 14. South Asians—Updated U.S. Census population and other demographics on South Asian groups. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition, comfort foods, longevity foods, and new recipes for students to try.
- Chapter 15. Regional Americans—Updated U.S. Census regional population and other demographics. Updated information on current diets, nutritional status, and medical disorders related to diet and nutrition.

## Organization of the Text

The first four chapters form an introduction to the study of food and culture. Chapter 1 discusses methods for understanding food habits within the context of culture, changing demographics, and the ways in which ethnicity may affect nutrition and health status. Chapter 2 focuses on the role of diet in traditional health beliefs. Some intercultural communication strategies are suggested in Chapter 3, and Chapter 4

outlines the major Eastern and Western religions and reviews their dietary practices in detail.

Chapters 5 through 14 profile North American ethnic groups and their cuisines. We have chosen breadth over depth, discussing groups with significant populations in the United States, as well as smaller, more recent immigrant groups who have had an impact on the health care system. Other groups with low numbers of immigrants but notable influences on American cooking are briefly mentioned.

Groups are considered in the approximate order of their arrival in North America. Each chapter begins with a history of the group in the United States and current demographics. Worldview (outlook on life) is then examined, including religion, family structure, and traditional health practices. This background information illuminates the cultural context from which ethnic foods and food habits emerge and evolve. The next section of each chapter outlines the traditional diet, including ingredients, some common dishes, meal patterns, special occasions, the role of food in the society, and therapeutic uses of food. The final section explains the contemporary diet of the group, such as adaptations made by the group after arrival in the United States and influences of the group on the American diet. Reported nutritional status is also reviewed. Special call outs to foods or behaviors that may contribute to health aging and longevity are found at the end of each chapter. Those, along with comfort foods and recipes, provide a more personal connection to each chapter.

One or more cultural food group tables are found in each of the ethnic group chapters. The emphasis is on ingredients common to the populations of the region. Important variations within regions and unique food habits are listed in the “Comments” column of the table. Known adaptations in the United States are also noted. The tables are intended as references for the reader; they do not replace either the chapter content or an in-depth interview with a client.

Chapter 15 considers the regional American fare of the Northeast, the Midwest, the South, and the West. Each section includes an examination of the foods common in the region and general nutritional status. Canadian regional fare is also briefly considered. This chapter brings the study of cultural nutrition full circle, discussing the significant influences of different ethnic and religious groups on North American fare.

## Before You Begin

Food is so essential to ethnic, religious, and regional identity that dietary descriptions must be as objective as possible to prevent inadvertent criticism of the underlying culture. Yet as members of different ethnic and religious groups, we recognize that our own cultural assumptions are unavoidable and, in fact, serve as a starting point for our work. One would be lost without such a cultural footing. Any instances of bias are unintentional.

Any definition of a group’s food habits implies homogeneity in the described group. In daily life, however, each member of a group has a distinctive diet, combining traditional practices with new influences. We do not want to stereotype the fare of

any cultural group. Rather, we strive to generalize common U.S. food and culture trends as a basis for understanding the personal preferences of individual clients.

We have tried to be sensitive to the designations used by each cultural group, though sometimes there is no consensus among members regarding the preferred name for the group. Also, there may be some confusion about dates in the book. Nearly all religious traditions adhere to their own calendar of events based on solar or lunar months. These calendars frequently differ from the Gregorian calendar used throughout most of the world in business and government. Religious ceremonies often move around according to Gregorian dates, yet usually they are calculated to occur in the correct season each year. Historical events in the text are listed according to the Gregorian calendar, using the abbreviations for before common era (BCE) and common era (CE).

We believe this book will do more than introduce the concepts of food and culture. It should also encourage self-examination and individual cultural identification by the reader. We hope that it will help dietitians, nutritionists, other health care providers, and food service professionals work effectively with members of different ethnic, religious, and regional groups. If it sparks a gustatory interest in the foods of the world, we will be personally pleased. *De gustibus non est disputatum!*

## Ancillary Package

Additional instructor resources for this product are available online. Instructor assets include an Instructor's Manual, Educator's Guide, PowerPoint® slides, Transition Guide, Guide to Teaching Online, and a test bank powered by Cognero®. Sign up or sign in at <https://faculty.cengage.com/> to search for this title. Then, you can save the title for easy access and download the resources that you need.

For this revision, the Instructor's Manual will be updated to reflect content changes from the new edition of the textbook and the order of the content will be rearranged based on the new instructor supplement template.

For this revision, the PowerPoint® slides will be updated to reflect content changes from the new edition of the

textbook and reorganized to include the mandatory content and activity slide types based on the new instructor supplement template.

For this revision, the Transition Guide will be updated to reflect content changes from the new edition of the textbook.

For this revision, the test bank powered by Cognero® will be updated to reflect content changes from the new edition of the textbook.

## Acknowledgments

We are forever indebted to the many researchers, especially from the fields of anthropology and sociology, who did the seminal work on food habits that provided the groundwork for this book, and to the many nutrition professionals who have shared their expertise with us over the years. We especially want to thank the many colleagues who have graciously given support and advice in the development of the numerous editions: Carmen Boyd, MS, LPC, RD, Missouri State University; Bonny Burns-Whitmore, DrPH, RD, California State Polytechnic University, Pomona; Arlene Grant-Holcomb, RD, MAE, California State Polytechnic University, San Luis Obispo; Carolyn Hollingshead, PhD, RD, University of Utah; Tawni Holmes, PhD, RD, University of Central Oklahoma; Claire G. Kratz, MS, RD, LDN, Montgomery County Community College; Yvonne Moody, EdD, Chadron State College; Sudha Raj, PhD, Syracuse University; Stacey A. Roush, MS, Montgomery County Community College; Dana Wassmer, MS, RD, Cosumnes River College; Judith Dodd MS, RDN, LDN, Sudha Raj, Sheila Barrett, Shelley DePinto, Emily Shupe, Stacey Gomes, Amy Loverin, Donna Winham, Jill Comess, Emily Shupe, Jane Burrell, Pao Ying Hsiao, Michelle Abich, Samantha Coogan, Dawn Matusz, Danielle Kronmuller, Slavko Komarnytsky, and Donna M. Winham, DrPH, Arizona State University. We are grateful for the expertise of Gerald Nelms, PhD, as his development of the discussion starters during the 6th edition revision was an important contribution to the pedagogy for this text.



# About the Authors

**SeAnne Safai-Waite** is a registered dietitian nutritionist and is an Associate Professor Emeritus of Nutrition and Dietetics at the University of Idaho and adjunct professor at the University Missouri. She received her bachelor's degree in dietetics from North Dakota State University, her master's degree in Community Health from the University of Oregon and a doctorate of philosophy from the University of Idaho in Adult Learning and Organizational Leadership. She has worked extensively in the areas of child nutrition, diabetes education, Alzheimer's Disease and healthy aging around the world. She has served on various state and national leadership committees and has written grants collaboratively to fund various community health nutrition interventions. She is the author of *Medical Nutrition Therapy Simulations* (2019), co-author of *The Alzheimer's Prevention Food Guide* (2017), and a contributing author to *Food Science An Ecological Approach*, 2nd ed (2019). Her leadership in dietetics has been recognized by the Academy of Nutrition and Dietetics with several awards and she is recipient of the prestigious University of Idaho Community Outreach and Engagement award. She and her husband John are active supporters of various food insecurity organizations and enjoy leading a very active lifestyle cycling, running, skiing, and just about anything that gets them outdoors.

*For my husband John and our children to encourage them to never stop writing.*

**Nina Mukerjee Furstenau** is an author and journalist with a research focus on food and identity. She was director of food systems communication at the University of Missouri Science and Agricultural Journalism program from 2010–2018, and has served as part of a USAID human nutrition project in Mozambique and Ghana where she conducted field interviews on food story with native populations. She has written the books, *Green Chili & Other Impostors* (2021), *Tasty! Mozambique* (2018), and *Biting Through the Skin: An Indian Kitchen in America's Heartland* (2013); published essays and articles on food in publications such as the *Atlanta Journal Constitution*, *Feast, and Sauce*; and written a chapter for the *Routledge Handbook on Food and Landscape* (2018). Among other recognitions, Nina won the M.F.K. Fisher Book Award for culinary cultural literature. She received her B.A. from The Missouri School of Journalism, and her M.A. from the University of Missouri. Nina was a Fulbright Global Scholar in Kolkata, India, in 2018–19, researching heritage foods, and long ago in 1980, was a Peace Corps volunteer in Tunisia where her love of heritage foods and human nutrition emerged. She is currently the FoodStory book series editor for the University of Iowa Press.

*For my husband Terry, my constant support.*





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Chapter

1

# Food and Culture

## Learning Objectives

- 1.1** List the fastest-growing ethnic groups in the United States.
- 1.2** Define the "Omnivore's Paradox."
- 1.3** Explain symbolic meanings that can be assigned to food.
- 1.4** Describe how food choices can reveal cultural identity and self-identity.
- 1.5** Explain acculturation, enculturation, biculturation, and assimilation.
- 1.6** List the components of the core and complementary foods model.
- 1.7** Define flavor principles.
- 1.8** Outline the components of the developmental perspective of food culture.
- 1.9** Identify ways that health care providers can become more skilled in intercultural communication.

What do Americans eat? Meat and potatoes, according to popular myth. There's no denying that per person in the United States, an average of over half a pound of beef, pork, lamb, or veal is eaten daily, and more than one hundred and twenty pounds of potatoes (mostly as chips and fries) are consumed annually. Yet, the American diet is as diverse as its population, and we should no longer describe the U.S. population as White, Anglo-Saxon, and Protestant, or the diet as consisting of mostly meat and potatoes.

The U.S. Census and other demographic data show that just under 40 percent of Americans are not White, and 13.5 percent are foreign-born.<sup>1</sup> Asian Americans recorded the fastest population growth rate among all racial and ethnic groups in the United States between 2000 and 2019, growing 81 percent from about 10.5 million to 18.9 million people. Latinx people grew the second-fastest, followed by Native Hawaiians and Pacific Islanders (henceforth in this text referred to as Southeast Asians/residents of Oceania) at 70 and 61 percent, respectively. The U.S. Black population grew as well by 20 percent. There was virtually no change in the White population.<sup>2</sup>

Each American ethnic, religious, or regional group has its own culturally based food habits. Many of these customs have been modified through contact with American culture and, in turn, changed and shaped American food habits. Today, a fast-food restaurant or street stand is as likely to offer pizza, tacos, egg rolls, or falafel as it is hamburgers. The intricate interplay between past and present food habits, the old and new, and the traditional and innovative is the hallmark of the American diet.

## What Is Food?

Food, as defined in the dictionary, is any substance that provides the nutrients necessary to maintain life and growth when ingested. When most animals feed, they repeatedly consume those foods necessary for their well-being, and they do so in a similar manner at each feeding. Humans, however, do not feed. They eat.

It is said that this, and cooking, sets humans apart from other animals. Plus, we bring our minds (memories, associations) with us to every food we eat. Aroma becomes an intimate reminder of a past event and sound (such as the sizzle of roasting meat) can conjure not only saliva but bring people to mind who may have once cooked for us. Taste can make a favorite dish never measure up to the way our mothers (or fathers) once cooked it, even if it is made by a skilled chef. What we bring to the table—our senses—can trigger an entire world: an edible archive of our life. Consider, too, that all humans across any geography and period use the same senses to eat. In this way, food and human culture are connected across geography, culture, and time in a tangible, sensory way.

Eating is also distinguished from feeding by the ways humans use food. Humans not only gather or hunt food, but they also cultivate plants and raise livestock. Agriculture means that some foods are regularly available, alleviating dependence on natural cycles for sustenance. This permits the development of specific customs associated with foods that are the foundation of the diet, such as wheat or rice. Humans also cook, softening tough foods, including raw grains and meats, and combine foods to create new textures and taste sensations. This greatly expands the number and variety of edible substances available. Humans often use utensils to eat meals and institute complex rules, commonly called manners, about how meals are consumed. And, significantly, humans share food. Standards for who may dine with whom, who prepares the food, how diners are seated and where, not to mention who grows the food and many more complexities, in each eating situation are well defined in every culture.

The term *food habits* (also called food culture or foodways) refers to how humans use food, including everything from how it is selected, obtained, and distributed to who prepares it, serves it, and eats it. The significance of this process is unique to humankind. Why don't people simply feed on the diet of our primitive ancestors, surviving on foraged fruits, vegetables, grains, and the occasional insect or small mammal thrown in for protein? Why do people choose to spend their time, energy, money, and creativity on eating? The answers to these questions, according to some researchers, can be found in the basic biological and psychological constitution of humans.

This book touches on the striking diversity of traditional diets around the world, and which of those ranges of food came to the United States with immigrant populations, trade routes, food fads, and more. It also addresses pre-European-contact Indigenous heirloom foods passed down through generations and which foods folded into ever-new, tasty creations. All of them have impacts on health, reveal culture, and connect people.



### Food for Thought

As suggested by their names, not even hamburgers and French fries are American in origin. Chopped beef steaks first showed up in print in 1834 in America on the menu at New York's Delmonico Restaurant, where the chopped and formed "Hamburg steak" was a prominent item. The German city of Hamburg was known at the time for exporting high-quality beef.<sup>3</sup> Other foods considered typically American also have foreign origins, for example, hot dogs, apple pie, and ice cream.

Data from the 2016 Canadian census indicate more than 250 different ethnic origins were documented. English, Scottish, French, and Irish origins are still among the most common (20 million), however, their share in the population has decreased. The most common newer groups include individuals from China (1.8 million), India (1.4 million), and the Philippines (837,130). Communities of Edo, Ewe, Malinke, Wolof, and Djiboutian from Africa, and Hazara, Kyrgyz, Turkmen, Bhutanese, and Karen from Asia, are among the newest groups in Canada.<sup>4</sup>





▲ Humans create complex rules, commonly called manners, about how food is to be eaten.



### Food for Thought

It is thought that children are less likely than adults to try new foods, in part because they have not yet learned cultural rules regarding what is safe and edible. A child who is exposed repeatedly to new items loses the fear of new foods faster than one who experiences a limited diet.<sup>5,6</sup>

## The Omnivore's Paradox

Humans are omnivorous, meaning that they can consume and digest a wide selection of plants and animals found in their surroundings. The primary advantage of this is that they can live in various climates and terrains. Because no single food provides the nutrition necessary for survival, humans must be able to eat enough of a variety of items, yet cautious enough not to ingest foods that are harmful and possibly fatal. This dilemma, the need to experiment combined with the need for caution, is known as the omnivore's paradox.<sup>7</sup> It results in two contradictory psychological impulses regarding eating—an attraction to new foods, but a preference for familiar foods. The food habits developed by a community provide the framework that reduces the anxiety produced by these opposing desires. Rules about which foods are edible,

how they are procured and cooked, how they should taste, and when they should be consumed provide guidelines for both testing new foods (based on previous experience with similar plants and animals or flavors and textures) and maintaining food traditions through ritual and repetition.

## Self-Identity

The choice of which foods to ingest is further complicated by another psychological concept regarding eating—the incorporation of food. This means that consumption is not just the conversion of food into nutrients in the human body, but also includes gaining the food's physical properties as well—hence one interpretation of the phrase “You are what you eat.” In most cases, this refers to the physical properties of a food expressed through incorporation. For example, some Asian Indians eat walnuts, which look like miniature brains, to make them smarter, and weight lifters may dine on rare meat to build muscle. In other cases, the character of the food is incorporated. Some Native Americans believe that because milk is a food for infants it will weaken adults. The French say a person who eats too many turnips becomes gutless, and some Vietnamese consume gelatinized tiger bones to improve their strength.

It is a small step from incorporating the traits associated with a specific food to making assumptions about a total diet. The correlation between what people eat, how others perceive them, and how they characterize themselves is striking. In one study, eating was a powerful way to mark symbolic class boundaries. People used food knowledge, adventurousness, and openness to give themselves a certain cache and establish belonging in a social class to which they were not born. Some used ethical eating to establish their distinction from those around them, or employed healthy eating for distinct moral boundary marking. Healthy eating as a topic seems to have become pervasive, across social class groups, perhaps due to the dissemination of healthy eating messages, good news for those involved in the field of nutrition.<sup>8</sup>

Food choice is influenced by self-identity, a process whereby food likes or dislikes are accepted and internalized as personal preferences. Culinary practices can be a force for social order, as well as a point of cultural resistance. Food can shape ideas ranging from nationalism to gender and sexuality norms, suggesting that eating “right” is a gateway to becoming an American, a good citizen, and an ideal person. Eating in America has long been a place for people to distinguish themselves from Europeans. In fact, the first cookbook published on American shores, *American Cookery* by Amelia Simmons, 1796, placed recipes using indigenous corn flour made into Johnny cake and slapjack made “before the fire” or on a hot griddle, just pages away from fancy wheat flour English cakes with 30 ingredients. Though cooking patterns still resembled old English tradition, simple recipes, simply made with available bountiful ingredients, were the order of most lives and a sure break from the motherland of America’s first European settlers. The tension between how to balance the sumptuous with the simple in American life had begun.<sup>9</sup> *American Cookery* has been seen as using food as another declaration of independence.<sup>10</sup>

Research suggests that children choose foods eaten by admired adults (e.g., teachers), fictional characters, peers, and especially older siblings. Group approval or disapproval of food can also condition a person’s acceptance or rejection. This may explain why certain relatively unpalatable items, such as chili peppers or unsweetened coffee, are enjoyed if introduced through socially mediated events, such as family meals or workplace snack breaks. Although the mechanism for the internalization of food preference and self-identity is not well understood, it is considered a significant factor in the development of food habits.<sup>11</sup> The consumption of organic vegetables, for example by those who identify themselves as green (people who are concerned with ecology and make consumer decisions based on this concern), can mean an intention to eat organic items independent of other attitudes, such as perceived flavor and health benefits.<sup>12,13</sup>

Food as self-identity is especially evident in the experience of dining out. Researchers suggest that restaurants often serve more than food, satisfying both emotional and physical needs. A diner may consider the menu, atmosphere, service, and cost or value when selecting a restaurant, and

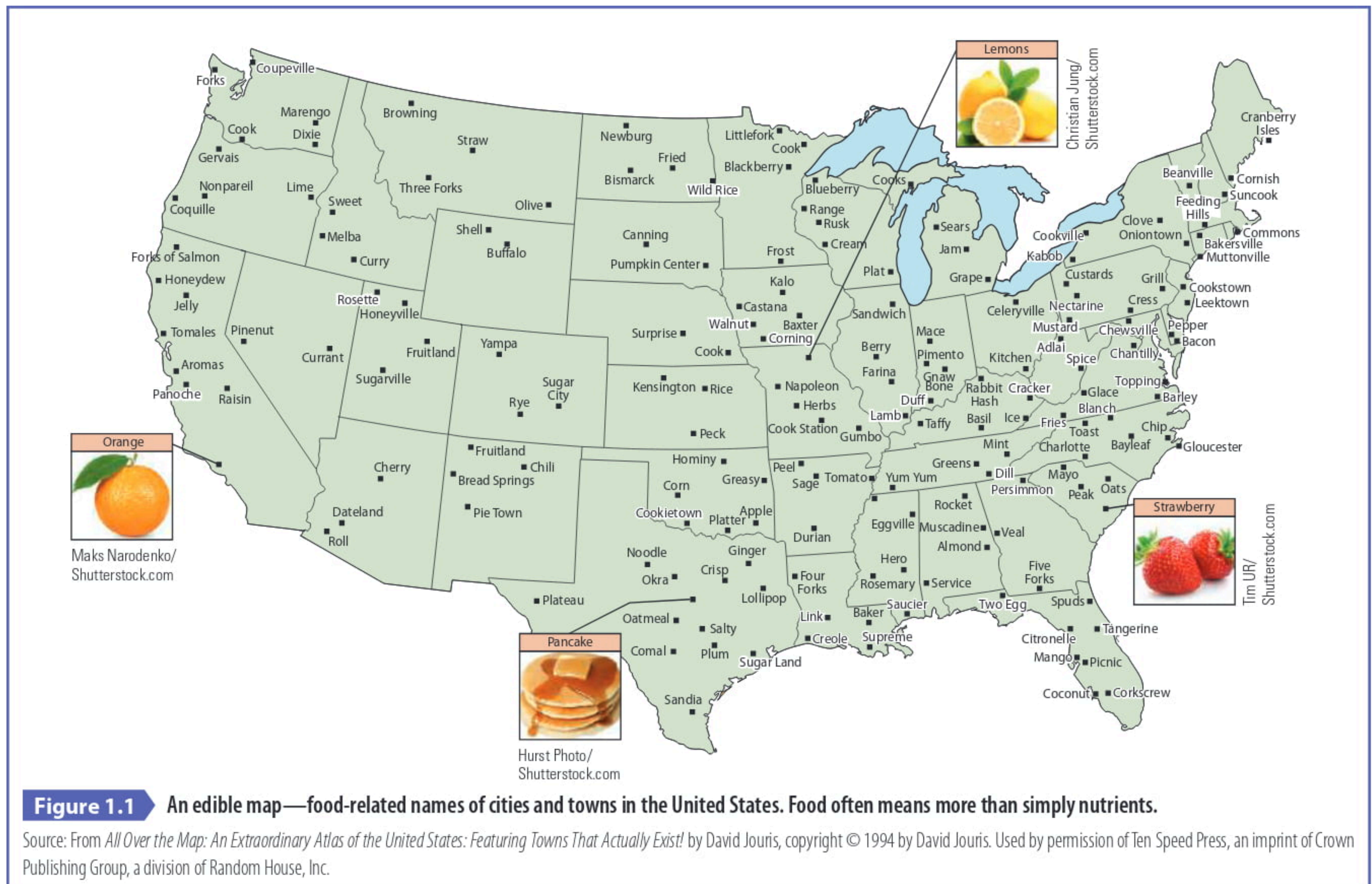
most establishments cater to a specific clientele. Some offer quick, inexpensive meals and children’s play equipment to attract families. Business clubs feature a conservative setting suitable for financial transactions, and the candlelit ambiance of a bistro might be considered conducive to romance. The same diner may choose the first in her role as a mother, the second while at work, and the last when meeting a date. In Japan, restaurants serve as surrogate homes where company is entertained, preserving the privacy of family life. The host chooses and pays for the meal ahead of time, all guests are provided the same dishes, and the servers are expected to partake in the conversation. Ethnic restaurants appeal to those individuals seeking familiarity and authenticity in the foods of their homeland or those interested in novelty and culinary adventure. Conversely, exposure to different foods in restaurants is sometimes the first step in adopting new food items at home.<sup>14</sup>

### Symbolic Use of Food

The development of food habits clearly indicates that for humans, food is more than just nutrients. Humans use foods symbolically, due to relationship, association, or convention. Bread is an excellent example—it is called the staff of life in several cultures; one breaks bread with friends, bread represents the body of Christ in the Christian sacrament of communion, and a person with money has “a lot of bread.” White bread was traditionally eaten by the upper classes, dark bread by the less wealthy, but whole wheat bread is consumed today by people concerned more with health than status. In many cultures, bread is shared by couples as part of the wedding ceremony or left for the soul of the dead. Superstitions about bread also demonstrate its importance beyond sustenance. Greek soldiers took a piece from home to ensure their safe, victorious return; English midwives placed a loaf at the foot of the mother’s bed to prevent the woman and her baby from being stolen by evil spirits; and sailors traditionally brought a bun to sea to prevent shipwreck. The base grain in other cultures, such as rice in Asia and corn (maize) in Mesoamerica, also have a symbolic value that carries throughout the culture. “Have you had rice?” means have you eaten in India, and rice is symbolically the first solid food eaten at a baby’s annaprashan ceremony (meaning “first feeding” or “grain initiation” in Sanskrit), and more. Corn to many Native Americans plays a mythological role as a diety, or as a special gift to people from the Creator. Its sacred pollen can be a spiritual offering. It can be the symbolic use of food that is valued most by people, not its nutritional composition.

#### Food for Thought

The inability to express self-identity through food habits can be devastating. A study of persons with permanent feeding tubes living at home or in nursing facilities found they frequently avoided meals with families and friends. They missed their favorite foods, but more importantly, they mourned the loss of their self-identities reinforced by these daily social interactions.<sup>15</sup>



## Cultural Identity

An essential symbolic function of food is cultural identity. What one eats defines who one is, culturally speaking, and, conversely, who one is not. In the Middle East, for example, a person who eats pork is probably Roman Catholic or Orthodox Christian, not Jewish or Muslim (pork is prohibited in Judaism and Islam). Ravioli served with roast turkey may suggest an Italian American family celebrating Thanksgiving, not a Mexican American family, who would be more likely to dine on tamales, pozole, flan, and turkey. The food habits of each cultural group are often linked to religious beliefs or ethnic behaviors. Eating is a daily reaffirmation of cultural identity (Figure 1.1).

Foods that demonstrate affiliation with a culture are usually introduced during childhood and are associated with security or good memories. Such foods hold special worth to a person, even if other diets have been adopted due to changes in residence, religious membership, health status, or daily personal preference. They tend to be the favorite foods of childhood, or linked to a specific person, place, or time. They may be eaten during cultural holidays and for personal events, such as birthdays or weddings, or during times of stress. These items are sometimes called comfort foods because they satisfy the basic psychological need for food familiarity. A survey of more than 1,000 North Americans noted that the top comfort foods were

potato chips (24 percent), ice cream (14 percent), cookies (12 percent), pizza and pasta (11 percent), beef/steak burgers (9 percent), fruits/vegetables (7 percent), soup (4 percent), and other (9 percent). There were gender differences in this finding: women preferred ice cream, chocolate, and cookies. Men chose ice cream, soup, and pizza/pasta, more hot “main” foods than sweet. Loneliness, depression, and guilt were all found to be key drivers of comfort eating for women. Men in the survey, however, typically reported that they ate comfort food when feeling jubilant. In addition to eating comforting foods when low, many times comfort food is eaten as a reward for success.<sup>16</sup> Occasionally, a person embraces a certain diet as an adult to establish an association with a group. A convert to Judaism, for instance, may adhere to the kosher dietary laws. African Americans may choose to eat soul food, which is rooted in the cultures of the African diaspora.

The reverse is also true. One way to establish that a person is not a member of a certain cultural group is through diet. Researchers suggest that when one first eats the food of another cultural group, a chain of reasoning occurs, beginning with the recognition that one is experiencing a new flavor and ending with the assumption that this new flavor is an authentic marker of other group members.<sup>17</sup> Ethnic groups may be denigrated by using food stereotyping, and such slurs are found in nearly all cultures.

Foods that come from other cultures may also be distinguished as foreign to maintain group separation. Kafir, a derogatory Arabic term for “infidel,” was used to label some items found in areas they colonized, including the knobby kaffir lime (termed more appropriately the makrut lime) of Malaysia, and kaffir corn (millet) in Africa. Similarly, when some non-Asian foods were introduced to China, they were labeled barbarian or Western and named after items already familiar in the diet. Thus, sweet potatoes were called barbarian yams, and tomatoes became barbarian eggplants.<sup>18</sup> Less provocative place names are used, too, though the origins of the food are often incorrect, such as Turkey wheat (the Dutch term for native American corn, which was thought to come from Turkey) and Irish potatoes (which are indigenous to Peru but were brought to the United States by immigrants from Ireland). The powerful symbolic significance of food terms leads occasionally to renaming foreign items in an attempt to assert a new cultural identity. Turkish coffee (it was the Ottomans of Turkey who popularized this thick, dark brew from Africa and spread it through their empire) became Greek coffee in Greece after tensions between the two nations escalated in the 1920s. Examples in the United States include renaming sauerkraut “liberty cabbage” during World War I, and more recently, calling French fries “freedom fries” when France opposed the United States in the invasion of Iraq.



### Food for Thought

A child’s rejection of foods, or fussy/picky eating behavior, peaks at around 2–3 years of age. This happens just when there are rapid improvements in a child’s ability to categorize food from non-food items. The perception of the food, a child’s emotional feeling toward that food or toward eating in general, the environment around eating, and other factors all contribute to pickiness.<sup>19</sup> Usually it takes a child 10–15 tries of a new food before they will accept it.<sup>20,21</sup>

The appropriate use of food and the behaviors associated with eating, also known as etiquette, is another expression of group membership. In the United States, entirely different manners are required during a business lunch at an expensive restaurant, when eating in the school cafeteria or at a barbecue, or when dining with a date. Discomfort can occur if a person is unfamiliar with the rules, and if a person deliberately breaks the rules, he or she may be ostracized or shunned.

Another function of food symbolism is to define status—a person’s position or ranking within a particular cultural group. Food can be used to signify economic social standing: champagne, Kobe beef, and truffles suggest wealth; trendy, hip restaurants suggest upward mobility; and beans, potatoes, and minestrone soup are considered more accessible, easy to prepare, and commonly eaten regardless of social status. Status foods are characteristically used for social interaction. In the United States, a spouse may appreciate a box of chocolates from their partner—but not a bundle of broccoli. Wine is considered an appropriate gift to a hostess—a gallon of milk is not.



Sueddeutsche Zeitung Photo/Alamy Stock Photo

▲ Typically, first-generation immigrants remain emotionally connected to their ethnicity, surrounding themselves with a reference group of family and friends who share their cultural background.

In general, eating with someone connotes social equality with that person. Many societies regulate commensalism (who can dine together) as a means of establishing class relationships. Men may eat separately from women and children, or servants may eat in the kitchen, away from their employers. In India, the separate social castes did not traditionally dine together, nor were people of higher castes permitted to eat food prepared by someone of a lower caste. This class segregation was also seen in some U.S. restaurants that excluded Black and Latinx Americans before civil rights legislation of the 1960s.

## What Is Culture?

When referring to humans, culture can be broadly defined as the values, beliefs, attitudes, and practices accepted and socially learned by members of a group or community. It is present in all or most members of the community, and absent or rare in other social groups of the same species. There is evidence of this definition of culture in other mammals (such as dolphins, meerkats, whales), fish, and birds.<sup>22</sup> Culture is not inherited; it is learned and then passed from generation to generation through language and socialization in a process called enculturation. Yet culture is not rigid and does change over time in response to group dynamics.<sup>23</sup>

Ethnicity is the identification of a group based on perceived cultural distinctiveness that makes the group into a “people.”<sup>24</sup> Unlike national origin (which may include numerous ethnic groups), ethnicity is a social identity associated with shared behavior patterns, including food habits, dress, language, family structure, and often religious affiliation.<sup>23,25</sup> Members of the same ethnic group usually have a common heritage through locality or history and participate together with other cultural groups in a larger social system. As part of this greater community, each ethnic group may have different statuses or positions of power. Diversity within each cultural group is also common due to racial, regional, or economic divisions as well as different rates of acculturation to the majority culture.<sup>25</sup>



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*Ethnocentric* is the term applied to a person who uses his or her values to evaluate the behaviors of others. It may be done unconsciously or in the conscious belief that their habits are superior to those of another culture. *Ethnorelativism* occurs when a person assumes that all cultural values have equal validity, resulting in moral paralysis and an inability to advocate for a belief. *Prejudice* is hostility directed toward persons of different cultural groups because they are members of such groups; it does not account for individual differences.<sup>26–28</sup>

## The Acculturation Process

When people from one ethnicity move to an area with different cultural norms, adaptation to the new majority society begins. This process is known as acculturation, and it takes place along a continuum of behavior patterns that can be very fluid, moving back and forth between traditional practices and adopted customs. It occurs at the micro level, reflecting an individual's change in attitudes, beliefs, and behaviors, and at the macro level, resulting in group changes that may be physical, economic, social, or political in nature.<sup>29,30</sup> Typically, first-generation immigrants remain emotionally connected to their culture of origin. They integrate into their new society by adopting some majority culture values and practices but generally surround themselves with a reference group of family and friends from their ethnic background. For example, Asian Indians living in the United States who consider themselves to be mostly or very Asian Indian may encourage their children to speak English and allow them to celebrate American holidays, but may not permit them to date non-Asian Indian peers.

Other immigrants become bicultural, which happens when the new majority culture is seen as complementing, rather than competing with, an individual's ethnicity. The positive aspects of both societies are embraced, and the individual develops the skills needed to operate within either culture. Asian Indians who may call themselves Indo-Americans or Asian Indian Americans fall into this category, eating equal amounts of Indian and American foods, and thinking and reading equally in an Indian language and English.

Assimilation occurs when people from one cultural group shed their ethnic identity and fully merge into the majority culture. Although some first-generation immigrants strive toward assimilation, due perhaps to personal determination to survive in a foreign country or to take advantage of opportunities, most often assimilation takes place in subsequent generations. Asian Indians who identify themselves as being “mostly American” do not consider Asian Indian culture superior to American culture, and they are willing to let their children date non-Indians. It is believed that ethnic pride is reawakened in some immigrants if they become disillusioned with life in America, particularly if the disappointment is attributed to prejudice from the majority society. A few immigrants exist at the edges of the acculturation

process, either maintaining total ethnic identity or rejecting both their culture of origin and that of the majority culture.<sup>31</sup>

## Acculturation of Food Habits

Culturally based food habits are often the last practices people change through acculturation. Unlike speaking a foreign language or wearing traditional clothing, eating is usually done in the privacy of the home, hidden from observation by others. Adoption of new food items does not generally develop as a steady progression from the traditional diet to the diet of the majority culture. Instead, research indicates that the consumption of new items is often independent of traditional food habits.<sup>29,30</sup> The lack of available native ingredients may force immediate acculturation, or convenience or cost factors may speed change. Samoans and people from southern India may be unable to find the fresh coconut cream needed to prepare favorite dishes, for instance, or an Iranian may find the cost of saffron prohibitive. Additionally, many traditional African dishes are plant-based and incorporate gluten-free grains, nuts and seeds, and spices such as fonio, egusi, berbere, and sorghum, which may not be readily sourced in the United States. Some immigrants, however, adapt the foods of the new culture to the preparation of traditional dishes.<sup>29</sup> Tasty foods are easily accepted—fast food, pastries, candies, and soft drinks; conversely, unpopular traditional foods may be the first to go. For example, Mexican children living in the United States may quickly reject certain cuts of meat, such as tripe, that their parents still enjoy. It is the foods most associated with ethnic identity that are often the slowest to be acculturated. Other groups will probably never eat pork, regardless of where they live. People from several Asian countries may insist on eating rice with every meal, even if it is the only Asian food on the table.<sup>32–34</sup>

## Cultural Food Habits

Food functions vary culturally, and each group creates categories reflective of their priorities. In the United States, food has been typically classified by food group (protein, dairy, cereal and grain, vegetables and fruits), by the percentage of important nutrients (as identified in Dietary Reference Intake [DRI] for energy, protein, fat, carbohydrates, vitamins, and minerals), or according to recommendations for health. American models, especially the Dietary Guidelines for Americans 2010 and the newer model, MyPlate, outline current dietary recommendations to support health guidelines. These categories also suggest that Americans value food more for its nutritional content and impact on health than for any symbolic use. But only limited information is provided about U.S. food habits; although these schemes list what foods people eat, they reveal nothing about how, when, or why foods are consumed.

Culturally based categories are commonly used by members of each culture. Examples found in both developing and industrialized societies include cultural superfoods,

usually staples that have a dominant role in the diet; prestige foods, often protein items or expensive or rare foods; body image foods, believed to influence health, beauty, and well-being; sympathetic magic foods, whose traits, through the association of color or form, are incorporated; and physiologic group foods, reserved for, or forbidden to, groups with certain physiologic status, such as gender, age, or health condition.

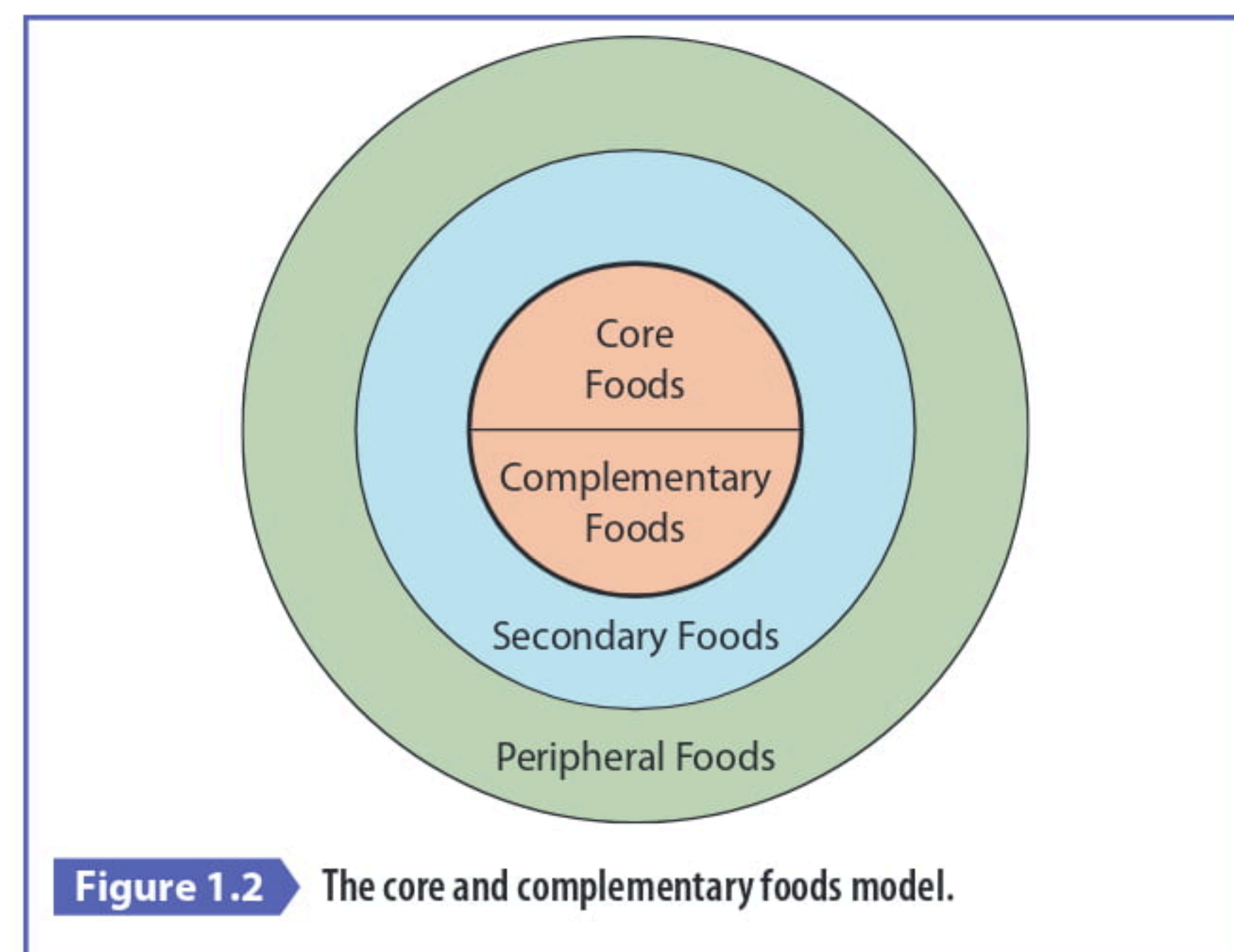
Researchers have proposed numerous models to understand the food habits of different cultures. Some of these models are helpful in understanding the role of food within a culture, including:

1. Core and complementary foods model: frequency of food consumption;
2. Food-flavor principles: ways a culture traditionally prepares and seasons its foods;
3. Meal patterns and meal cycles: daily, weekly, and yearly use of food; and
4. Developmental perspective of food culture: changes in food functions that emerge during structural growth in a culture.

### Core and Complementary Foods Model

Foods selected by a culture can be grouped according to how often they're consumed. Core foods are staples regularly included in a person's diet, usually daily.<sup>35</sup> These typically include complex carbohydrates, such as rice, wheat, corn, yams, cassava, taro, or plantains. Foods widely but less frequently eaten are termed secondary foods. These items, such as chicken, lettuce, or apples, are consumed once a week or more, but not daily. Foods eaten only sporadically are called peripheral foods. These foods are characteristic of individual food preference, not cultural group habits.

A slightly different version of this model suggests that in many cultures the core food is always served with fringe, or complementary, items to improve palatability (Figure 1.2).<sup>36</sup> Because most starchy staples are bland and uniform in texture, these flavorful foods, eaten in small quantities, encourage consumption of the core food as the bulk of the diet. Legumes, for example, are sometimes a complementary food and sometimes a secondary food. It has been hypothesized that these core and complementary food pairings often combine to provide nutritionally adequate meals, especially when legumes are included. Another example is in cultures where grain is a core food and additional sources of vitamins A and C are required. Rice, breads and pastas, and corn are frequently prepared with leafy green vegetables, abundant herbs, or tomatoes, which are high in these needed nutrients. Chinese rice with pickled vegetables, Italian noodles with tomato sauce, Mexican corn tortillas with salsa, and Middle Eastern pilaf with parsley and dried fruit are examples. When the core diet is almost adequate nutritionally, the addition of secondary foods—including legumes (soybean products in China; beans or lentils in



Italy; red or pinto beans in Mexico; chickpeas, fava beans, and lentils in the Middle East; and lentils in India), small amounts of meats, poultry, fish, and cheeses or yogurt—can provide the necessary balance.

Changes in food behaviors are believed to happen most often with peripheral foods and then core foods. A person who is willing to omit foods that she or he rarely eats is typically much more reluctant to change those eaten daily and associated with her or his cultural identity. Although little has been reported on the significance of complementary foods in diet modification, presumably, if complementary items were altered or omitted, the core would no longer be palatable. The complementary foods provide the flavor familiarity associated with the core.

### Flavor Principles

The significance of food flavor cannot be overestimated. The ways foods are prepared and seasoned are only second in importance to the initial selection of ingredients. It is no less than the transformation of feeding into eating.

Foods demonstrate variability according to location. Much is made, for example, of wine terroir—the soil texture, natural minerals, drainage, source of water, sun exposure, average temperature, and other environmental factors in which grapes are grown for wine production. Each region and vineyard are distinctive, often producing appreciable differences in the resulting product. Yet this variation is insignificant when compared to how foods in general are processed for consumption. Every technique, from preparation for cooking (e.g., washing, hulling or peeling, chopping, pounding, squeezing, soaking, leaching, and marinating) to cooking (e.g., baking, roasting, grilling, stewing, toasting, steaming, boiling, and frying) and preserving (e.g., drying, curing, canning, pickling, fermenting, and freezing), alters the original flavor of the ingredient. Nevertheless, location and manipulation practices alone do not equal cuisine. How it is seasoned is also a factor.

Historians and scientists speculate there are several reasons why herbs and spices have assumed such an essential role in food habits. Foremost is palatability. Salt, one of the most widely used seasonings, prompts an innate human taste response. It is enjoyed by most people and physiologically craved by some. Researchers also suggest that the burn of chili peppers (and perhaps other spices) may trigger the release of pleasurable endorphins (not to mention adding critical vitamin C to diets). Another debunked theory on the popularity of seasoning is that it was used to disguise the taste of spoiled meats, though this is far-fetched (it is next to impossible to disguise the taste and aroma of rancid meat and, in addition, people would be sickened if it were eaten). There is ample evidence, however, as well as ancient medical systems such as Ayurveda in India, that assert various health benefits from spices and herbs. Not only do spices enhance the flavor, aroma, and color of food and beverages, they appear to possess antioxidant, anti-inflammatory, glucose- and cholesterol-lowering properties, and some effects that affect cognition and mood, among other traits. While a recent study shows little evidence that spice use reduces infection with antimicrobial effects,<sup>37</sup> other properties of individual spices are beginning to be documented by Western scientists. Other researchers in older studies speculate that eating chili peppers (and, by extension, other hot seasonings such as mustard, horseradish, and wasabi) is a benign form of risk-taking that provides a safe thrill,<sup>38</sup> while a recent study in China shows spicy food cravings stimulate certain brain regions when compared to non-cravers.<sup>39</sup>

Unique seasoning combinations, termed *flavor principles*, typify the foods of cultural groups worldwide. They are so distinctive that few people mistake their use. For example, a dish flavored with soy sauce is Asian and not European. These seasoning combinations are often found in the complementary foods of the core and complementary foods model, providing the flavors associated with the starchy carbohydrates that are the staples of a culture. They usually include herbs, spices, vegetables, and a fat or oil, although many variations exist. A principal flavor combination in West Africa is tomatoes, onion, and chili peppers that have been sautéed in palm oil. In the Pacific Islands, a flavor principle is coconut milk or cream with a little lime juice and salt. Yams taste like West African food when topped with the tomato mixture and like Southeast Asia/Oceania food when served with the coconut sauce. Some widely recognizable flavor principles include:

- Asian Indian: garam masala (a spice blend, often coriander, cumin, fenugreek, turmeric, black pepper, cayenne, cloves, cardamom, and chili peppers)
- Brazilian (Bahia): chili peppers, dried shrimp, ginger root, and palm oil
- Chinese: soy sauce, rice wine, and ginger root
- French: butter, cream, wine, bouquet garni (selected herbs, such as tarragon, thyme, and bay leaf)
- German: sour cream, vinegar, dill, mustard, and black pepper

- Greek: lemon, onions, garlic, oregano, and olive oil
- Italian: tomato, garlic, basil, oregano, and olive oil
- Japanese: soy sauce, sugar, and rice wine vinegar
- Korean: soy sauce, garlic, ginger root, black pepper, scallions, chili peppers, and sesame seeds or oil
- Mexican: tomatoes, onions, chili peppers, and cumin
- Puerto Rican: sofrito (seasoning sauce of tomatoes, onions, garlic, bell peppers, cilantro, capers, pimento, annatto seeds, and lard)
- Russian: sour cream, onion, dill, and parsley
- Scandinavian: sour cream, onion, mustard, dill, and caraway
- Thai: fermented fish sauce, coconut milk, chili peppers, garlic, ginger root, lemongrass, and tamarind

It would be incorrect to assume that every dish from each culture is flavored with its characteristic seasoning combinations, or that principal flavor seasoning is limited to just those listed. It is common to find regional variations as well. In China, northern cuisine often includes seasonings enhanced with soybean paste, garlic, and sesame oil. In the south, fermented black beans are frequently added, although in the Szechwan region hot bean paste, chili peppers, or Szechwan (fagara) pepper is more common. In the specialty cuisine of the Hakka, the addition of red rice wine is distinctive. Further, in any culture where the traditional seasoning combinations are prepared at home, not purchased, modifications to suit each family are customary.<sup>40</sup> For example, in India, garam masala is often unique to each family's preferred mix of spices. Flavor principles are therefore more of a marker for each culture's cuisine rather than a rigid rule.



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A few cuisines have extremely limited seasonings, including the fare of the Inuits. Broadly speaking, cuisines offering large portions of meat and other protein foods tend to be less seasoned than those with a higher proportion of grains, fruits and vegetables, and legumes.

The sprig of parsley added to a plate of food may have originated to sweeten the breath, but also because of folklore incorporating the length of time it took to germinate the plant—parsley, it was said, had to travel to the Underworld and back before it could grow. This idea then led to depictions of Persephone (Queen of the Underworld in Greek mythology) carrying a parsley sprig to Hades and back to get it to germinate, which led to ideas of death and protection. The idea of protection landed parsley on your plate of food today to safeguard the meal from evil.

In many homes, few meals are eaten as a family. The term *grazing* refers to grabbing small amounts of food throughout the day to consume. There are an estimated 7 million vending machines in the United States, with over 100 million customers daily.

## Meal Patterns and Meal Cycles

People in every culture dine on at least one meal each day, and meal patterns and meal cycles reveal clues about complex social relations and the significance of certain events in a society.<sup>41</sup> The first step in decoding these patterns and cycles is to determine what types of food constitute a meal within a culture.

In the United States, for instance, cocktails and appetizers or coffee and dessert are not considered meals. A meal should consist of a main course and side dishes; typically, a meat, vegetable, and starch. In the western African nation of Cameroon, a meal is a snack unless cassava paste is served. In many Asian cultures, a meal is not considered a meal unless rice is included, no matter how much other food is consumed. A one-pot dish is considered a meal if it contains all the elements of a full meal. For example, American casserole dishes often feature protein, vegetables, and a starch, such as tuna casserole (tuna, peas, and noodles). In England, it could be shepherd's pie (ground beef, green beans, and tomato sauce topped with mashed potatoes).

The elements that define a meal must also be served in their proper order. In the United States, appetizers come before soup or salad, followed by the entrée and then by dessert. In France, the salad is served after the entrée. All foods are served simultaneously in Vietnam so that each person may combine flavors and textures according to taste. In addition to considering the proper serving order, foods must also be appropriate for the meal or situation. Some cultures do not distinguish which foods can be served at different meals, but in the United States, eggs and bacon are considered breakfast foods, while cheese and olives are popular in the Middle East for the morning meal. Soup is commonly served at breakfast in Southeast Asia, but in the United States soup is a lunch or dinner food, and in parts of Europe fruit soup is sometimes served as dessert. Cake and ice cream are appropriate for a child's birthday party in the United States, wine and cheese are not.

Other aspects of the meal message include who prepares the meal and what culturally specific preparation rules are used. In the United States, ketchup goes with French fries; in Great Britain, vinegar is sprinkled on chips (fried potatoes). Observant Jewish people consume meat only if it has been slaughtered by an approved butcher in an approved manner and has been prepared in a particular way. (See Chapter 4, "Food and Religion," for more information on Judaism.)

Who eats the meal is also important. A meal is frequently used to define personal relationships. Americans are comfortable inviting friends for dinner, but they usually invite acquaintances for just drinks and appetizers. For a family dinner, people may include only some of the elements that constitute a meal, but serving a meal to guests requires that all elements be included in their proper order.

The final element of what constitutes a meal is portion size. In many cultures, one meal a day is designated the main meal and usually contains the largest portions. The amount

of food considered appropriate varies, however. A traditional serving of beef in China may be limited to one ounce added to a dish of rice. In France, a three- or four-ounce filet is more typical. In the United States, a six- or even eight-ounce steak is not unusual, and some restaurants specialize in twelve-ounce or larger cuts of prime rib. American tradition is to clean one's plate regardless of how much is served, while in other cultures, such as those in the Middle East, it is considered polite to leave some food to demonstrate that enough was provided by the host.

Just as individual meals have cultural differences, the number of meals and when they are eaten also varies. In much of Europe, a large main meal is customarily consumed at noontime, for example, while in most of the United States today the main meal is eaten in the evening. In less wealthy societies, only one meal per day may be eaten, whereas in wealthy cultures three or four meals are standard.

The meal cycle in most cultures also includes feasting or fasting, and often both. Feasting celebrates special events, occurring in nearly every society where a surplus of food can be accumulated. Religious holidays such as Christmas and Passover; secular holidays such as Thanksgiving and the Vietnamese New Year's Day, known as Tet; and even personal events such as births, marriages, and deaths are observed with appropriate foods. In many cultures, feasting means simply more of the foods consumed daily and is considered a time of plenty when everyone has enough to eat. Special dishes that include costly ingredients or are time-consuming to prepare also are characteristic of feasting. The elements of a feast rarely differ from those of an everyday meal. There may be more everyday foods or several main courses with additional side dishes and a selection of desserts, but the meal structure does not change. For example, Thanksgiving typically includes turkey and often another entrée such as ham or a casserole (meat); several vegetables; bread or rolls, potatoes, sweet potatoes, and stuffing (starch); as well as pumpkin, mincemeat, and pecan pies or other dessert selections. Appetizers, soups, and salads may also be included.

Fasting may be partial or total. Often it is just the elimination of some items from the diet, such as the Roman Catholic omission of meat on Fridays during Lent or a Hindu personal fast day when only foods cooked in milk are eaten. Complete fasts are less common. During the holy month of Ramadan, Muslims are prohibited from taking food or drink from dawn to sunset, but they may eat in the evening. Yom Kippur, the day of atonement observed by many Jews, is a total fast from sunset to sunset. (See Chapter 4 for more details on fasting.)

## Developmental Perspective of Food Culture

Trends in food, eating, and nutrition also reflect structural changes in society. The developmental perspective of food culture (Table 1.1) suggests how changes may alter how consumers obtain food, as well as types of food and variety. Globalization is defined as the integration of local, regional,





Edwin Tany/Er/Getty Images

▲ Special dishes that include costly ingredients or are time-consuming to prepare are characteristic of feasting in many cultures.

and national phenomena into an unrestricted worldwide organization. The parallel change in cultural food habits is consumerization, the transition of a society from producers of indigenous foods to consumers of mass-produced foods. Traditionally seasonal ingredients, such as strawberries, become available any time of year from a worldwide network of growers and suppliers. Specialty products, such as ham and other deli meats, which were at one time prepared annually or only for festive occasions, can now be purchased presliced, precooked, and prepackaged for immediate consumption.

The social dynamic of modernization with new technologies results in socioeconomic shifts, such as during the Industrial Revolution when muscle power was replaced by fuel-generated engine power or during the 1990s with

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Feasting functions to redistribute food from wealthy to less wealthy, to demonstrate status, to motivate people toward a common goal (e.g., a political fundraising dinner), to mark the seasons and life-cycle events, and to symbolize devotion and faith (e.g., Passover, Eid al-Fitr, Holi, and communion).

From 2001–2018 added sugar intake in the United States among children 2–8 years old and adolescents and teens 9–18 years old declined 3 to 4 percent across sociodemographic factors, but remain above recommended levels. The decline was due mainly to decreases in added sugars from sweetened beverages. The decline also roughly coincides with the reforms in the national school lunch and breakfast programs aimed at improving the nutritional quality of foods in schools.<sup>42</sup>

**Table 1.1** Developmental Perspective of Food Culture

Structural Change	Food Culture Change
Globalization: Local to worldwide organizations	Consumerization: Indigenous to mass-produced foods
Modernization: Muscle to fueled power	Commoditization: Homemade to manufactured foods
Urbanization: Rural to urban residence	Delocalization: Producers to consumers only
Migration: Original to new settings	Acculturation: Traditional to adopted foods

Source: Adapted from Sobal, J. 1999. Social change and foodways. In *Proceedings of the Cultural and Historical Aspects of Food Symposium*. Corvallis: Oregon State University.

the rise of the information age. Cultural beliefs, values, and behaviors are modified in response to the structural changes that take place. Food habits changed, with foods becoming more processed and meals pre-prepared instead of cooked at home. The fresh milk from the cow in the barn becomes the plastic gallon container of pasteurized milk sold online over the Internet to a consumer who has limited time to shop.

Urbanization occurs when a large percentage of the population abandons the low density of rural residences in favor of higher-density suburban and urban residences. Often, income levels do not change in the move, but families who previously survived on subsistence farming become dependent on others for food. Delocalization occurs when the connections among growing, harvesting, cooking, and eating food are lost, as meals prepared by anonymous workers are purchased from convenience markets and fast-food restaurants.

Finally, the migration of populations from their original homes to new regions or nations creates a significant shift from a home-bound, culture-bound society to one in which global travel is prevalent and immigration common. Traditional food habits are in flux during acculturation to the diet of a new culture and as novel foods are introduced, they become accepted into the majority cuisine. Often, new traditions emerge from the contact between diverse cultural food habits.

The developmental perspective of food culture assumes that cultures progress from underdeveloped to developed through the structural changes listed. Deliberate efforts to reverse that trend can be seen in the renewed popularity of farmers' markets in the United States and attacks on fast-food franchises in Europe. Other evidence of resistance includes the work of the Slow Food movement—mobilizing against the negative effects of industrialization—and the seed banks that have opened throughout the world to promote genetic diversity and save indigenous plant populations.<sup>43–45</sup>

## Individual Food Habits

Each person lives within his or her culture, mostly unaware of the influences exerted by that culture on food habits. Eating choices are typically made according to what is obtainable, what is acceptable, and what is preferred: the diet is determined by availability and by what each person considers edible or inedible. Beyond that, factors that influence an individual's food selection are taste, cost, convenience, self-expression, well-being, and variety, which are explained in the consumer food choice model, discussed later in the chapter.

### Food Availability

A person can select a diet only from available foods. Local ecological considerations such as weather, soil, and water conditions; geographic features; indigenous vegetation; the native animal population; and human manipulation of these resources through the cultivation of plants and domestication of livestock determine the food supply at a

fundamental level. A society living in the cool climate of northern Europe is not going to establish rice as a core food, just as a society in the hot wet regions of southern India is not going to rely on oats or rye. Seasonal variations are a factor, as are climactic events, such as droughts, that disrupt the food supply.

The political, economic, and social management of food at the local level is typically directed toward providing a reliable and affordable source of nourishment. Advances in food production, storage, and distribution are examples. However, the development of national and international food networks has often been motivated by other needs, including profit and power. The complexity of the food supply system has been examined by many disciplinary approaches. Historians trace the introduction and replacement of foods as they spread regionally and globally. Economists describe the role of supply and demand, the commodity market, price controls, trade deficits, and farm subsidies (as well as other entitlements) on access to food. Psychologists investigate how individual experience impacts diet; political scientists detail how fear of biotechnology, bioterrorism, and disease (such as the mad-cow or bovine spongiform encephalopathy scare in Europe) can alter acceptability. Sociologists document how social structures and relations affect the obtainment of food; legal experts debate the ethics of food policies for people who are not able to afford food, are incarcerated, and are terminally ill. This is only a small sampling of the factors influencing food availability. However, except in regions where serious food shortages are anticipated for various reasons including conflict, availability issues are usually not at the forefront of individual food choice for much of the world.

### Edible or Inedible?

The consideration of edible or inedible was one of the earliest food habit models, describing the individual process that establishes the available, appropriate, and personal food habits. Each person's choice of what to eat is generally limited to the foods found in this model.<sup>46</sup>

1. **Inedible foods:** These foods are poisonous or are not eaten because of strong beliefs or taboos (or taboo foods, from the Tongan word *tabu*, meaning “marked as holy”). Foods defined as inedible vary culturally. Examples of frequently prohibited foods include animals useful to the cultural group, such as cattle in India; animals dangerous to catch; animals that have died of unknown reasons or disease; animals that consume garbage or excrement; and plants or animals that resemble a human ailment (e.g., strawberries or beef during pregnancy to protect the infant, as described later).
2. **Edible by animals, but not by me:** These foods are items such as rodents in the United States or sometimes corn in France (where it is used primarily as an animal feed grain). Again, the foods in this category vary widely by culture.

3. **Edible by humans, but not by my kind:** These foods are recognized as acceptable in some societies, but not in your own culture. Some rural South Africans who consider termites a delicacy are repulsed by the idea of eating scorpions, a specialty enjoyed by some Chinese.<sup>47,48</sup>
4. **Edible by humans, but not by me:** These foods include all those accepted by a person's cultural group but not by the individual, due to factors such as preference (e.g., tripe, liver, raw oysters), expense, or health reasons (a low-sodium or low-cholesterol diet may eliminate many traditional American foods). Other factors, such as religious restrictions (as in kosher law or halal practices) or ethical considerations (vegetarianism), may also influence food choices.
5. **Edible by me:** These are all foods accepted as part of an individual's dietary domain.

There are always exceptions to how foods are categorized. It is generally assumed, for instance, that poisonous plants and animals will always be avoided. In Japan, however, fugu (blowfish or globefish) is considered a delicacy despite the deadly toxin contained in its liver, intestines, testes, and ovaries. These organs must be deftly removed by a certified chef as the last step of cleaning (if they are accidentally damaged, the poison spreads rapidly through the flesh). Eating the fish supposedly provides a tingle in the mouth prized by the Japanese. Several people die each year from fugu poisoning.

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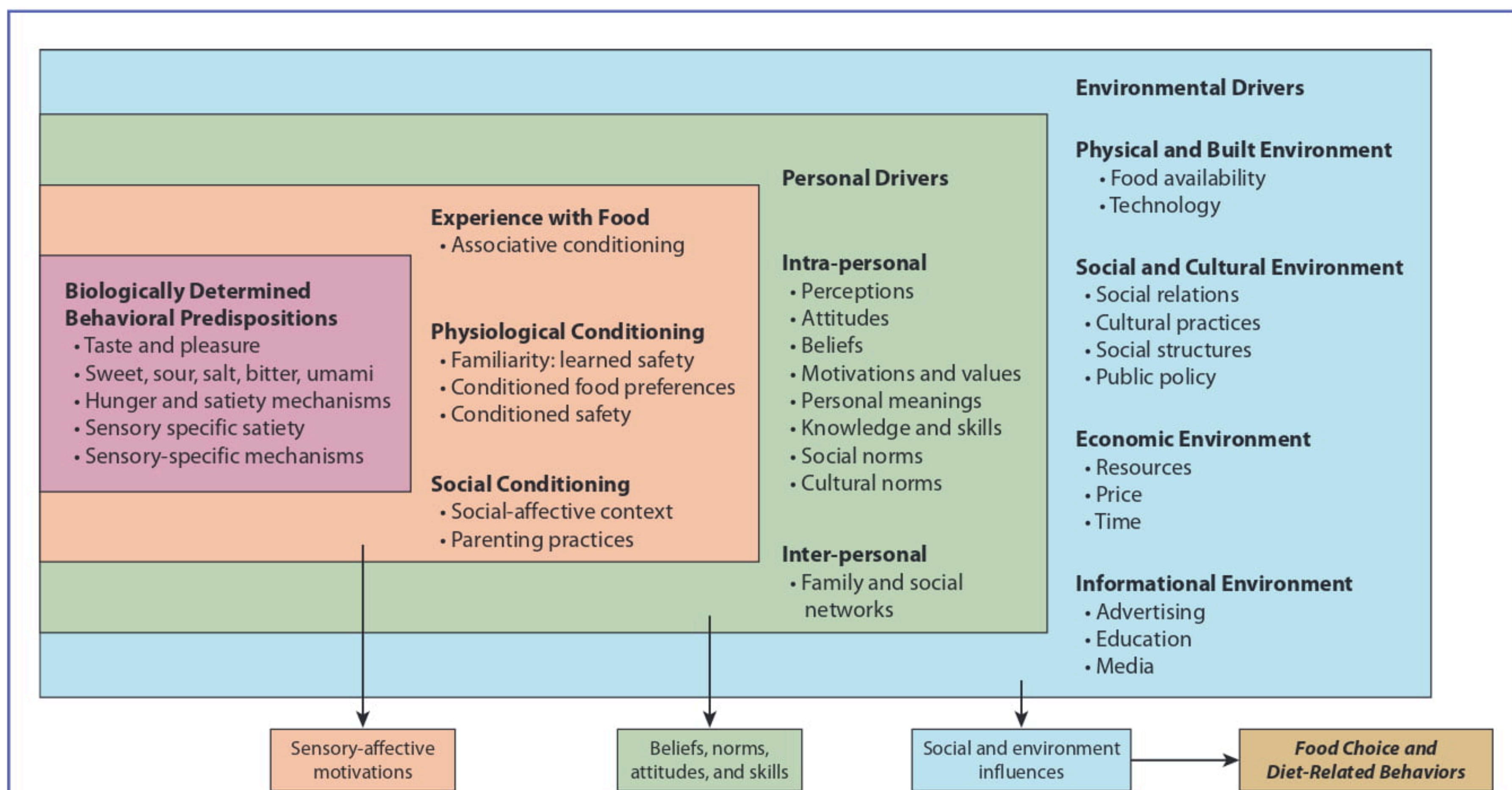
Among the most universal of food taboos is cannibalism, although anthropologists have discovered numerous examples of prehistoric human consumption in European and New World excavations.

There are approximately 2,000 edible insect species, including beetles, caterpillars, bees, ants, crickets, grasshoppers, and locusts. For hundreds of years, native cultures in Asia, South America, Africa, and Europe included the consumption of various insects. In Western societies today, due to cultural biases, edible insects currently have greater potential as animal feed.<sup>49</sup>

## Determinants of Food Choice and Dietary Change Model

An individual's dietary likes and dislikes are established before he or she sets foot in a restaurant, deli, or supermarket. The food choice model (Figure 1.3) explains the factors that influence individual decisions.<sup>50</sup>

Food selection is primarily motivated by taste. Taste is defined broadly by the sensory properties detectable in foods: color, aroma, flavor, and texture. Humans anticipate a specific food will have certain sensory characteristics; deviations can signal that the item is poisonous or spoiled. Many of these expectations are developed through early exposure to culturally acceptable and unacceptable foods. For example, most core foods are pale white, cream, or brown in color; however, some West Africans prefer the bright orange of



**Figure 1.3** Determinants of food choice and dietary change.

Source: Adapted from A. Drewnowski, Taste, Genetics, and Food Choice. Copyright © 2002. Used by permission of Adam Drewnowski, PhD.

sweet potatoes, and Southeast Asians/residents of Oceania consider lavender appropriate for the taro root preparation called poi. Should the core item be an unanticipated color, such as green or blue, it may be rejected. Similarly, each food has a predictable smell. Pleasurable aromas may trigger salivation, while those considered disgusting, such as the odor of rotting meat, can trigger an immediate gag reflex in some people. Again, which odors are agreeable and which are disagreeable are due, in part, to which foods are culturally accepted: Strong-smelling fermented meat products (muktuk) are esteemed by some Inuit and some rural Filipinos. Strong-smelling cheese (controlled rotting of milk) appeals to many Europeans, but even mild cheddar may evoke distaste by many Asians and Latinx, though cultural tastes are changing. Appropriate texture is likewise predictable. Ranging from soft and smooth to tough and coarse, each food has its expected consistency. New textures may be disliked: Some Americans object to gelatinous bits in liquid, as found in tapioca pudding or bubble tea, yet these foods are popular in China. Conversely, some Asians find the thick, sticky consistency of mashed potatoes unappetizing. Okra, which has a mucilaginous texture, is well-liked in the U.S. South but can be considered too slimy by those living elsewhere.



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Humans can detect approximately 10,000 different odors, though genetics may determine which odors can be detected. For example, nearly 50 percent of people cannot smell androstenone (also called boar pheromone), which is found in bacon, truffles, celery, parsnips, boar saliva, and many human secretions; however, researchers have found people can be taught to perceive it through daily sniffing.<sup>51</sup> Some people, 22 to 50 percent of the population, also can smell the sulfuric odor in their urine in as little time as 15 minutes after eating asparagus.<sup>52</sup>

The human tongue has receptors for the perception of sweet, sour, salty, bitter, and umami (a sensation produced by several amino acids and nucleotides and often described as a meaty flavor found in aged cheese, wine, mushrooms, and more). It is hypothesized that food choice in all societies is driven, in part, by an inborn preference for the taste of sugars and fats. These nutrients are indicative of foods that are energy dense; a predisposition for sweets and foods high in fat ensures adequate calorie intake, an evolutionary necessity for omnivores with a wide selection of available foods. Sugars and fats are especially pleasurable flavor elements, associated with palatability and satiety (including the texture factor provided by fats, called mouthfeel).

Preferences for sweets (especially when combined with fats) are found during infancy and childhood and peak in early adolescence. The opposite is true for bitterness, which is associated with toxic compounds found in some foods and is strongly disliked by most children. The ability to detect bitterness decreases with age, however, and many adults

consume foods with otherwise unpleasant sulfides and tannins, including broccoli and coffee. Some remain especially sensitive to certain bitter compounds, affecting their other preferences as well; they tend to dislike sweet foods and opt for bland over spicy items. Sourness alone is rarely well-liked but is enjoyed when combined with other flavors, especially sweet. It has been suggested that a preference for the sweet-sour taste prompted human ancestors to seek fruit, an excellent source of vitamins and minerals.<sup>53,54</sup>

Unlike the tastes of sweet, bitter, and sour, babies generally are indifferent to salt until about four months of age. Similar to sugar, children prefer higher concentrations of salt than adults. Their preference for salt is shaped by the frequency of exposure to it after birth, and perhaps perinatally. Excess consumption of salt during pregnancy has been shown to impair cardiovascular function and enhance salt preference in adulthood.<sup>55</sup>

Finally, taste is influenced by flavor principles, the characteristic combinations of core and complementary foods, as well as traditional grouping of meal elements. These traditions are important in providing an expected taste experience and satisfying a need for familiarity with food habits.

Cost is often the second most important influence on food choice, and income level is the most significant socio-demographic factor in predicting selection. In cultures with a limited food supply due to environmental conditions or in societies where a large segment of the population is disadvantaged, food price may be more of a driver than taste, nutritional sufficiency, and well-being. The wealthier the society, the less disposable income is spent on food, and, as income increases, food choices change. Typically, the people of less wealthy cultures survive on a diet dependent on grains or tubers and limited amounts of protein, including meat, poultry, fish, or dairy foods. Only a small variety of fresh fruits or vegetables may be available. People with ample income consistently include more meats, sweets, and fats in their diet (a trend seen in the global popularity of American fast foods), plus a wider assortment of fruits and vegetables.<sup>56,57</sup> When nutritious food is available and affordable, the prestige of certain food items, such as lobster or prime rib, is often linked to cost. Protein foods are most associated with status, although difficult-to-obtain items, such as truffles, can also be pricey.

In the United States, affordability has been found to limit the purchasing of healthy foods, and in some cases, even families with government subsidies find it difficult to meet nutritional needs.<sup>58,59</sup> It is estimated that in 2020 10.5 percent (13.8 million) of households were considered to be food insecure.<sup>60</sup>

A subsistence farmer may have greater access to fresh foods than a person with the same limited income living in a city. In urban areas, supermarkets with a less expensive selection of foods often choose to locate outside low-income neighborhoods, creating a situation where residents may have access only to higher-priced convenience stores or small, independently run groceries with a limited

selection.<sup>59,61–63</sup> Further, access to healthful restaurant dining varies. Studies suggest that predominantly Black American and low-income neighborhoods have more fast-food restaurants per square mile than White neighborhoods, with fewer healthy options.<sup>64–67</sup>

Convenience is a major concern in food purchases, particularly by members of urbanized societies. In some cultures, everyone's jobs are near home, and the whole family joins in a leisurely midday lunch. In urbanized societies, people often work far from home; therefore, lunch is eaten with fellow employees. Instead of a large, home-cooked meal, employees may eat a quick fast-food meal. Furthermore, family structure can necessitate convenience. In the United States, the decreasing number of extended families (with help available from elder members) and increasing number of households with single parents, along with couples whom both work outside the home and unassociated adults living together, all reduce the possibility that any adult in the household has the time or energy to prepare meals. However, studies show that home cooking in the United States is increasing, especially among men, though women still cook much more. The percentage of college-educated men in the United States who cook increased from about 38 percent in 2003 to 52 percent in 2016. College-educated women who cook also increased from about 65 percent in 2003 to 69 percent in 2016. Men with less than a high school education who cook did not change (33 percent), and women with less than a high school education who do the family cooking stayed the same (72 percent).<sup>68</sup> Research indicates that a higher amount of family meals is correlated with more positive health indicators.<sup>69</sup> Furthermore, the quality of dietary intake improves when there is a reduction in spending on food away from home.<sup>70</sup> Convenience generally spurs the increasing number of takeout foods and meals purchased at restaurants. In 2020, the restaurant industry's share of the U.S. food dollar was 51 percent.

Self-expression, how we indicate who we are by behavior or activities, is important for some individuals in food

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Though the physiological response to disgust, nose wrinkling, retraction of the lips, gaping, gagging, and even nausea seems instinctual, it is a cognitively sophisticated feeling that develops in children between the ages of four and seven years old. Which items are disgusting in a culture is learned from parents and peers.<sup>71</sup>

A fifth type of tongue receptor has been found for *umami* (from the Japanese for "savory"). It is the taste associated with such foods as meats, mushrooms, and cheeses.<sup>72</sup> In addition to salt, other flavor preferences may be passed on perinatally.<sup>73</sup>

In 1901, the average American family spent nearly half (45 percent) of their income on food. Today, that figure has decreased to 27 percent of total income on average, and in the highest income brackets it is just 7 percent of income.<sup>74</sup>



Elizabeth Beard/Moment/Getty Images

▲ Regional fare differs throughout the United States and can be consumed for self-expression. The southwestern foods shown here represent one of many distinct regional cuisines.

selection, particularly as a marker of cultural identity. Although the foods associated with ethnicity, religious affiliation, or regional association are predetermined through the dietary domain, it is worth noting that every time a person makes a food choice he or she may choose to follow or ignore convention. Ethnic identity may be immediate, as in persons who have recently arrived in the United States, or it may be remote, a distant heritage modified or lost over the generations through acculturation. An individual who has just immigrated to the United States from Japan, for instance, may be more likely to prefer traditional Japanese cuisine than a third- or fourth-generation Japanese American.

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The status of food can change over time. In early years, lobster was so plentiful it piled up on beaches after storms, and colonists considered it fit only for Native Americans, prisoners, or starving settlers.

Religious beliefs are similar to ethnic identity in that they may have a great impact on individual food habits or an insignificant influence depending on religious affiliation and degree of adherence. Many Christian denominations have no food restrictions, but some, such as the Seventh-day Adventists, have strict guidelines about what church members may eat. Judaism requires that only certain foods be consumed in certain combinations, yet most Jewish people in the United States do not follow these rules strictly (see Chapter 4).

A person may also choose foods associated with a specific region. In the United States, the food habits of New England differ from those of the Midwest, the South, and the West, and local specialties such as Pennsylvania Dutch, Cajun, and Tex-Mex may influence the cooking of all residents in those areas.

Self-identity can be another factor in food selection, as discussed previously. An environmentalist may be a vegetarian who prefers organic, locally grown produce, while a gourmet or foodie may patronize small markets

in ethnic neighborhoods throughout a city searching for unusual ingredients. Advertising has been directly related to self-expression, especially self-identity. Research indicates that in blind taste tests people often have difficulty discriminating between different brands of the same food item. Consumer loyalty to a particular brand is believed more related to the sensual and emotional appeal of the name and packaging.<sup>75,76</sup> For example, similar-tasting flake cereals such as Wheaties® (which touts itself as the “breakfast of champions”), Special K®, and Total® target sports enthusiasts, dieters, and health-conscious individuals, respectively.

Advertising also promises food-provided pleasure, appealing to the desire of consumers to be seen as popular, fun-loving, and trendy. The exploitation of sex to sell hamburgers and beer is common, as are suggestions that eating a chocolate or drinking a soft drink will add zest to living. A study of television food ads targeting children found that 75 percent were associated with “good times,” 43 percent with being “cool and hip,” and 43 percent with feelings of happiness.<sup>77–79</sup> Such advertising is a reflection of a larger trend: food as entertainment, the vicarious enjoyment of eating through reading about it or watching food-related programs on television, also called food porn.<sup>80</sup> In the United States, nearly 150 food and wine magazines are published monthly, and magazines that do not have food as the primary focus often have a food section. Food coverage is one segment of print media that continues to grow. In addition, almost 500 million food and wine books are sold annually, digital food blogs are very popular, and numerous network cooking and dining shows air daily with millions of viewers. The impact of this media on food choice is not yet fully known. Food entertainment may popularize certain ingredients, such as kale or mangoes, or cuisines, such as Spanish fare, or updated traditional American dishes like spicy meatloaf and macaroni and cheese. They may also set such a high standard of preparation and presentation that some home cooks feel inadequate, choosing to dine out or select prepackaged items instead of making meals from scratch.

Physical and spiritual well-being is another food choice consideration for some individuals. Physiological characteristics, including age, gender, body image, and state of health, often impact food habits. Preferences and the ability to eat and digest foods vary throughout the life cycle. Pregnant and lactating women commonly eat differently than other adults. In the United States, women are urged to consume more food when they are pregnant, especially dairy products. They are also believed to crave unusual food combinations, such as pickles and ice cream. They may avoid certain foods, such as strawberries, because they are believed to cause red birthmarks.

In some societies with subsistence economies, pregnant women may be allowed to eat more meat than other family members; in others, pregnant women avoid beef because it is feared that the cow’s cloven hoof may cause a cleft palate in the infant. Most cultures also have rules regarding which

foods are appropriate for infants; milk is generally considered wholesome, and sometimes any liquid resembling milk, such as nut milk, is also believed to be nourishing.

Puberty is a time for special food rites in many cultures. In the United States, adolescents are particularly susceptible to advertising and peer pressure. They tend to eat quite differently from children and adults, rejecting those foods typically served at home and consuming more fast foods and soft drinks. A rapid rate of growth at this time also affects the amount of food that teenagers consume.<sup>81</sup>

The opposite is true of older adults. As metabolism slows, caloric needs decrease. In addition, they may develop a reduced tolerance for fatty foods or highly spiced items. Eating problems tend to increase as we age, such as the inability to chew certain foods or disinterest in cooking and in dining alone. It is predicted that the shift toward an older population in the next two decades will result in a change in the types of foods purchased (an increase in fruits, vegetables, fish, and pork because older adults consume these items more often than younger adults do) and reductions in the total amount of food consumed per capita (because older adults eat smaller amounts of food).<sup>82,83</sup>

Gender has also been found to influence eating habits. In some cultures, women are prohibited from eating specific foods or are expected to serve the largest portions and best pieces of food to men. In other societies, food preference is related to gender. Some people in the United States consider steak to be a masculine food and salad to be a feminine one, or that men drink beer and women drink white wine. Research has shown that gender differences affect how the brain processes satiation responses to chocolate, suggesting that men and women may vary in the physiological regulation of food intake—perhaps accounting for some food preferences.<sup>84,85</sup>

A person’s state of health also has an impact on what is eaten. A chronic condition such as lactose intolerance or a disease such as diabetes or celiac disease requires an individual to restrict or omit certain foods. An individual who is sick may not be hungry or may find it difficult to eat. Even minor illnesses may result in dietary changes, such as drinking ginger ale for an upset stomach or hot tea for a cold. Those who are on weight-loss diets may restrict foods to only a few items, such as grapefruit or cabbage soup, or a certain category of foods, such as those low in fat or carbohydrates. Those who are exceptionally fit may practice other food habits, including carbohydrate loading or consumption of high-protein bars. In many cultures, specific foods are often credited with health-promoting qualities, such as ginseng in Asia or chicken soup in eastern Europe. Corn in Native American culture may be selected to improve strength or stamina. Well-being is not limited to physiological conditions; spiritual health is equally dependent on diet in some cultures where the body and mind are considered one entity. A balance of hot and cold or yin and yang foods may be consumed to avoid physical or mental illness. (Refer to Chapter 2, “Traditional Health Beliefs and Practices.”)