

Health in the United States: Are Appeals to Choice and Personal Responsibility Making Americans Sick?

Perspectives on Psychological Science
 2020, Vol. 15(3) 643–664
 © The Author(s) 2020
 Article reuse guidelines:
sagepub.com/journals-permissions
 DOI: 10.1177/1745691619896252
www.psychologicalscience.org/PPS



Cayce J. Hook  and Hazel Rose Markus

Department of Psychology, Stanford University

Abstract

The United States suffers high rates of preventable lifestyle disease despite widespread calls for people to take responsibility for their health. The United States also stands out in its rejection of government action to guide industry practices and consumer choices. Why? We examine how deeply rooted cultural narratives about “free choice” and “personal responsibility” infuse policymaking, advertising, media, social norms, and individual attitudes about health in the United States. We argue that these narratives contribute to ill health in the United States: They encourage stress and worry over health, blame and stigmatization of the unhealthy, widened health disparities, and the failure to adopt policies that could save lives. Psychologists can play a major role in expanding narratives about health so that they include the role of personal choice and responsibility but also reflect current science about the physical, social, and cultural drivers of health. These broader narratives can be used to promote a more comprehensive understanding of health and to better inform the design, communication, and implementation of effective health-supportive policies.

Keywords

health, policy, culture, individualism, choice, personal responsibility, United States

“Health is your choice and your responsibility”: This is a dominant refrain in the United States. Best-selling health and diet books explain that “a long and healthy life is largely a matter of choice” (Greger & Stone, 2015, p. 404); that “we can’t rely on anyone to take care of our health for us. We have to take responsibility by choosing to make healthy lifestyle choices each and every day” (Andrew, 2007, p. ix); and that “the only person’s health and wellness you are responsible for is yours” (Hartwig & Hartwig, 2014, p. 233). Industry groups advertise that “healthy living is a choice. In fact it’s many choices” (Americans for Food and Beverage Choice, 2016). Magazines write that “premature death can be prevented . . . mostly by people making changes to their lifestyle” (Park, 2014). Public-health departments instruct that “many chronic diseases are linked to lifestyle choices that are within your own hands to change” (New York State Department of Health, 2016). Government officials declare that “our physical and emotional well-being is dependent on measures that only we, ourselves, can affect” and that “personal responsibility truly is the key to good health” (U.S. Department of Health and Human Services, 1991, p. v). In media and popular culture and in public

statements by government and industry, the same message can be found: Health is up to you.

Despite this drumbeat of encouragement, Americans die younger and experience more illnesses and injuries than their counterparts in other high-income countries—even though the United States spends by far the most on health care (Institute of Medicine & National Research Council, 2013). Aside from unintentional injuries (e.g., motor vehicle crashes, firearm accidents, and drug overdoses), most deaths in the United States are caused by chronic “lifestyle” diseases—heart disease, cancer, chronic lower respiratory disease, stroke, and diabetes—which are associated with the ways people live. Estimates by researchers at the Centers for Disease Control and Prevention (CDC) suggest that up to 40% of these deaths could be prevented (P. W. Yoon, Bastian, Anderson, Collins, & Jaffe, 2014). Why are rates of preventable disease so high, and what should be done to

Corresponding Author:

Cayce J. Hook, 450 Jane Stanford Way, Building 420, Stanford University, Stanford, CA 94305
 E-mail: caycehook@gmail.com

prevent them? The causes of ill health are complex and multifactorial, yet the answers offered by mainstream U.S. culture are strikingly narrow: *Poor personal choices* are the primary cause of ill health, and *more personal responsibility* is the primary solution. We contend that constant exposure to this narrative may be *harming* health and well-being in the United States.

How could concepts as positive—and foundational to American life—as free choice and personal responsibility harm health and well-being? Certainly, such statements can be positive and empowering. Choice and responsibility can provide powerful motivation and encourage people to take action to improve their health. Yet a focus on choice and personal responsibility paints an incomplete picture of the drivers of health. It distracts attention from the role of social and environmental factors in shaping health—factors that individuals generally cannot affect alone, such as pollution, public safety, occupational hazards, inequality, and affordability of healthy foods and quality health care. According to the Yoon et al. (2014), the leading risk factors for preventable disease—including tobacco and alcohol use, diet, lack of physical activity, and exposure to pollutants—do not occur randomly but are “closely related to the social, demographic, environmental, economic, and geographic attributes of the neighborhoods in which people live and work” (p. 372). Relationships, social norms, institutional policies, and pervasive cultural ideas all influence a person’s opportunities for making “healthy” choices and the ease with which such choices can be made. Many everyday environments in the United States make healthy behaviors difficult, expensive, time-consuming, or counternormative, whereas unhealthy behaviors are often cheap, convenient, widely promoted, and normative (Brownson, Boehmer, & Luke, 2005; Chaput, Klingenberg, Astrup, & Sjödin, 2011; French, Story, & Jeffery, 2001; Miller, Reedy, Kirkpatrick, & Krebs-Smith, 2015; Perkins, Perkins, & Craig, 2010; Powell, Chaloupka, & Bao, 2007; Powell, Szczypka, Chaloupka, & Braunschweig, 2007). These environmental factors can reduce people’s freedom to make healthy choices and hinder personal responsibility (Adler & Stewart, 2009; Brownell et al., 2010). In this context, calls for better choices and greater personal responsibility can be ineffective or even counterproductive.

To illustrate how powerful and pervasive narratives about choice and personal responsibility may be harming health and well-being in the United States, we use the framework of the “culture cycle” (Markus & Conner, 2014). Drawing together research from psychology, communication, and public health, we show how public policy, media coverage of health, interpersonal interactions, and individual attitudes largely converge on a

particular narrative about health: Health is determined by individual choices, and these choices are a personal concern—one with which governments (or even friends and family) have little business interfering or attempting to change.

In the second part of the article, we discuss the limitations of this narrative and explore its negative consequences. A pervasive focus on personal responsibility increases individuals’ stress and worry over health, encourages blame and stigmatization of the unhealthy, and erodes trust in medical expertise. Furthermore, the belief that health choices are a personal concern—outside the appropriate scope of government intervention—leads to the adoption of policies that may inadvertently widen health disparities and slows or stalls the adoption of policies that could save lives.

In the third part, we consider how psychological science can address the negative consequences of this personal-responsibility-centric ethos in health. We argue that psychological research can play a critical role in broadening narratives about health beyond a narrow focus on individual choices. We identify four key pillars of this broadened, empirically informed narrative about health and highlight opportunities for research that could harness these ideas to inform the design, communication, and implementation of more effective health-supportive policies.

Preventing Lifestyle Disease: Personal Responsibility and the “Nanny State”

Rather than simply encouraging people to make better choices in the face of considerable social, practical, and material barriers, it is often more effective to address *upstream* factors—to change the environment in ways that make healthy behaviors easier and unhealthy behaviors harder to do (Bauer, Briss, Goodman, & Bowman, 2014; Capewell & Capewell, 2018; Diepeveen, Ling, Suhreke, Roland, & Marteau, 2013; Frieden, 2010; Mann, Tomiyama, & Ward, 2015; Steinberg, 2015; Stokols, 1992). Examples of such policies include bans on smoking in public, reductions in the sodium content of foods, or taxes on tobacco, alcohol, and sugary beverages. Such policies are recommended by major health organizations and have been effective—and popularly accepted—in other countries.

Yet in the United States, despite the efforts of public-health researchers and advocates, these policies are often decried as unfairly restricting freedom and displacing personal responsibility. Under this view, a government that seeks to restrict or influence unhealthy choices is similar to a nanny that presumes to know what is best for its citizens and treats them like petulant children who are incapable of making their own

decisions. Reactions against “nanny state” policies can be swift and harsh. Consider a recent example.

In 2012, in an effort to combat rising rates of obesity, former New York City Mayor Michael Bloomberg announced a 16-oz limit on portion sizes of sugary drinks. The beverage industry swiftly responded with ad campaigns on local radio, television, social media, and mass transit depicting Bloomberg as a nanny in a dowdy dress and asserting that “You only *thought* you lived in the land of the free” and “It’s your food. It’s your drink. It’s your freedom” (Center for Consumer Freedom, 2012). News coverage of the policy was negative: More than two thirds of stories focused on how the policy went beyond the government’s proper role and responsibilities (Donaldson et al., 2015). The majority of city residents opposed the policy and called it “an infringement of civil liberties,” “a big overreach,” and “the nanny state going off the wall” (Grynbaum & Connelly, 2012). Cover art on the *New Yorker* depicted a pulp noir scene: a couple in a dark alley caught clandestinely sharing an oversized cup of soda (O. Smith, 2012). *The New York Times*’s editorial board criticized the “soda ban” as a case of “too much nannying” (“A Ban Too Far,” 2012). Faced with the opposition of industry groups, media, and the public, the portion size rule was ultimately struck down in court and Bloomberg enshrined as a symbol of an overbearing nanny state.

Notable in this episode was the confluence between the responses of individual citizens, major media outlets, and industry groups. The industry group ads sought to turn individual opinion by appealing to widely shared and historic notions of freedom and antipathy to government overreach. Media stories both reported on and sharpened negative public reactions to the policy. All affirmed powerful American cultural ideas of choice and freedom from government interference. And jointly, all reinforced a physical reality in which large sugary drinks are widely available and promoted—as well as a philosophical commitment to the notion that effortful, responsible individual choices are the only appropriate response to a sugar-laden landscape.

Central to our argument is that these fears about nannying and government overreach are influenced, given form, and perpetuated throughout the culture cycle: not just in the minds of individual citizens but in the actions and public statements of government, nonprofit, and industry groups; cultural artifacts such as advertisements and media stories; and in daily social interactions. Understanding these mutually reinforcing interactions between multiple levels of culture is key to understanding the power and reach of the idea that health is merely a matter of free choice and personal responsibility—and in illuminating its psychological consequences.

The American Culture Cycle of Choice and Personal Responsibility

In discussing “mainstream U.S. culture,” we acknowledge that the United States has diverse ethnic, racial, regional, and social class cultures—some with distinct approaches to health and wellness. Yet broad patterns can be observed nationally in how health tends to be conceptualized, discussed, and pursued. What follows is a distillation of a particularly pervasive and powerful narrative about health in the United States. In our analysis, we focus in particular on how health is represented in national media, public statements by federal officials, and awareness campaigns run by major health organizations. We also draw on national surveys to examine how individuals understand the causes of good health, approach social interactions involving health behavior, and view policies aimed at influencing health behavior. We conceptualize health behavior and choices broadly and include medical care as well as lifestyle factors, such as diet and exercise, and safety behaviors, such as seat belt, sunscreen, and helmet use.

To organize our analysis, we draw on the culture cycle model, which examines culture in terms of four interacting levels: individuals, interactions, institutions, and ideas (Markus & Conner, 2014; see Fig. 1). In this model, individuals are simultaneously products and producers of their cultures. Cultural ideas, institutions, and interactions encourage individuals to think, feel, and act in particular ways; at the same time, the thoughts, feelings, and actions of individuals shape the broader cultures to which they belong. This model does not separate the cultural from the structural: Institutions require ideas to animate them, and ideas require structures to lend them influence and power (see Markus & Hamedani, 2020).

At every level, mainstream U.S. culture amplifies the message that health depends on responsible personal lifestyle choices. At the same time, parallel messages emphasize that freedom of choice should be maximized—including the freedom to engage in unhealthy and risky behaviors. As we argue, these ideas—as they currently manifest in policy decisions, norms, and psychological experiences—together produce an array of negative consequences.

Foundational ideas

We begin with a discussion of several foundational ideas that shape contemporary approaches to health in the United States. These ideas include pervasive, historically derived, and often invisible assumptions about what is true of the world, efficient, morally right, and

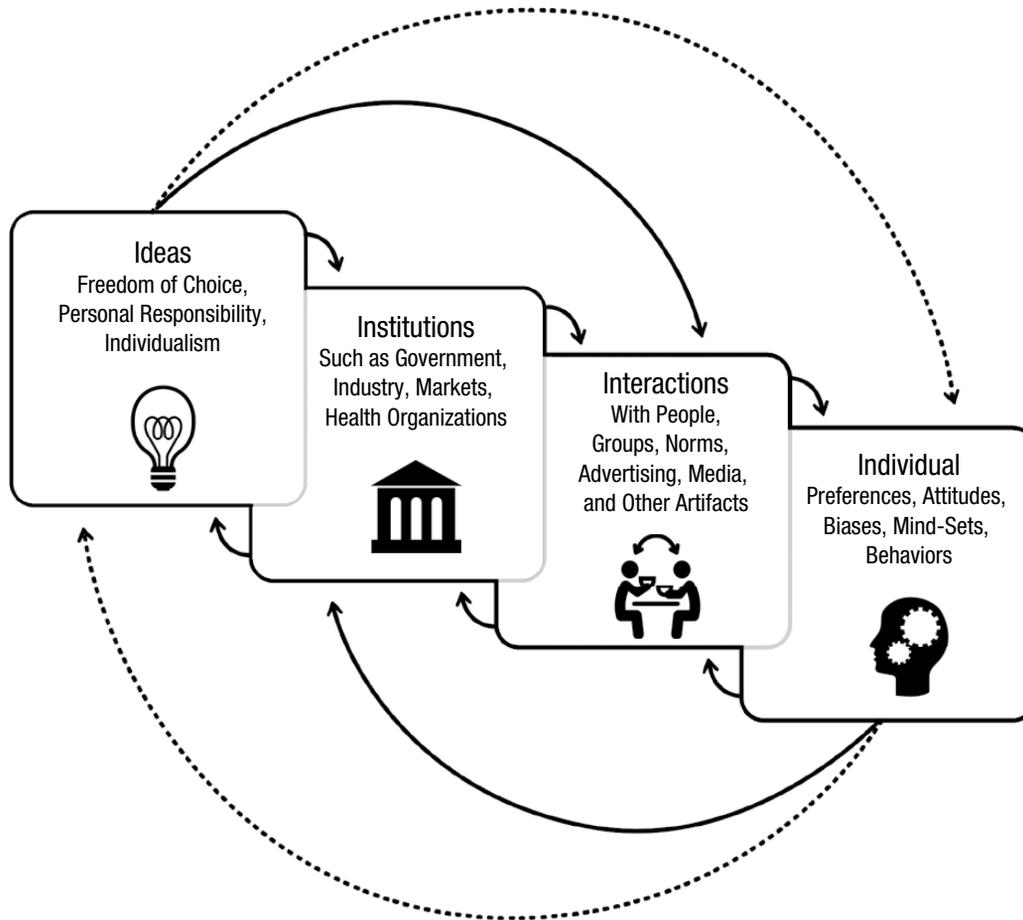


Fig. 1. The interacting levels of the mainstream U.S. culture cycle of choice and personal responsibility. In this model of culture, all four levels are assumed to be equally important, and none are assumed to be theoretically prior to the others. The arrows from one level to another indicate that cultures are dynamic, and all levels of the culture cycle continually influence each other: A change in one level can instigate changes in others. Adapted from Markus and Conner (2014).

necessary (Markus & Conner, 2014; Shweder, 2003). In the United States, answers to these questions center around the individual.

Individualistic understanding of health. In individualistic cultures such as the United States, people are understood as autonomous, distinct from others, independent, and free from collective control; behavior is understood as primarily driven by personal preferences, goals, attitudes, and knowledge rather than being driven by social norms or other “external” influences (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Fiske, Kitayama, Markus, & Nisbett, 1998; Triandis, 1995). Health is likewise understood through the lens of the individual. Individual behaviors, such as eating the right things and exercising, are judged as more significant causes of health than environmental and social factors, such as one’s relationships, where one lives and works, health care, food availability, and public policies

(Conner, Boles, Markus, Eberhardt, & Crum, 2019; Robert & Booske, 2011). A person’s health is primarily understood as consequential for that person alone and is only secondarily—if at all—thought of as affecting others or society.

Personal responsibility. Americans, more than citizens of most other wealthy Western nations, believe that success in life is within individual control and that working hard is very important to getting ahead in life (Pew Research Center, 2016). Three quarters of Americans agree that “people are in control of their own health” and “people’s health is in their own hands” (Hook & Markus, 2019). Cultural roots in the Protestant ethic demand that individuals take responsibility for working hard to succeed (Quinn & Crocker, 1999; Spence, 1985; Uhlmann & Sanchez-Burks, 2014). Within this ideology, a lack of success—including failure to maintain good health—signifies laziness, carelessness, and moral failure.

Freedom of choice. The United States, described in its national anthem as “the land of the free” and founded with its Declaration of Independence, is rooted in the idea of freedom from those who would assert undue influence. As historian Eric Foner wrote, “no idea is more fundamental to Americans’ sense of themselves as individuals and as a nation than freedom” (1999, p. xiii). Indeed, former House Majority Leader Richard Arney wrote, “No matter what cause you advocate, you must sell it in the language of freedom” (1995, p. 67). Although freedom has had multiple, contested meanings throughout U.S. history, popular discourse since the Reagan era has often represented freedom as unrestrained individual choice—and in particular, the absence of “government interference” in one’s choices (Foner, 1999, p. 322).

Resistance to government interference. Americans rate the absence of government interference in their choices as an extremely important condition for freedom (T. W. Smith, Davern, Freese, & Hout, 2018). Unlike citizens of many other countries, Americans rate freedom from government interference as more important than the government guaranteeing that nobody is in need (Pew Research Center, 2016). In the context of rules that govern behavior, it is commonly argued that people should be allowed to do as they please as long as their actions bring others no harm. This understanding of freedom echoes John Stuart Mill’s (1859/2011) *On Liberty*, which proclaimed that “the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant” (p. 6). Under this view, many public-health policies that would constrain individual choices are seen as actions of an overreaching nanny state.

Institutions

The “institutions” level of the culture cycle includes the government and legal, economic, educational, and scientific institutions that spell out and formalize the rules for society. People are typically unaware of all the laws and policies at play in their cultures, yet institutions exert formidable power by giving shape and voice to cultural ideas and providing incentives that foster certain practices and inhibit others (Markus & Conner, 2014; Tankard & Paluck, 2017; Yamagishi & Hashimoto, 2016). In the United States, governments and health organizations distribute public statements that emphasize personal responsibility for health. Partnerships between governments, nonprofit health organizations, and industry groups emphasize consumer choice as a solution to health crises. Industry groups further mobilize these ideas to avoid regulations that would limit unhealthy choices.

Government and health organizations represent health as a matter of personal responsibility. Rhetoric about free choice and personal responsibility appears prominently in discussions of health care. The United States is alone among rich capitalist nations in not guaranteeing citizens basic universal health coverage. Working-age Americans are responsible for choosing and paying for their own insurance coverage, unless their employer voluntarily provides it—a practice that leaves millions of Americans uninsured (Martinez & Cohen, 2012). When discussing the Affordable Care Act (ACA) in 2009, President Obama stated that

we’ve got to have a system that controls costs, *gives people choices*, but makes sure that we’re getting a good bang for the buck. And we’ve got to have the American people doing something about their own care. *Self-responsibility is going to be critical* [emphasis added]. . . . The American people are going to have to participate in their own health. (as cited in Snyderman, 2009)

In 2017, Vice President Mike Pence used similar language to argue for a repeal of the ACA and claimed a repeal would “give more choices to working families” and “bring freedom and individual responsibility back to American health care” (Pence, 2017). Questioned about how many Americans would lose health care coverage if his ACA repeal bill was passed, House Speaker Paul Ryan said that “People are going to do what they want to do with their lives because we believe in individual freedom in this country” (as cited in Schultheis, 2017). Note that these arguments focused on promoting freedom of choice and personal responsibility rather than the specific content of the policy or its effects on health.

Arguments about free choice and personal responsibility—and an affirmation of health choices as an individual concern—frequently accompany efforts to block or overturn policies that regulate health and safety behaviors. When introducing a bill aimed at weakening helmet laws, Congressman Stewart McKinney remarked, “It’s my head. . . . The fact of the matter is that if I [rode without a helmet], I wouldn’t be jeopardizing anyone but myself, and I feel that being required to wear a helmet is an infringement on my personal liberties” (as cited in Jones & Bayer, 2007, p. 213). When introducing a similar bill, North Carolina State Rep. John Torbett stated that, “It is more dangerous not to wear a helmet . . . but that is my personal responsibility, and I have to . . . make that decision on my own” (Campbell, 2017, para. 3). Appeals to personal freedom and personal responsibility have contributed to the weakening or repeal of helmet laws in 31 states (Satkoske, Horner, Polack, Kappel, & Mattson, 2013).

Outside of government, major cancer advocacy organizations frequently focus on personal behavior by running campaigns to raise awareness of specific cancers, highlighting self-protective steps such as wearing sunscreen and quitting smoking, and encouraging people to seek health screenings. Certainly, promoting awareness and self-protective behaviors is important and necessary. Yet individual behaviors are only one way of understanding cancer's causes. Focusing on awareness of personal risk factors can distract from other potential ways of addressing the problem, such as increasing consumer protections from cancer-causing pollutants and pesticides or pressuring corporations to stop selling products containing known carcinogens (King, 2006; Sweeney, 2014). Furthermore, focusing on personal preventive steps may lead certain cancers to become associated with failures of personal responsibility, which could ultimately increase stigma among sufferers. Research suggests that people are more likely to approve of financial discrimination toward patients whose behavior may have contributed to their diseases or even approve of withholding care in favor of more "blameless" patients (Marlow, Waller, & Wardle, 2015; Wittenberg, Goldie, Fischhoff, & Graham, 2003). National expenditures on research funding are suggestive of these priorities. For example, lung cancer accounts for 32% of cancer deaths but only receives 10% of cancer research funding (Carter & Nguyen, 2012). Meanwhile, other cancers perceived as more blameless—such as breast cancer and leukemia—receive high amounts of funding in relation to the economic and mortality burdens they impose on society (Carter & Nguyen, 2012).

Partnerships between nonprofits, government organizations, and corporations direct attention toward consumer choices. Health campaigns often frame health as a matter of making responsible personal choices, even in cases in which one might question the role of industry and public policy in shaping public health. For example, in 2010, the breast cancer advocacy organization Susan G. Komen for the Cure partnered with Kentucky Fried Chicken to sell specially branded pink buckets of chicken for breast cancer awareness ("Join the cause... Each pink bucket makes a difference!"). Critics pointed out the irony of this partnership given that KFC products generally have low nutritional value and their chicken contains high levels of a heterocyclic amine, PhIP, that was identified as a possible carcinogen by the World Health Organization and the National Toxicology Program (Sulik, 2012, p. lxvi). In response to these criticisms, a spokesperson for Susan G. Komen responded that, "Ultimately, we believe that the decision to maintain a well-balanced diet lies in the hands of the consumer" (as cited in Breast Cancer Action, 2010). By presenting buying fast-food chicken

as meaningful way to promote health while simultaneously shifting responsibility for any possible negative health impacts onto individual consumers, the campaign reinforced a narrow view of health: Health depends less on what institutions do than on individual awareness and informed purchasing.

Likewise, the National Heart, Lung, and Blood Institute partnered with Coca-Cola from 2008 to 2014 to promote their "Heart Truth" campaign, aimed at increasing awareness about women's risk of heart disease. The official Heart Truth website focuses extensively on individual action. Special guides for Latina and African American women—who suffer disproportionately high rates of heart disease—advise women to "aim for a healthy weight" and "figure out what's stopping you from making or sticking to healthy lifestyle changes" (National Institutes of Health, 2016). A "Portion Distortion Quiz" reveals how average food portion sizes have increased over the past 20 years and concludes, "We hope that the next time you eat out, you will think twice about the food portions offered to you" (National Institutes of Health, 2009). A suggested script for women to teach their communities about heart disease acknowledges that environments make healthy behavior difficult ("Social pressures and barriers can make it hard to take action. We're bombarded with ads pushing foods that aren't heart healthy. We go to restaurants and get super-sized meals. We can't find a safe place to walk"), but its answer for women is to overcome these barriers through willpower: "Tune out those ads. Don't eat everything on your plate, and eat fewer fast-food meals. Walk at the mall or join your local YWCA... Deal with it. Get on with it. You can do it" (National Institutes of Health, 2008).

Industry groups mobilize "free choice" and "personal responsibility" to resist regulation. It is notable that during roughly the same time period as their partnership with The Heart Truth, Coca-Cola lobbied in opposition of at least 29 local, state, and federal public-health bills that would have facilitated "heart-healthy" behavior, including portion size limits, taxes on sugar-sweetened beverages, labeling laws, and guidelines on marketing to children (Aaron & Siegel, 2017). Arguments about personal responsibility and freedom were central to these lobbying efforts. The American Beverage Association, which has spent over \$64 million since 2009 opposing proposed soda taxes, maintains a website (<http://www.yourcartyourchoice.com>) that shares articles opposing food and beverage regulations and states that "Government regulations won't make people healthy—only diet, exercise and nutrition education can do that. Healthy living is a choice—in fact it's many choices" (Americans for Food and Beverage Choice, 2016).

Food, tobacco, and alcohol industry groups also directly capitalize on narratives of free choice and personal responsibility in arguing against regulations that would limit sales (Balbach, Smith, & Malone, 2006; Brownell & Warner, 2009; Dorfman, Cheyne, Friedman, Wadud, & Gottlieb, 2012; Friedman, Cheyne, Givelber, Gottlieb, & Daynard, 2015; Nixon et al., 2015; S. Yoon & Lam, 2013). Arguments about freedom, autonomy, and individual rights have dominated the tobacco industry's public statements for decades (Menashe, 1998). In the late 1970s and 1980s, tobacco industry representatives argued that concerns about secondhand smoke were "best resolved by individuals exercising common sense" and that providing nonsmoking areas in restaurants "should be a matter of freedom of choice" (as cited in Mejia et al., 2014), that "the American people have said 'Yes' to information and 'No' to intervention," and that regulations would be "inconsistent with the tradition of individual responsibility" (as cited in Friedman et al., 2015).

Other industries continue to take this approach in resisting legislation. In response to proposed age restrictions on the use of indoor tanning beds—which increase the risk of skin cancer—industry representatives argued that rather than regulation, more education on "sunburn prevention" is needed (Innes, 2016) and that it is not "the government's job to take away a parent's responsibilities and rights" regarding teenagers' tanning habits (Salsberg, 2015). Estimates indicated that not passing the age restriction could lead to nearly 62,000 additional melanoma cases and more than 6,700 melanoma deaths, alongside hundreds of millions of dollars in treatment costs, over the lifetimes of American children currently under the age of 14 (Guy, Zhang, Ekwueme, Rim, & Watson, 2017). Yet given the cultural force of individualism, arguments about protecting freedom and preserving personal responsibility are compelling to policymakers and private citizens alike (Jacobson, Wasserman, & Raube, 1993). This rhetoric shapes the space of policies that are considered and adopted while shifting public discussions of health toward focusing solely on individual action.

Interactions with cultural products and social norms

The "interactions" level of the culture cycle refers to the interactions that people have with other people, human-made products or artifacts (including stories, advertisements, social media, tools such as laptops and phones, and architecture), and norms about appropriate ways to think, feel, and act. These interactions constitute most of lived experience at home, school, work, and play (Gelfand et al., 2011; Morling, 2016; Rogoff,

2016). In this section, we focus in particular on how media, advertising, and social norms send the message that health is a matter of personal responsibility and that individuals should avoid interfering in others' health choices. (We return later to a discussion of the ways in which social and physical environments can stand in the way of healthy choices.)

Media and advertising promote personal responsibility. When health threats are discussed in newspapers, magazines, TV news reports, and online media, journalists commonly assign responsibility to individuals and offer solutions in terms of individual action rather than discuss the role that could be played by institutions to reduce or mitigate these risks. For example, an analysis of news coverage of type 2 diabetes found that articles in major U.S. newspapers were 4 times more likely to mention individual lifestyle factors, such as diet and exercise habits, than to mention structural factors such as food availability and affordability, poverty, advertising, and marketing as possible contributors to the disease (Gollust & Lantz, 2009). Of the articles that discussed proposals to treat, manage, or prevent type 2 diabetes, 58% focused on individual behavior change, whereas only 12% mentioned any upstream strategy (e.g., changes to food policy, public-health programs, urban planning, or school-based programs). Media coverage of obesity, breast cancer, and child exposure to lead and other environmental contaminants similarly tends to emphasize individual rather than potential structural or societal causes and solutions (Brown, Zavestoski, McCormick, Mandelbaum, & Luebke, 2001; S.-H. Kim & Willis, 2007; Mello & Tan, 2016; see also MacKendrick, 2010).

Advertising also actively promotes consumers' individual responsibility for managing their own health. For example, exhortations to "drink responsibly" appear on nearly 90% of print ads for beer and liquor in the United States even though there is no legal or voluntary code requiring their presence (K. C. Smith, Cukier, & Jernigan, 2014). Such ads, seemingly targeting careless drinking, signal that when, where, and how much you drink is a personal decision—and that any negative consequences of alcohol use result from individual irresponsibility. Ads for prescription pharmaceuticals, frequently accompanied by symptom and risk checklists and exhortations to "ask your doctor" for prescriptions to name-brand pharmaceuticals, promote the idea that individuals should self-diagnose and choose their own drug treatments rather than defer to medical expertise (Ebeling, 2011).

Social norms and conventions reinforce individual responsibility and individual freedom. Because individual choice and autonomy are prized in U.S. culture, Americans are often reluctant to comment on or

attempt to regulate others' health choices. As they go about their daily lives, people do not necessarily receive social support or personal encouragement to engage in healthy behavior. In one nationally representative survey, the average American respondent reported that it was "rare" for anyone—including spouses and family members—to tell or remind them to do anything to protect their health (Umberson, 1992). As one respondent explained, "People handle their own affairs....As far as being a busybody about other people's health, I don't do it" (Umberson, 1992, p. 915).

Beliefs in the importance of not intervening in others' choices develop with age in the United States. Over time, adolescents increasingly come to view risky health behaviors as a matter of individual rights and responsibilities (Flanagan, Stout, & Galloway, 2008). Whereas younger adolescents in the United States said they would try intervene if a friend was getting drunk, smoking, or experimenting with drugs, older adolescents increasingly said they would ignore these behaviors because it is none of their business (Flanagan, Elek-Fisk, & Galloway, 2004). These beliefs are culturally specific. In the United States, it is often seen as rude to remark on someone's weight, their diet, or other health habits—yet such comments are seen as perfectly acceptable expressions of care in many other parts of the world (Becker, 1995; Spielvogel, 2003).

Although some relationships and contexts are undoubtedly supportive of healthy behavior, in many situations, social norms signal that attempts to regulate others' behavior are inappropriate and disrespectful of individual autonomy. To the extent that this view is endorsed, individuals are left to shoulder the responsibility for making healthy decisions largely on their own.

Individuals

As sketched in Figure 1, these pervasive ideas, institutional policies and practices, social norms, media, and cultural products work together to shape the psychological tendencies of individuals. Yet this broader culture, of course, simultaneously reflects the psychological tendencies of the individuals within it. In the mainstream U.S. context, individual psychological tendencies reinforce the importance of choice, personal control, and personal responsibility.

Choices are self-expressive. In a culture of individualism, choices are an excellent medium for self-expression. Choices about diet, exercise, smoking, drinking, and other health behaviors can be laden with meaning and signal identities, group memberships, and values (Guendelman,

Cheryan, & Monin, 2011; Oyserman, Fryberg, & Yoder, 2007). Expressing choices can lead Americans to become more invested in these choices as well as denigrate unchosen alternatives (H. S. Kim & Sherman, 2007). In this context, the opportunity to make choices can be motivating, whereas limits on choice may be experienced as aversive, threatening, or injurious to the self (Leotti, Iyengar, & Ochsner, 2010; Markus & Schwartz, 2010). (It is worth noting, however, that in many contexts outside mainstream U.S. culture, choices are not primarily self-expressive, and a denial of choice does not undermine motivation and is not associated with threat, reactance, or dissonance; Hamedani, Markus, & Fu, 2013; Kitayama, Snibbe, Markus, & Suzuki, 2004; Savani, Markus, & Conner, 2008; Savani, Markus, Naidu, Kumar, & Berlia, 2010).

A sense of control and responsibility can be motivating. Ample research has documented how feelings of control and autonomy can boost motivation (Lachman & Weaver, 1998; J. Y. Ng et al., 2012; Taylor & Brown, 1988). For example, people report that public-health campaign taglines such as "You have the strength to take control of your health" and "Learn the facts, eat healthy, get active, take action" are motivating (Puhl, Peterson, & Luedicke, 2013). Among sufferers of illness, attributing one's illness to internal, changeable, and personally controllable factors may encourage more active coping strategies, such as planning and seeking information and support, which may ultimately improve psychological adjustment (Roesch & Weiner, 2001). (Once again, it is worth noting that personal choice and personal control are not necessarily the primary sources of motivation in cultural contexts outside the United States; Iyengar & Lepper, 1999; Tripathi, Cervone, & Savani, 2018).

Political attitudes elevate independence, freedom, and personal responsibility. Relative to citizens of many other countries, Americans place a high value on freedom from government interference (Pew Research Center, 2016). When evaluating health policies, Americans tend to favor hands-off approaches, such as information campaigns and product labeling, to policies that more directly constrain consumer choice, such as taxes or restrictions on the sale of health-damaging products—even though policies that more directly constrain consumer choice are more effective than information campaigns (Diepeveen, Ling, Suhrcke, Roland, & Marteau, 2013; Oliver & Lee, 2005).

When thinking about what actions they can take to improve health, Americans tend to focus on changing their own lifestyle and consumption habits. They are much less likely to include engagement in the political process in the repertoire of actions that could be taken

to improve health. Although actions such as voting, signing petitions, contacting representatives, and attending town halls allow individuals to express their preferences and affect policy decisions, self-directed changes to lifestyle and consumption personal habits may seem more immediately meaningful—and a stronger show of personal responsibility. Indeed, Americans have expressed greater faith that they can make a difference through buying products from companies with agreeable values than through contacting their elected representatives (Strach, 2016).

A self-sustaining cycle

Examining these individual psychological tendencies, it may seem clear why personal responsibility and free choice are so omnipresent in mainstream U.S. culture. People *like* and *benefit* from having choices and being encouraged to take control over their own health. Because this is how people *are*, the reasoning goes, it is only natural that society reflects these psychological truths. This line of reasoning obscures two facts: First, these individual psychological tendencies develop and take shape within a context that elevates, rewards, and promotes them. Second, the current culture cycle is itself a product of human agency and psychological tendencies; it could well take a different form (G. Adams & Markus, 2004). Yet the current political and consumer landscape surrounds Americans with the idea that individuals should manage their health alone, through self-directed changes to lifestyle and consumption habits, and through their votes, voices, and purchasing power, Americans fortify this culture cycle. The ideas motivating this culture cycle may seem so self-evident that their reach and force go unnoticed—as does their possible downsides and the possibility of alternatives.

How a Culture Cycle of Choice and Personal Responsibility Fails Us

At each level, mainstream U.S. culture promotes the message that individuals, through the choices they make, are personally responsible for their health outcomes. In so doing, this culture cycle excludes from notice the ways in which many everyday contexts in the United States fail to support healthy choices and healthy behavior. For example, today's "toxic food environments" offer ready access to and extensive marketing for cheap, unhealthy food (Brownell & Horgen, 2004). Fast-food restaurants' offerings have gotten less healthy over time: Over the past three decades, the average portion sizes, calorie counts, and sodium

content of fast-food entrees and desserts have steadily increased, and the overall number of menu items offered has increased by 226% (McCrary, Harbaugh, Appeadu, & Roberts, 2019). Restaurant menus often describe healthier options in less appealing terms, making them less likely to be chosen (Turnwald, Jurafsky, Conner, & Crum, 2017). Candy, soda, and chips can now be found not only at the checkout aisles of supermarkets, convenience stores, and gas stations but also in schools, pharmacies, and the checkout aisles of stores selling home goods, books, electronics, apparel, hardware, and auto supplies (Almy & Wootan, 2015; Farley, Baker, Futrell, & Rice, 2010). Grocery stores, drug stores, and convenience stores devote far less shelf space to fruits and vegetables than to soda, salty and baked snacks, and candy (Farley et al., 2009). Omnipresent snack foods—and marketing—encourage people to eat whatever they want whenever they want, a phenomenon branded a uniquely American "alimentary anarchy" (Lee, 1993).

Outside the realm of food availability, modern social and physical environments make healthy behavior difficult in multiple ways. For example, everyday environments tend to promote sedentary behavior, and sleep can be hampered by light and noise pollution, work schedules, and norms surrounding electronic screen use (Bedrosian & Nelson, 2013; Chaput et al., 2011; Hammer, Swinburn, & Neitzel, 2014). In turn, insufficient exercise and sleep loss promote stress, which may leave people vulnerable to further health-damaging behaviors such as smoking and overeating (D. M. Ng & Jeffery, 2003).

Although many U.S. environments can make healthy behaviors inconvenient, this situation is particularly true of low socioeconomic status and minority neighborhoods, which on average are lower in walkability and bikeability and provide less access to parks and green space, greater pollution levels, and less access to fresh produce (Hajat et al., 2013; Larson, Story, & Nelson, 2009; Powell, Slater, & Chaloupka, 2004; Sallis et al., 2011). These neighborhoods also feature disproportionately more targeted advertising for fast food, tobacco, alcohol, and sugary beverages as well as more ready access to these products (Alaniz, 1998; Hackbarth, Silvestri, & Cospers, 1995; LaVeist & Wallace, 2000; Laws, Whitman, Bowser, & Krech, 2002; Powell et al., 2007; Schneider, Reid, Peterson, Lowe, & Hughey, 2005; Yancey et al., 2009). Furthermore, unhealthy options often come wrapped with the promise of increased choice, autonomy, convenience, and freedom. For example, an ad for Wendy's fast food, run in *Ebony* magazine's "Annual Black Health & Fitness" issue, boasts, "We give your kids more than toys. We give

them choices” (Wendy’s, 2006, p. 19). That many of these “choices” deliver salt, sugar, and fat in unhealthy proportions goes unmarked.

In contexts in which physical and social environments fail to facilitate health, a widespread focus on choice and personal responsibility contributes to an array of overlapping negative consequences.

Policies that cost lives

As we have argued, this culture cycle only permits a few ways by which governments can improve health: provide more choices and more education. Public-health researchers have identified a range of other policies that could effectively save lives without placing extra burdens on individual willpower and decision making, yet the adoption of such policies was slowed, stalled, or reversed completely by arguments for more freedom and greater personal responsibility. As described above, such arguments have slowed adoption of age restrictions on indoor tanning and taxes on sugary beverages—policies projected to reduce rates of disease and premature death if widely adopted (Guy et al., 2017; Wang, Coxson, Shen, Goldman, & Bibbins-Domingo, 2012). Arguments about freedom and personal responsibility also contributed to the repeal of mandatory motorcycle helmet laws across the country, ultimately leading to significant increases in crash-related traumatic brain injuries and deaths (Jones & Bayer, 2007; Satkoske et al., 2013).

Widened health disparities

With more resources comes an increased ability to buy and prepare healthy foods, make sense of nutrition labels, avoid exposure to pesticides and pollutants, find support for quitting smoking or drinking, or join a gym. Painting health as a product of simply deciding to make these “choices” obscures the fact that they are not equally available or universally easy to make.

Furthermore, policies focused simply on providing information and education—which on their face may appear to maximize free choice and personal responsibility—may help the “rich get richer.” Evidence suggests that informational campaigns tend to disproportionately benefit people with the greatest education and financial resources, which may exacerbate health disparities (J. Adams, Mytton, White, & Monsivais, 2016; McGill et al., 2015; Niederdeppe, Kuang, Crock, & Skelton, 2008). In contrast, evidence suggests that stronger interventions, such as taxes on unhealthy foods and cigarettes and subsidies for healthy foods, would be unlikely to widen health disparities and might even narrow them (McGill et al., 2015; Thomas et al., 2008).

Misplaced and counterproductive blame and stigma

In 2017, a White House official suggested that cancer patients should have access to a health care safety net but that society should not be “required to take care of the person who sits at home, drinks Coca-Cola . . . and doesn’t exercise, and eats poorly and gets diabetes” (Mick Mulvaney, as cited in Idelbrook, 2017). Quotes such as these illustrate a commonly drawn distinction between blameless and blameworthy health conditions. Sufferers of diseases seen as reflecting poor choices and a lack of personal responsibility—such as type 2 diabetes, lung cancer, skin cancer, obesity, and alcohol and drug addiction—tend to be blamed for their condition and stigmatized (Bresnahan, Silk, & Zhuang, 2013; Gollust & Lynch, 2011; Lebel & Devins, 2008; Marlow et al., 2015; Shepherd & Gerend, 2014; Weiner, 1995).

This blame and stigma may be misplaced given that vulnerability to these conditions can arise from environmental and genetic factors that lie beyond personal control. Furthermore, blaming and stigmatizing people is counterproductive: Blame and stigma are generally ineffective in motivating behavior change and instead can lead to worse well-being (Major & O’Brien, 2005; Quinn & Crocker, 1999) and worse physical health outcomes (Eccleston, 2008). Perceptions of stigma may hold people back from seeking health screenings and treatment (Fortenberry et al., 2002; Keyes et al., 2010) or may paradoxically *cause* unhealthy behavior among those being blamed and stigmatized. For example, weight stigma can lead to overeating, decreased inhibitory control, and the desire to avoid exercising in public (Araiza & Wellman, 2017; Hunger, Major, Blodorn, & Miller, 2015; Vartanian & Porter, 2016).

Stress and worry over health

In *The Paradox of Choice*, Schwartz (2004) documented how expansions of choice do not necessarily lead to greater happiness and well-being. Rather than perfectly maximizing utility, people facing abundant choices may agonize over decisions and feel anxious about whether they are making the best choices. Having a great deal of choices leads people to see their choices as more expressive of their identity and to have a harder time making decisions (Cheek, Schwartz, & Shafir, 2018). People hoping to eat an optimally healthy diet face an abundance of options and conflicting advice: Are eggs, wine, chocolate, and coffee healthy or unhealthy (Dean, 2014; DiSalvo, 2017; Spritzler, 2016; Storrs, 2017)? Is it better to cut carbs and eat lots of fat and meat (O’Connor, 2014) or cut fat and meat and eat lots of vegetables (Brody, 1990)? The culture cycle emphasizes that these

personal choices are highly consequential, which may increase feelings of worry over health (Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999).

Erosion of trust in medical expertise

By promoting the message that individuals bear responsibility for their own health choices, the current culture cycle may inadvertently promote an erosion of trust in, or deference to, scientific and medical expertise. The increasing trend for direct-to-consumer pharmaceutical advertising to encourage individuals to self-diagnose and seek prescriptions for particular drugs is one such example. Troublingly, surveys have suggested that doctors grant patients' requests for advertised medication even in cases in which they believe the prescription is clinically inappropriate (Murray, Lo, Pollack, Donelan, & Lee, 2003).

The cultural phenomenon of vaccine refusal exemplifies ideas of personal responsibility, free choice, and the idea that health choices only affect the individual taken to the extreme. Although the scientific community has thoroughly rejected the argument that vaccines cause autism or other developmental risks, prominent antivaccine groups argue that vaccine laws violate parents' civil liberties by taking away their choices (Kata, 2010). These groups encourage parents to become "free thinkers" who make themselves the primary experts on their children's health and take sole personal responsibility for deciding whether to vaccinate (Kata, 2010). In a recent nationally representative survey, over a third of respondents reported that they knew *as much as or more than* medical doctors and scientists about the causes of autism. This overconfidence was associated with greater opposition to mandatory vaccination policy and greater belief that parents should be free to choose not to vaccinate their children (Motta, Callaghan, & Sylvester, 2018). Immunizations for contagious diseases crucially benefit others in the community by contributing to herd immunity and reducing the risk of exposure for vulnerable populations, such as infants and the elderly. To avoid vaccination is to give little consideration to the benefits of herd immunity or the risks that unvaccinated individuals pose to others (Reich, 2016).

Broadening Narratives About Health to Shift the Culture Cycle

What can be done to mitigate the negative consequences of this personal-responsibility-focused ethos in health? As we discussed, research indicates that one highly effective way to improve health in the United States would be to adopt policies that change everyday

environments in ways that make healthy behaviors easier to do. Yet standing in the way of policy change is a set of narratives about health that focus attention on personal choices while neglecting the importance of social, environmental, and cultural contributors to health. Mainstream U.S. culture sends the message that health depends on individual choices and that these health choices are a personal matter concerning no one else. Under this narrative, taking action to improve health simply means making responsible personal lifestyle choices.

Psychological science supports broader narratives about health. Health depends on individual choices, but these choices are shaped by and indivisible from physical, social, and cultural environments. Health choices also have impacts that extend beyond the individual. In addition to changing their personal lifestyle habits, individuals can take an active role in changing environments and cultures to support health. Spreading a broader understanding of individual health as inseparable from sociocultural contexts is key to bringing about a more health-supportive culture cycle.

Expanding these narratives about health could begin to reduce barriers to adopting more effective health policies. Evidence shows that behavior change policies are not doomed to be rejected as actions of an overbearing nanny state; policies can receive high levels of support after they are enacted (e.g., seat belt laws). Research can inform the design and communication of health and behavior change policies so that they are understood as health-protective rather than as threatening personal freedom and choice.

Below, we outline four specific narratives, supported by psychological research, that could be harnessed to help create a more health-supportive culture cycle (Table 1).

Health depends on more than just individual choices

Individual choices play an undeniable role in shaping health. Yet by focusing attention on the importance of personal choices, the current culture cycle draws attention away from the role of social and physical environments in shaping health. Building a broad awareness of these influences may be a key precursor to building popular support for policies and practices aimed at creating more health-supportive environments. Indeed, research has found greater support for health policies such as limiting junk food concessions in schools and changing zoning laws to require new developments to include sidewalks and safe paths for physical activity among people who endorse environmental explanations for obesity (Barry, Brescoll, Brownell, &

Table 1. Contrasting the Current Dominant Narrative About Health With a Broader, Psychologically Informed Narrative

Domain	Dominant narrative about health	Expanded, psychologically informed narrative about health	Example research questions
Sources of health	Health depends on individual choices (“your health is up to you”).	Health depends on <i>both</i> individual choices and factors in physical, social, and cultural environments.	<ul style="list-style-type: none"> • How can information about social determinants of health be conveyed effectively, in ways that recognize the importance of choice and personal responsibility? • Can conveying this information increase support for health policies?
Consequences of health	Health is a personal concern (“my health is my business”).	Health has impacts that extend beyond the individual.	<ul style="list-style-type: none"> • Can emphasizing the harms that risky behaviors (e.g., smoking, forgoing vaccination) pose to <i>other people</i> motivate healthy behavior change? • Can emphasizing these impacts increase support for regulations on health-damaging behaviors?
Scope of individual and other action	Individuals focus on making responsible personal lifestyle choices and purchases.	In addition to focusing on themselves, individuals can take an active role in changing their environments and cultures to support health.	<ul style="list-style-type: none"> • How can we motivate individuals to see themselves as shapers of their cultures? • How can we expand the repertoire of health-promoting actions to include those that change the context (e.g., modifying workplace norms and practices, voting for health-supportive policies)?
Role of government and other institutional actors	Behavior change policies (e.g., taxes, bans on unhealthy behavior) are intolerable, ineffective, and best avoided.	Behavior change policies can receive high levels of support and be highly effective and beneficial in supporting health (e.g., seat belt laws).	<ul style="list-style-type: none"> • How do the framing and presentation of health policies affect public support? • How does support for policies change over time, after they are implemented?

Schlesinger, 2009). This finding suggests that broadening public awareness of the social and environmental determinants of health may help shift the culture cycle in a more health-supportive direction.

Promisingly, media analyses have found that an increasing proportion of articles are mentioning environmental and societal causes of obesity over time (Lawrence, 2004). Yet these messages may not always be well received, given that they may appear to contradict current dominant narratives about health. Americans sometimes reject messages about the social determinants of obesity by counterarguing that more personal responsibility is needed (e.g., arguing that a “lack of sidewalks is not an excuse for not walking” and referring to discussions of environmental factors as “just making excuses”; Niederdeppe, Shapiro, & Porticella, 2011).

Given this possible defensiveness, psychologists can play a key role in studying how Americans react to messages about the broader social determinants of health. Some evidence suggests that responses to messages about social determinants of health may vary along political lines. In one study, for example, narratives about social and economic contributors to type 2

diabetes increased support for public-health policies among Democrats but reduced support among Republicans (Gollust, Lantz, & Ubel, 2009). Acknowledging that *both* individual and environmental factors matter in shaping health can help reduce this defensiveness (Gollust & Cappella, 2014). In one study, people read a story about a woman, Michele, who struggled with her weight; the story mentioned numerous environmental factors affecting her health, including a lack of affordable, accessible healthy food; time constraints from a low-paying job; and a lack of safe and affordable places for exercise in the neighborhood. Yet when participants read a version of the story that also included an acknowledgment of personal responsibility (“Michele has always believed that it is her own personal responsibility to be healthy, but it hasn’t been easy”), respondents reported feeling more empathy for Michele and were more likely to support antiobesity policies that would target the social, economic, and physical environments (Niederdeppe, Roh, & Shapiro, 2015). Future research should further examine how information about social determinants of health can be conveyed effectively in ways that recognize the importance of choice and personal responsibility.

Health has impacts that extend beyond the individual

The current culture cycle encourages a narrow, highly individualistic view of health—one that focuses attention on the personal costs and benefits of one's health choices and behavior rather than the impacts these choices might have on other people. Put simply, the dominant narrative is that “my health is my business.” Yet individuals' health choices can have profound effects on their families, friends, and broader communities. There is a need for more research on how people understand these externalities of their personal choices.

For example, when a congressman remarks that “if I rode [a motorcycle] without a helmet, I wouldn't be jeopardizing anyone but myself,” he neglects the possible emotional effects of his injury or death on family, friends, and witnesses to the scene; the resources that others might need to devote to his medical care; as well as the social impact he has on other riders through signaling endorsement of a risky behavior. Likewise, when antitobacco public-service announcements emphasize the price the individual smoker pays, with graphic images that highlight increased risks of cancer, gum disease, heart disease, and death, they neglect other potential costs to family and friends: the emotional toll of watching a loved one suffer from a preventable illness or injury, the loss of companionship and support when a partner or parent dies, the loss of an individual's potential contributions to their communities and society at large when a life is cut short. These conceptualizations of individuals as members of communities that are harmed when the individual is harmed might invite very different approaches to health compared with the popular conceptualization of the individual as a self-contained and independent decision-making agent.

Psychologists can help understand how people can come to see their health and their choices as affecting others. This broader view of health can be harnessed to motivate changes in health behavior. For example, in one study, signs highlighting how “hand hygiene prevents *patients* from catching diseases” motivated health care workers to wash their hands more often, compared with signs that emphasized how “hand hygiene prevents *you* from catching diseases” (Grant & Hofmann, 2011). In another study, explaining the social benefits of vaccination in terms of increased herd immunity increased intentions to vaccinate over and above messages explaining the personal benefits of getting vaccinated (Betsch, Böhm, Korn, & Holtmann, 2017). These effects were particularly strong for people in individualist, Western countries, where collective impacts of personal health decisions may be less salient (Betsch et al., 2017).

Within the domain of infectious diseases, it may be easy to see how one's own behaviors affect others. Other behaviors, such as dietary choices, may seem to pose risks that are largely limited to the individual. Yet ill health, whatever its cause, can have negative consequences for an individual's family, friends, community, and broader society. Can focusing on these social costs of ill health—costs that go beyond the spread of infectious disease—more effectively motivate behavior change compared with typical appeals that focus on costs for the self (Kang et al., 2018; Rothman et al., 2015)? How can these social costs be conveyed effectively within the individualistic cultural context of the United States? And can highlighting these social costs increase public support for regulations on risky behaviors? These are important questions for future research.

Individuals can take an active role in changing environments and cultures to support health

Dominant narratives about health in the United States encourage people to focus their attention on making changes to their own lifestyle habits and personal choices. Although personal choices are clearly important for health, this focus on self-directed action neglects the roles that individuals can play in changing their communities and cultures for the better. In addition to changing personal habits, individuals can direct their energies toward influencing norms, modifying their environments, and advocating for change in institutional policies and practices. Psychologists can play a role in broadening narratives about health such that people see themselves as shapers of culture who can play an active role in helping to create more health-supportive environments and norms.

Understanding the role of social determinants in shaping health may motivate people to take an active role in advocating for policy change. In one study, participants were assigned to read an article about obesity that emphasized the role of social and environmental contributors and focused on health organizations' efforts to “change the environment, to make the healthy choice the easy choice” (Sun, Krakow, John, Liu, & Weaver, 2016). Compared with participants who read an article emphasizing the importance of individual responsibility, people who read about how changes to the social and physical environment can help address obesity subsequently reported greater willingness to volunteer for a government-funded health communication campaign and sign petitions for policies targeting the health environment (e.g., regulating fast-food industries, changing zoning laws to include safe paths to encourage physical

activity). These participants were no less motivated to engage in personal-responsibility-taking behaviors, such as exercising or improving their diets. Future research should continue to investigate how changing narratives about health can encourage people to take a more active role in changing their cultures without reducing their sense of responsibility for engaging in healthy personal habits.

Encouraging people to think of themselves as social influencers may also motivate people to take action to improve their and others' health. Individuals can play a significant role in shaping local norms. For example, encouraging small groups of middle school students to take an active role in promoting anticonflict norms can decrease school-level disciplinary reports of student conflict (Paluck, Shepherd, & Aronow, 2016). In this intervention, students created their own hashtag slogans, made online and physical posters, and handed out wristbands to their peers who engaged in anticonflict behaviors, which ultimately helped to change behavior and reduce disciplinary reports by 30% over the following year. In another study, small groups of college students collaborated with researchers to develop a pro-bicycle-helmet slogan and logo; researchers then enlisted students who already wore bicycle helmets to serve as peer agents to encourage bicycle helmet use on campus. These students encouraged peers to sign a pledge card committing to wear a bicycle helmet and distributed coupons for free helmets and campaign stickers. After a 5-week period, this peer-led intervention increased campus bicycle helmet use rates from 27% to 50%. With this type of research, psychological scientists can directly facilitate norm change in local networks and communities. Future research should continue to investigate how to motivate individuals to see themselves as agents of social change and how to help individuals effectively work to shift norms in their communities.

Behavior change policies can receive high levels of public support

The current culture cycle sends the message that policies that shape the choice environment are intolerable—that they reflect an overbearing nanny state and are best avoided. Yet despite the ubiquity of these sentiments, public resistance to health and behavior change policies is not inevitable. Policies that mandate safer behaviors, or that shape environments to make healthy choices easier to choose, can in fact receive high levels of support in the United States.

In some cases, such policies have been met with little public notice or outcry. For example, the United States's introduction of bans on leaded gasoline and trans fats

did not generate public debate about a nanny state, despite the suggestion by at least one author that a ban on trans fats might represent the “road to food fascism” (Cass, 2013; Resnik, 2010). In other cases, fears about threats to freedom dissipated with time. The introduction of seat belt laws in the 1980s, for example, initially generated heated debate about government overreach: Legislators held up copies of George Orwell's *1984*, invoked “Big Brother,” and warned of “violent” reactions from angry constituents (Oreskes, 1984). Yet today, 49 states require front-seat automobile occupants to wear seat belts; compliance rates are high, and the idea that these laws unduly restrict freedom receives little mention. Likewise, the term *nanny state* was coined in a 1965 op-ed opposing the introduction of highway speed limits (a proposed 70 m.p.h. speed limit was termed “perishing nonsense,” “as unenforceable as it is undesirable”; Macleod, 1965, p. 11), yet highway speed limits today seem to be taken for granted as reasonable and necessary.

Public-health researchers have identified numerous behavior change policies that have the potential to save thousands of lives and substantially improve public health. Yet their adoption may be slowed or avoided completely if policymakers and voters overestimate how unpopular or unpleasant they may be. The historical examples reviewed above show that at least in some cases, concerns about threats to freedom dissipate and public support rises after a policy is adopted. Furthermore, recent research in psychology suggests that increases in support need not depend on lengthy experience or substantial exposure to new information about the policy. Support for policies such as bans on public smoking and plastic water bottles rose measurably even within a few days of the policy's enactment, likely reflecting rationalization of the new status quo (Laurin, 2018; see also Fong et al., 2006). Future research should continue to investigate trajectories of change in support for behavior change policies over time.

Finally, psychological science can play a significant role in understanding how the framing of behavior change policies affects initial public support. Variation in public reactions to “nudge” policies are one example. Examples of nudges include modifying default options so that people must opt out of healthy choices rather than opting in, or placing healthy foods within arms' reach while making unhealthier foods slightly less convenient to choose. Such policies are intended to nudge people toward making healthier choices while preserving the ability to choose otherwise. Proponents of nudges argue—and we agree—that there is no truly neutral choice architecture; *all* environments to some extent shape the ease or difficulty of making a given

choice. Despite this rationale, some research suggested that people perceive nudges as threatening to autonomy and are skeptical about their likely effectiveness (Jung & Mellers, 2016).

However, these perceptions depend on how a nudge policy is presented. For example, when people directly compare nudges, such as automatic enrollment in a retirement savings plan, with more hands-off policies (e.g., simply providing information about the benefits of enrolling in the plan), most people prefer the information campaign because a side-by-side comparison makes behavioral nudges appear more paternalistic (Davidai & Shafir, 2018). However, support for nudge policies increased substantially when they were evaluated separately, on their own merits; support also rose when information about nudges' relative effectiveness was provided (Davidai & Shafir, 2018). Results such as these suggest that perceptions of paternalism and threats to freedom are malleable and that policies that appear unpopular when presented in one context may not be doomed to rejection. Future research on how policy framing shapes perceptions of paternalism can inform policymakers' and advocates' efforts while providing new psychological insights.

Conclusion

The challenge of mitigating ill health in the United States is formidable. Despite the complexity of the problem, mainstream U.S. culture has become myopic about both the sources of and the potential solutions to the country's health crises. The current culture cycle promotes particular narratives about health: "health is your choice and your responsibility" and "the only person's health and wellness you are responsible for is yours." People are encouraged to focus their energies on themselves—through making more responsible lifestyle choices—while external attempts to influence health choices, such as government policies that incentivize healthier behavior, are rejected as threatening to freedom. These narratives, which are rooted in foundational cultural ideas, pervade institutions, interactions, and individual psychological tendencies in a self-perpetuating cycle.

In many cases, the belief that one is free, in control, and responsible can empower people to make healthy choices. Yet we suggest that a culture-wide emphasis on personal choice and personal responsibility is harming Americans' health and well-being. With a multitude of consequential choices can come stress and worry over making the *right* choices, and the belief that ill health reflects a failure to take personal responsibility can encourage misplaced and counterproductive blame and stigmatization of the unhealthy. More broadly,

constant exposure to the message that "health depends on personal choices" obscures the ways in which health also depends on measures that individuals generally cannot affect alone. By magnifying the individual in isolation, mainstream narratives crowd out an understanding of the ways in which individuals and surrounding environments interact to shape health. In so doing, they limit the types of policies that are considered viable by institutions, policymakers, and voters. These phenomena have tangible costs for health.

Shifting this cycle will require action at many levels, but it is possible (Plough, 2015). An important feature of the culture cycle is that individuals can influence the broader culture, and a change at one level can produce changes in others. For example, changes in institutional policies, such as the introduction of a ban on public smoking, go beyond merely changing behavior and can produce changes in attitudes, perceptions of social norms, and support for future regulations (e.g., Seo, Macy, Torabi, & Middlestadt, 2011; Thrasher, Pérez-Hernández, Swayampakala, Arillo-Santillán, & Bottai, 2010; see also Tankard & Paluck, 2017). Yet as we reviewed, dominant narratives about personal freedom and personal responsibility can stall policy changes at both the individual and collective levels.

In our view, psychological science can play a major role in shifting narratives around health that are currently serving as barriers to change. We outlined four specific narratives, supported by psychological research, that could be leveraged to help create a more health-supportive culture cycle. First, health depends on both individual choices *and* physical, social, and cultural environments. Second, health has impacts that extend beyond the individual, and awareness of these impacts can motivate healthier behavior. Third, in addition to focusing on themselves, individuals can take an active role in changing their environments and cultures to support health. Fourth, behavior change policies and nudges can receive high levels of support and strongly benefit public health.

These expanded narratives acknowledge the role of individual choice and personal responsibility without neglecting that these choices are made within—and are inseparable from—a broader sociocultural context. Armed with this understanding, individuals can exercise their power to shape their broader environments and social networks—not just their own personal consumption and lifestyle habits.

If appeals to choice and personal responsibility are making Americans sick, one path forward is to work toward creating more supportive environments that afford responsibility and make healthy choices available and easy to choose. Broadening narratives about health could provide a path toward a more supportive culture

cycle that, rather than focusing on personal choices in isolation, would support healthy behavior at all levels.

Transparency

Action Editor: Laura A. King

Editor: Laura A. King

Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

Funding

This work was supported by National Science Foundation Grant DGE-114747.

ORCID iD

Cayce J. Hook  <https://orcid.org/0000-0002-3418-3701>

References

- Aaron, D. G., & Siegel, M. B. (2017). Sponsorship of national health organizations by two major soda companies. *American Journal of Preventive Medicine, 52*, 20–30.
- Adams, G., & Markus, H. R. (2004). Toward a conception of culture suitable for a social psychology of culture. In M. Schaller & C. S. Crandall (Eds.), *The psychological foundations of culture* (pp. 335–360). Hillsdale, NJ: Erlbaum.
- Adams, J., Mytton, O., White, M., & Monsivais, P. (2016). Why are some population interventions for diet and obesity more equitable and effective than others? The role of individual agency. *PLOS Medicine, 13*(4), Article e1001990. doi:10.1371/journal.pmed.1001990
- Adler, N. E., & Stewart, J. (2009). Reducing obesity: Motivating action while not blaming the victim. *The Milbank Quarterly, 87*, 49–70. doi:10.1111/j.1468-0009.2009.00547.x
- Alaniz, M. L. (1998). Alcohol availability and targeted advertising in racial/ethnic minority communities. *Alcohol Health & Research World, 22*, 286–290.
- Almy, J., & Wootan, M. (2015, August). *Temptation at checkout*. Retrieved from <https://web.archive.org/web/20180830085939/https://cspinet.org/temptation-checkout>
- Americans for Food and Beverage Choice. (2016, August 20). *About us*. Retrieved from <https://web.archive.org/web/20160820032314/www.yourcartyourchoice.com/aba/advocacy/national/content.aspx?page=about>
- Andrew, A. (2007). *Empowering your health: Do you want to get well?* Nashville, TN: Thomas Nelson.
- Araiza, A. M., & Wellman, J. D. (2017). Weight stigma predicts inhibitory control and food selection in response to the salience of weight discrimination. *Appetite, 114*, 382–390. doi:10.1016/j.appet.2017.04.009
- Armey, R. K. (1995). *The freedom revolution: The new republican house majority leader tells why big government failed, why freedom works, and how we will rebuild America*. Washington, DC: Regnery Publishing.
- Balbach, E. D., Smith, E. A., & Malone, R. E. (2006). How the health belief model helps the tobacco industry: Individuals, choice, and “information.” *Tobacco Control, 15*(Suppl. 4), iv37–iv43.
- A ban too far. (2012, May 31). *The New York Times*. Retrieved from <https://www.nytimes.com/2012/06/01/opinion/a-soda-ban-too-far.html>
- Barry, C. L., Brescoll, V. L., Brownell, K. D., & Schlesinger, M. (2009). Obesity metaphors: How beliefs about the causes of obesity affect support for public policy. *The Milbank Quarterly, 87*, 7–47. doi:10.1111/j.1468-0009.2009.00546.x
- Bauer, U. E., Briss, P. A., Goodman, R. A., & Bowman, B. A. (2014). Prevention of chronic disease in the 21st century: Elimination of the leading preventable causes of premature death and disability in the USA. *The Lancet, 384*(9937), 45–52.
- Becker, A. E. (1995). *Body, self, and society: The view from Fiji*. Philadelphia: University of Pennsylvania Press.
- Bedrosian, T. A., & Nelson, R. J. (2013). Influence of the modern light environment on mood. *Molecular Psychiatry, 18*, 751–757.
- Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart: Individualism and commitment in American life*. Berkeley: University of California Press.
- Betsch, C., Böhm, R., Korn, L., & Holtmann, C. (2017). On the benefits of explaining herd immunity in vaccine advocacy. *Nature Human Behaviour, 1*(3), Article 0056. doi:10.1038/s41562-017-0056
- Breast Cancer Action. (2010). *What the heck?* Retrieved from <http://web.archive.org/web/20180810120357/http://thinkbeforeyoupink.org/past-campaigns/buckets-for-the-cure-2/>
- Bresnahan, M. J., Silk, K., & Zhuang, J. (2013). You did this to yourself! Stigma and blame in lung cancer. *Journal of Applied Social Psychology, 43*, E132–E140.
- Brody, J. E. (1990, May 8). Huge study of diet indicts fat and meat. *The New York Times*. Retrieved from <https://www.nytimes.com/1990/05/08/science/huge-study-of-diet-indicts-fat-and-meat.html>
- Brown, P., Zavestoski, S. M., McCormick, S., Mandelbaum, J., & Luebke, T. (2001). Print media coverage of environmental causation of breast cancer. *Sociology of Health & Illness, 23*, 747–775.
- Brownell, K. D., & Horgen, K. B. (2004). *Food fight*. New York, NY: McGraw-Hill Professional.
- Brownell, K. D., Kersh, R., Ludwig, D. S., Post, R. C., Puhl, R. M., Schwartz, M. B., & Willett, W. C. (2010). Personal responsibility and obesity: A constructive approach to a controversial issue. *Health Affairs, 29*, 379–387. doi:10.1377/hlthaff.2009.0739
- Brownell, K. D., & Warner, K. E. (2009). The perils of ignoring history: Big Tobacco played dirty and millions died. How similar is Big Food? *The Milbank Quarterly, 87*, 259–294. doi:10.1111/j.1468-0009.2009.00555.x
- Brownson, R. C., Boehmer, T. K., & Luke, D. A. (2005). Declining rates of physical activity in the United States: What are the contributors? *Annual Review of Public Health, 26*, 421–443. doi:10.1146/annurev.publhealth.26.021304.144437
- Campbell, C. (2017, April 24). Should motorcyclists have to wear helmets? NC House panel votes to loosen rules. *Charlotte Observer*. Retrieved from <https://web.archive.org/web/20190203113614/https://www.char>

- lotteobserver.com/news/politics-government/article146467264.html
- Capewell, S., & Capewell, A. (2018). An effectiveness hierarchy of preventive interventions: Neglected paradigm or self-evident truth? *Journal of Public Health, 40*, 350–358. doi:10.1093/pubmed/idx055
- Carter, A. J. R., & Nguyen, C. N. (2012). A comparison of cancer burden and research spending reveals discrepancies in the distribution of research funding. *BMC Public Health, 12*, Article 526. doi:10.1186/1471-2458-12-526
- Cass, C. (2013, November 9). Trans fat doesn't stir much "nanny state" debate. *USA Today*. Retrieved from <https://web.archive.org/web/20151203105733/http://www.usatoday.com/story/money/business/2013/11/09/trans-fat-doesnt-stir-much-nanny-state-debate/3483759/>
- Center for Consumer Freedom. (2012, June 4). *Super-nanny Bloomberg and elite commentariat meet public resistance*. Retrieved from <http://web.archive.org/web/20161103174738/https://www.consumerfreedom.com/2012/06/super-nanny-bloomberg-and-elite-commentariat-meet-public-resistance/>
- Chaput, J.-P., Klingenberg, L., Astrup, A., & Sjödén, A. M. (2011). Modern sedentary activities promote overconsumption of food in our current obesogenic environment. *Obesity Reviews, 12*(5), e12–e20. doi:10.1111/j.1467-789X.2010.00772.x
- Cheek, N., Schwartz, B., & Shafir, E. (2018). *More choices, more problems: Self-expression, maximizing, and choice overload*. Manuscript in preparation.
- Conner, A. L., Boles, D. Z., Markus, H. R., Eberhardt, J. L., & Crum, A. J. (2019). Americans' health mindsets: Content, cultural patterning, and associations with physical and mental health. *Annals of Behavioral Medicine, 53*, 321–332.
- Davidai, S., & Shafir, E. (2018). Are 'nudges' getting a fair shot? Joint versus separate evaluation. *Behavioural Public Policy, 1*–19. doi:10.1017/bpp.2018.9
- Dean, S. (2014, July 11). *Is wine good for you? Or bad? What does science say?* Retrieved from <https://web.archive.org/web/20140711194122/https://www.bonappetit.com/trends/article/is-wine-good-for-you-a-look-at-scientific-studies-through-the-millennia>
- Diepeveen, S., Ling, T., Suhrcke, M., Roland, M., & Marteau, T. M. (2013). Public acceptability of government intervention to change health-related behaviours: A systematic review and narrative synthesis. *BMC Public Health, 13*(1), Article 756. doi:10.1186/1471-2458-13-756
- DiSalvo, D. (2017, August 31). *The good and bad news about coffee and your health*. Retrieved from <https://web.archive.org/web/20180714103345/https://www.forbes.com/sites/daviddisalvo/2017/08/31/the-good-and-the-bad-news-about-coffee/>
- Donaldson, E. A., Cohen, J. E., Truant, P. L., Rutkow, L., Kanarek, N. F., & Barry, C. L. (2015). News media framing of New York City's sugar-sweetened beverage portion-size cap. *American Journal of Public Health, 105*, 2202–2209. doi:10.2105/AJPH.2015.302673
- Dorfman, L., Cheyne, A., Friedman, L. C., Wadud, A., & Gottlieb, M. (2012). Soda and tobacco industry corporate social responsibility campaigns: How do they compare? *PLOS Medicine, 9*(6), Article e1001241. doi:10.1371/journal.pmed.1001241
- Ebeling, M. (2011). 'Get with the program!': Pharmaceutical marketing, symptom checklists and self-diagnosis. *Social Science & Medicine, 73*, 825–832.
- Eccleston, C. P. (2008). The psychological and physical health effects of stigma: The role of self-threats. *Social & Personality Psychology Compass, 2*, 1345–1361.
- Farley, T. A., Baker, E. T., Futrell, L., & Rice, J. C. (2010). The ubiquity of energy-dense snack foods: A national multicity study. *American Journal of Public Health, 100*, 306–311. doi:10.2105/AJPH.2009.178681
- Farley, T. A., Rice, J., Bodor, J. N., Cohen, D. A., Bluthenthal, R. N., & Rose, D. (2009). Measuring the food environment: Shelf space of fruits, vegetables, and snack foods in stores. *Journal of Urban Health, 86*, 672–682. doi:10.1007/s11524-009-9390-3
- Flanagan, C. A., Elek-Fisk, E., & Galloway, L. S. (2004). Friends don't let friends... or do they? Developmental and gender differences in intervening in friends' ATOD use. *Journal of Drug Education, 34*, 351–371.
- Flanagan, C. A., Stout, M., & Galloway, L. S. (2008). It's my body and none of your business: Developmental changes in adolescents' perceptions of rights concerning health. *Journal of Social Issues, 64*, 815–834.
- Foner, E. (1999). *The story of American freedom*. New York, NY: W.W. Norton.
- Fong, G. T., Hyland, A., Borland, R., Hammond, D., Hastings, G., McNeill, A., . . . Driezen, P. (2006). Reductions in tobacco smoke pollution and increases in support for smoke-free public places following the implementation of comprehensive smoke-free workplace legislation in the Republic of Ireland: Findings from the ITC Ireland/UK Survey. *Tobacco Control, 15*(Suppl. 3), iii51–iii58. doi:10.1136/tc.2005.013649
- Fortenberry, J. D., McFarlane, M., Bleakley, A., Bull, S., Fishbein, M., Grimley, D. M., . . . Stoner, B. P. (2002). Relationships of stigma and shame to gonorrhoea and HIV screening. *American Journal of Public Health, 92*, 378–381. doi:10.2105/AJPH.92.3.378
- French, S. A., Story, M., & Jeffery, R. W. (2001). Environmental influences on eating and physical activity. *Annual Review of Public Health, 22*, 309–335. doi:10.1146/annurev.publhealth.22.1.309
- Frieden, T. R. (2010). A framework for public health action: The health impact pyramid. *American Journal of Public Health, 100*, 590–595. doi:10.2105/AJPH.2009.185652
- Friedman, L. C., Cheyne, A., Givelber, D., Gottlieb, M. A., & Daynard, R. A. (2015). Tobacco industry use of personal responsibility rhetoric in public relations and litigation: Disguising freedom to blame as freedom of choice. *American Journal of Public Health, 105*, 250–260.
- Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., . . . Aycan, Z. (2011). Differences between tight and loose cultures: A 33-nation study. *Science, 332*(6033), 1100–1104.
- Gollust, S. E., & Cappella, J. N. (2014). Understanding public resistance to messages about health disparities. *Journal*

- of *Health Communication*, 19, 493–510. doi:10.1080/10810730.2013.821561
- Gollust, S. E., & Lantz, P. M. (2009). Communicating population health: Print news media coverage of type 2 diabetes. *Social Science & Medicine*, 69, 1091–1098.
- Gollust, S. E., Lantz, P. M., & Ubel, P. A. (2009). The polarizing effect of news media messages about the social determinants of health. *American Journal of Public Health*, 99(12), 2160–2167.
- Gollust, S. E., & Lynch, J. (2011). Who deserves health care? The effects of causal attributions and group cues on public attitudes about responsibility for health care costs. *Journal of Health Politics, Policy and Law*, 36, 1061–1095.
- Grant, A. M., & Hofmann, D. A. (2011). It's not all about me: Motivating hand hygiene among health care professionals by focusing on patients. *Psychological Science*, 22, 1494–1499. doi:10.1177/0956797611419172
- Greger, M., & Stone, G. (2015). *How not to die: Discover the foods scientifically proven to prevent and reverse disease*. New York, NY: Flatiron Books.
- Grynbaum, M. M., & Connelly, M. (2012, August 22). Most New Yorkers oppose Bloomberg's soda ban. *The New York Times*. Retrieved from <http://web.archive.org/web/20180812134537/https://www.nytimes.com/2012/08/23/nyregion/most-new-yorkers-oppose-bloombergs-soda-ban.html>
- Guendelman, M. D., Cheryan, S., & Monin, B. (2011). Fitting in but getting fat: Identity threat and dietary choices among U.S. immigrant groups. *Psychological Science*, 22, 959–967. doi:10.1177/0956797611411585
- Guy, G. P., Zhang, Y., Ekwueme, D. U., Rim, S. H., & Watson, M. (2017). The potential impact of reducing indoor tanning on melanoma prevention and treatment costs in the United States: An economic analysis. *Journal of the American Academy of Dermatology*, 76, 226–233.
- Hackbarth, D. P., Silvestri, B., & Cospers, W. (1995). Tobacco and alcohol billboards in 50 Chicago neighborhoods: Market segmentation to sell dangerous products to the poor. *Journal of Public Health Policy*, 16, 213–230. doi:10.2307/3342593
- Hajat, A., Diez-Roux, A. V., Adar, S. D., Auchincloss, A. H., Lovasi, G. S., O'Neill, M. S., . . . Kaufman, J. D. (2013). Air pollution and individual and neighborhood socioeconomic status: Evidence from the Multi-Ethnic Study of Atherosclerosis (MESA). *Environmental Health Perspectives*, 121, 1325–1333. doi:10.1289/ehp.1206337
- Hamedani, M. G., Markus, H. R., & Fu, A. S. (2013). In the land of the free, interdependent action undermines motivation. *Psychological Science*, 24, 189–196. doi:10.1177/0956797612452864
- Hammer, M. S., Swinburn, T. K., & Neitzel, R. L. (2014). Environmental noise pollution in the United States: Developing an effective public health response. *Environmental Health Perspectives*, 122, 115–119. doi:10.1289/ehp.1307272
- Hartwig, D., & Hartwig, M. (2014). *It starts with food: Discover the Whole30 and change your life in unexpected ways*. Las Vegas, NV: Victory Belt Publishing.
- Hook, C. J., & Markus, H. R. (2019). [Survey of Americans' attitudes towards personal responsibility for health]. Unpublished raw data.
- Hunger, J. M., Major, B., Blodorn, A., & Miller, C. T. (2015). Weighed down by stigma: How weight-based social identity threat contributes to weight gain and poor health. *Social & Personality Psychology Compass*, 9, 255–268. doi:10.1111/spc3.12172
- Idelbrook, C. (2017, May 16). *Trump's OMB director wasn't alone in denigrating diabetes*. Retrieved from <http://web.archive.org/web/20171214182612/http://insulinnation.com:80/living/trumps-omb-director-wasnt-alone-in-denigrating-diabetes/>
- Innes, S. (2016, March 13). *Legislature missed an opportunity to reduce skin cancer, critics say*. Retrieved from http://web.archive.org/web/20180830222118/https://tucson.com/news/legislature-missed-an-opportunity-to-reduce-skin-cancer-critics-say/article_61474865-570b-58f7-a895-991229210d99.html
- Institute of Medicine & National Research Council. (2013). *U.S. health in international perspective: Shorter lives, poorer health*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13497>
- Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, 76, 349–366.
- Jacobson, P. D., Wasserman, J., & Raube, K. (1993). The politics of antismoking legislation. *Journal of Health Politics, Policy and Law*, 18, 789–819.
- Jones, M. M., & Bayer, R. (2007). Paternalism & its discontents: Motorcycle helmet laws, libertarian values, and public health. *American Journal of Public Health*, 97, 208–217.
- Jung, J. Y., & Mellers, B. A. (2016). American attitudes toward nudges. *Judgment and Decision Making*, 11(1), 62–74.
- Kang, Y., Cooper, N., Pandey, P., Scholz, C., O'Donnell, M. B., Lieberman, M. D., . . . Falk, E. B. (2018). Effects of self-transcendence on neural responses to persuasive messages and health behavior change. *Proceedings of the National Academy of Sciences, USA*, 115, 9974–9979. doi:10.1073/pnas.1805573115
- Kata, A. (2010). A postmodern Pandora's box: Anti-vaccination misinformation on the Internet. *Vaccine*, 28, 1709–1716. doi:10.1016/j.vaccine.2009.12.022
- Keyes, K. M., Hatzenbuehler, M. L., McLaughlin, K. A., Link, B., Olfson, M., Grant, B. F., & Hasin, D. (2010). Stigma and treatment for alcohol disorders in the United States. *American Journal of Epidemiology*, 172, 1364–1372. doi:10.1093/aje/kwq304
- Kim, H. S., & Sherman, D. K. (2007). "Express yourself": Culture and the effect of self-expression on choice. *Journal of Personality and Social Psychology*, 92(1), 1–11. doi:10.1037/0022-3514.92.1.1
- Kim, S.-H., & Willis, L. A. (2007). Talking about obesity: News framing of who is responsible for causing and fixing the problem. *Journal of Health Communication*, 12, 359–376.
- King, S. (2006). *Pink Ribbons, Inc: Breast cancer and the politics of philanthropy*. Minneapolis: University of Minnesota Press.

- Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2004). Is there any “free” choice? Self and dissonance in two cultures. *Psychological Science, 15*, 527–533.
- Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology, 74*, 763–773.
- Larson, N. I., Story, M. T., & Nelson, M. C. (2009). Neighborhood environments: Disparities in access to healthy foods in the U.S. *American Journal of Preventive Medicine, 36*(1), 74–81. doi:10.1016/j.amepre.2008.09.025
- Laurin, K. (2018). Inaugurating rationalization: Three field studies find increased rationalization when anticipated realities become current. *Psychological Science, 29*, 483–495. doi:10.1177/0956797617738814
- LaVeist, T. A., & Wallace, J. M. (2000). Health risk and inequitable distribution of liquor stores in African American neighborhood. *Social Science & Medicine, 51*, 613–617. doi:10.1016/S0277-9536(00)00004-6
- Lawrence, R. G. (2004). Framing obesity: The evolution of news discourse on a public health issue. *Harvard International Journal of Press/Politics, 9*(3), 56–75. doi:10.1177/1081180X04266581
- Laws, M. B., Whitman, J., Bowser, D. M., & Krech, L. (2002). Tobacco availability and point of sale marketing in demographically contrasting districts of Massachusetts. *Tobacco Control, 11*(Suppl. 2), ii71–ii73. doi:10.1136/tc.11.suppl_2.ii71
- Lebel, S., & Devins, G. M. (2008). Stigma in cancer patients whose behavior may have contributed to their disease. *Future Oncology, 4*, 717–733. doi:10.2217/14796694.4.5.717
- Lee, A. (1993, November 8). Sit on it. *The New Yorker*, pp. 76–79.
- Leotti, L. A., Iyengar, S. S., & Ochsner, K. N. (2010). Born to choose: The origins and value of the need for control. *Trends in Cognitive Sciences, 14*, 457–463. doi:10.1016/j.tics.2010.08.001
- MacKendrick, N. A. (2010). Media framing of body burdens: Precautionary consumption and the individualization of risk. *Sociological Inquiry, 80*, 126–149.
- Macleod, I. (1965, December 3). 70 m.p.h. *The Spectator*, p. 11.
- Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56*(1), 393–421. doi:10.1146/annurev.psych.56.091103.070137
- Mann, T., Tomiyama, A. J., & Ward, A. (2015). Promoting public health in the context of the “obesity epidemic”: False starts and promising new directions. *Perspectives on Psychological Science, 10*, 706–710. doi:10.1177/1745691615586401
- Markus, H. R., & Conner, A. (2014). *Clash! How to thrive in a multicultural world*. New York, NY: Penguin.
- Markus, H. R., & Hamedani, M. G. (2020). People are culturally-shaped shapers: The psychological science of culture and culture change. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (2nd ed., pp. 11–52). New York, NY: Guilford Press.
- Markus, H. R., & Schwartz, B. (2010). Does choice mean freedom and well-being? *Journal of Consumer Research, 37*, 344–355. doi:10.1086/651242
- Marlow, L. A., Waller, J., & Wardle, J. (2015). Does lung cancer attract greater stigma than other cancer types? *Lung Cancer, 88*, 104–107.
- Martinez, M. E., & Cohen, R. A. (2012). Health insurance coverage: early release of estimates from the National Health Interview Survey, January–June 2012. *National Center for Health Statistics*.
- McCrary, M. A., Harbaugh, A. G., Appeadu, S., & Roberts, S. B. (2019). Fast-food offerings in the United States in 1986, 1991, and 2016 show large increases in food variety, portion size, dietary energy, and selected micronutrients. *Journal of the Academy of Nutrition and Dietetics, 119*, 923–933. doi:10.1016/j.jand.2018.12.004
- McGill, R., Anwar, E., Orton, L., Bromley, H., Lloyd-Williams, F., O'Flaherty, M., . . . Capewell, S. (2015). Are interventions to promote healthy eating equally effective for all? Systematic review of socioeconomic inequalities in impact. *BMC Public Health, 15*, Article 457. doi:10.1186/s12889-015-1781-7
- Mejia, P., Dorfman, L., Cheyne, A., Nixon, L., Friedman, L., Gottlieb, M., & Daynard, R. (2014). The origins of personal responsibility rhetoric in news coverage of the tobacco industry. *American Journal of Public Health, 104*, 1048–1051.
- Mello, S., & Tan, A. S. (2016). Who's responsible? Media framing of pediatric environmental health and mothers' perceptions of accountability. *Journal of Health Communication, 21*, 1217–1226.
- Menashe, C. L. (1998). The power of a frame: An analysis of newspaper coverage of tobacco issues—United States, 1985–1996. *Journal of Health Communication, 3*, 307–325. doi:10.1080/108107398127139
- Mill, J. S. (1903). *On liberty*. London, England: Longmans, Green. (Original work published 1859) Retrieved from <https://archive.org/stream/onliberty00milluoft>
- Miller, P. E., Reedy, J., Kirkpatrick, S. I., & Krebs-Smith, S. M. (2015). The United States food supply is not consistent with dietary guidance: Evidence from an evaluation using the Healthy Eating Index-2010. *Journal of the Academy of Nutrition and Dietetics, 115*, 95–100. doi:10.1016/j.jand.2014.08.030
- Morling, B. (2016). Cultural difference, inside and out. *Social and Personality Psychology Compass, 10*(12), 693–706.
- Motta, M., Callaghan, T., & Sylvester, S. (2018). Knowing less but presuming more: Dunning-Kruger effects and the endorsement of anti-vaccine policy attitudes. *Social Science & Medicine, 211*, 274–281. doi:10.1016/j.socscimed.2018.06.032
- Murray, E., Lo, B., Pollack, L., Donelan, K., & Lee, K. (2003). Direct-to-consumer advertising: Physicians' views of its effects on quality of care and the doctor-patient relationship. *The Journal of the American Board of Family Practice, 16*, 513–524.
- National Institutes of Health. (2008). *The Heart Truth speaker's kit* (NIH Publication No. 08-5208). Retrieved from <https://web.archive.org/web/20180104220713/https://www.nhlbi.nih.gov/health/educational/hearttruth/downloads/html/speakers-kit/speakers.htm>
- National Institutes of Health. (2009). *Portion distortion quiz* (NIH Publication No. 10-7413). Retrieved from <https://>

- web.archive.org/web/20180304221818/https://www.nhlbi.nih.gov/files/docs/public/heart/portion_distortion_quiz_tagged.pdf
- National Institutes of Health. (2016). *The Heart Truth for Latinas: Take action to protect your heart* (NIH Publication No. 15-5065). Retrieved from https://web.archive.org/web/20180123022810/https://www.nhlbi.nih.gov/health/educational/hearttruth/downloads/pdf/2014.07.17_THTforLatinasEnglish_508Factsheet.pdf
- New York State Department of Health. (2016). *Chronic diseases and conditions*. Retrieved from <https://web.archive.org/web/20170701105726/https://www.health.ny.gov/diseases/chronic/>
- Ng, D. M., & Jeffery, R. W. (2003). Relationships between perceived stress and health behaviors in a sample of working adults. *Health Psychology, 22*(6), 638–642.
- Ng, J. Y., Ntoumanis, N., Thøgersen-Ntoumani, C., Deci, E. L., Ryan, R. M., Duda, J. L., & Williams, G. C. (2012). Self-determination theory applied to health contexts: A meta-analysis. *Perspectives on Psychological Science, 7*, 325–340.
- Niederdeppe, J., Kuang, X., Crock, B., & Skelton, A. (2008). Media campaigns to promote smoking cessation among socioeconomically disadvantaged populations: What do we know, what do we need to learn, and what should we do now? *Social Science & Medicine, 67*, 1343–1355. doi:10.1016/j.socscimed.2008.06.037
- Niederdeppe, J., Roh, S., & Shapiro, M. A. (2015). Acknowledging individual responsibility while emphasizing social determinants in narratives to promote obesity-reducing public policy: A randomized experiment. *PLOS ONE, 10*(2), Article e0117565. doi:10.1371/journal.pone.0117565
- Niederdeppe, J., Shapiro, M. A., & Porticella, N. (2011). Attributions of responsibility for obesity: Narrative communication reduces reactive counterarguing among liberals. *Human Communication Research, 37*(3), 295–323. doi:10.1111/j.1468-2958.2011.01409.x
- Nixon, L., Mejia, P., Cheyne, A., Wilking, C., Dorfman, L., & Daynard, R. (2015). “We’re part of the solution”: Evolution of the food and beverage industry’s framing of obesity concerns between 2000 and 2012. *American Journal of Public Health, 105*, 2228–2236. doi:10.2105/AJPH.2015.302819
- O’Connor, A. (2014, September 2). A call for a low-carb diet that embraces fat. *The New York Times*. Retrieved from <https://www.nytimes.com/2014/09/02/health/low-carb-vs-low-fat-diet.html>
- Oliver, J. E., & Lee, T. (2005). Public opinion and the politics of obesity in America. *Journal of Health Politics, Policy and Law, 30*, 923–954. doi:10.1215/03616878-30-5-923
- Oreskes, M. (1984, June 22). New York Assembly passes bill requiring seat belt use. *The New York Times*. Retrieved from <https://www.nytimes.com/1984/06/22/nyregion/new-york-assembly-passes-bill-requiring-seat-belt-use.html>
- Oyserman, D., Fryberg, S. A., & Yoder, N. (2007). Identity-based motivation and health. *Journal of Personality and Social Psychology, 93*, 1011–1027. doi:10.1037/0022-3514.93.6.1011
- Paluck, E. L., Shepherd, H., & Aronow, P. M. (2016). Changing climates of conflict: A social network experiment in 56 schools. *Proceedings of the National Academy of Sciences, USA, 113*, 566–571. doi:10.1073/pnas.1514483113
- Park, A. (2014, May 1). Nearly half of US deaths can be prevented with lifestyle changes. *TIME Magazine*. Retrieved from <https://web.archive.org/web/20180410072510/http://time.com/84514/nearly-half-of-us-deaths-can-be-prevented-with-lifestyle-changes/>
- Pence, M. [VP] (2017, February 22). ObamaCare will be replaced with something that actually works—Bringing freedom and individual responsibility back to American health care [Tweet]. Retrieved from <http://web.archive.org/web/20180830234043/https://twitter.com/vp/status/834493747836682241?lang=en>
- Perkins, J. M., Perkins, H. W., & Craig, D. W. (2010). Misperceptions of peer norms as a risk factor for sugar-sweetened beverage consumption among secondary school students. *Journal of the American Dietetic Association, 110*, 1916–1921. doi:10.1016/j.jada.2010.09.008
- Pew Research Center. (2016, April 19). *Five ways Americans and Europeans are different*. Retrieved from <https://web.archive.org/web/20180830133739/https://www.pewresearch.org/fact-tank/2016/04/19/5-ways-americans-and-europeans-are-different/>
- Plough, A. L. (2015). Building a culture of health: A critical role for public health services and systems research. *American Journal of Public Health, 105*(Suppl 2), S150–S152. doi:10.2105/AJPH.2014.302410
- Powell, L. M., Chaloupka, F. J., & Bao, Y. (2007). The availability of fast-food and full-service restaurants in the United States: Associations with neighborhood characteristics. *American Journal of Preventive Medicine, 33*(4, Suppl.), S240–S245. doi:10.1016/j.amepre.2007.07.005
- Powell, L. M., Slater, S., & Chaloupka, F. J. (2004). The relationship between community physical activity settings and race, ethnicity and socioeconomic status. *Evidence-Based Preventive Medicine, 1*, 135–144.
- Powell, L. M., Szczypka, G., Chaloupka, F. J., & Braunschweig, C. L. (2007). Nutritional content of television food advertisements seen by children and adolescents in the United States. *Pediatrics, 120*, 576–583. doi:10.1542/peds.2006-3595
- Puhl, R. M., Peterson, J. L., & Luedicke, J. (2013). Fighting obesity or obese persons? Public perceptions of obesity-related health messages. *International Journal of Obesity, 37*, 774–782.
- Quinn, D. M., & Crocker, J. (1999). When ideology hurts: Effects of belief in the Protestant ethic and feeling overweight on the psychological well-being of women. *Journal of Personality and Social Psychology, 77*, 402–414.
- Reich, J. A. (2016). *Calling the shots: Why parents reject vaccines*. New York: New York University Press.
- Resnik, D. (2010). Trans fat bans and human freedom. *The American Journal of Bioethics, 10*(3), 27–32. doi:10.1080/15265160903585636
- Robert, S. A., & Booske, B. C. (2011). US opinions on health determinants and social policy as health policy. *American*

- Journal of Public Health*, 101, 1655–1663. doi:10.2105/AJPH.2011.300217
- Roesch, S. C., & Weiner, B. (2001). A meta-analytic review of coping with illness: Do causal attributions matter? *Journal of Psychosomatic Research*, 50, 205–219.
- Rogoff, B. (2016). Culture and participation: A paradigm shift. *Current Opinion in Psychology*, 8, 182–189.
- Rothman, A. J., Gollwitzer, P. M., Grant, A. M., Neal, D. T., Sheeran, P., & Wood, W. (2015). Hale and hearty policies: How psychological science can create and maintain healthy habits. *Perspectives on Psychological Science*, 10, 701–705. doi:10.1177/1745691615598515
- Rozin, P., Fischler, C., Imada, S., Sarubin, A., & Wrzesniewski, A. (1999). Attitudes to food and the role of food in life in the U.S.A., Japan, Flemish Belgium and France: Possible implications for the diet-health debate. *Appetite*, 33, 163–180. doi:10.1006/appe.1999.0244
- Sallis, J. F., Slymen, D. J., Conway, T. L., Frank, L. D., Saelens, B. E., Cain, K., & Chapman, J. E. (2011). Income disparities in perceived neighborhood built and social environment attributes. *Health & Place*, 17, 1274–1283. doi:10.1016/j.healthplace.2011.02.006
- Salsberg, B. (2015, July 28). *Skin doctors urge under-18 ban on tanning beds*. Retrieved from <http://web.archive.org/web/20180830221655/https://www.apnews.com/119a01e4bc284febb4130186ecd1796a>
- Satkoske, V., Horner, C., Polack, E., Kappel, D., & Mattson, M. (2013). Mandating the use of motorcycle helmets: What are the issues? *Bulletin of the American College of Surgeons*, 98(9), 28–33.
- Savani, K., Markus, H. R., & Conner, A. L. (2008). Let your preference be your guide? Preferences and choices are more tightly linked for North Americans than for Indians. *Journal of Personality and Social Psychology*, 95, 861–876.
- Savani, K., Markus, H. R., Naidu, N. V. R., Kumar, S., & Berlia, N. (2010). What counts as a choice? US Americans are more likely than Indians to construe actions as choices. *Psychological Science*, 21, 391–398.
- Schneider, J. E., Reid, R. J., Peterson, N. A., Lowe, J. B., & Hughey, J. (2005). Tobacco outlet density and demographics at the tract level of analysis in Iowa: Implications for environmentally based prevention initiatives. *Prevention Science*, 6, 319–325. doi:10.1007/s11121-005-0016-z
- Schultheis, E. (2017, March 12). Paul Ryan says he “can’t answer” how many will lose coverage under GOP health care plan. *CBS News*. Retrieved from <https://web.archive.org/web/20190818070352/https://www.cbsnews.com/news/paul-ryan-says-he-cant-answer-how-many-will-lose-coverage-under-gop-health-care-plan/>
- Schwartz, B. (2004). *The paradox of choice: Why more is less*. New York, NY: HarperCollins.
- Seo, D.-C., Macy, J. T., Torabi, M. R., & Middlestadt, S. E. (2011). The effect of a smoke-free campus policy on college students’ smoking behaviors and attitudes. *Preventive Medicine*, 53, 347–352. doi:10.1016/j.ypmed.2011.07.015
- Shepherd, M. A., & Gerend, M. A. (2014). The blame game: Cervical cancer, knowledge of its link to human papillomavirus and stigma. *Psychology & Health*, 29, 94–109.
- Shweder, R. A. (2003). *Why do men barbecue? Recipes for cultural psychology*. Cambridge, MA: Harvard University Press.
- Smith, K. C., Cukier, S., & Jernigan, D. H. (2014). Defining strategies for promoting product through ‘drink responsibly’ messages in magazine ads for beer, spirits and alcopops. *Drug and Alcohol Dependence*, 142, 168–173.
- Smith, O. (2012, June 18). Soda noir. *The New Yorker*. Retrieved from <https://www.newyorker.com/magazine/2012/06/18>
- Smith, T. W., Davern, M., Freese, J., & Hout, M. (2018). *General social surveys, 1972–2016* [machine-readable data file]. Retrieved from [gssdataexplorer.norc.org](https://gssdataexplorer.norc.umd.edu/)
- Spence, J. T. (1985). Achievement American style: The rewards and costs of individualism. *American Psychologist*, 40, 1285–1295.
- Snyderman, N. (2009, July 16). Obama on health care policy: ‘No free lunch.’ *NBC News*. Retrieved from <https://web.archive.org/web/20180329021729/http://www.nbcnews.com/id/31929715/ns/health-health-care/t/obama-health-care-policy-no-free-lunch/>
- Spielvogel, L. (2003). *Working out in Japan: Shaping the female body in Tokyo fitness clubs*. Durham, NC: Duke University Press.
- Spritzler, F. (2016, July 12). *Are whole eggs and egg yolks bad for you, or good?* Retrieved <https://web.archive.org/web/20180729083651/https://www.healthline.com/nutrition/are-egg-yolks-bad>
- Steinberg, L. (2015). How to improve the health of American adolescents. *Perspectives on Psychological Science*, 10, 711–715. doi:10.1177/1745691615598510
- Stokols, D. (1992). Establishing and maintaining healthy environments: Toward a social ecology of health promotion. *American Psychologist*, 47(1), 6–22. doi:10.1037/0003-066X.47.1.6
- Storrs, C. (2017, May 25). *Is chocolate good or bad for health?* Retrieved from <https://web.archive.org/web/20180819041553/https://edition.cnn.com/2016/02/10/health/chocolate-health-benefits/index.html>
- Strach, P. (2016). *Hiding politics in plain sight: Cause marketing, corporate influence, and breast cancer policymaking*. Oxford, England: Oxford University Press.
- Sulik, G. A. (2012). *Pink ribbon blues: How breast cancer culture undermines women’s health*. Oxford, England: Oxford University Press.
- Sun, Y., Krakow, M., John, K. K., Liu, M., & Weaver, J. (2016). Framing obesity: How news frames shape attributions and behavioral responses. *Journal of Health Communication*, 21, 139–147. doi:10.1080/10810730.2015.1039676
- Sweeney, E. (2014). The individualization of risk and responsibility in breast cancer prevention education campaigns. *Policy Futures in Education*, 12, 945–960. doi:10.2304/pfie.2014.12.7.945
- Tankard, M. E., & Paluck, E. L. (2017). The effect of a supreme court decision regarding gay marriage on social norms and personal attitudes. *Psychological Science*, 28, 1334–1344. doi:10.1177/0956797617709594
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193–210.

- Thomas, S., Fayter, D., Misso, K., Ogilvie, D., Petticrew, M., Sowden, A., . . . Worthy, G. (2008). Population tobacco control interventions and their effects on social inequalities in smoking: Systematic review. *Tobacco Control, 17*(4), 230–237.
- Thrasher, J. F., Pérez-Hernández, R., Swayampakala, K., Arillo-Santillán, E., & Bottai, M. (2010). Policy support, norms, and secondhand smoke exposure before and after implementation of a comprehensive smoke-free law in Mexico City. *American Journal of Public Health, 100*, 1789–1798. doi:10.2105/AJPH.2009.180950
- Triandis, H. C. (1995). *New directions in social psychology: Individualism & collectivism*. Boulder, CO: Westview Press.
- Tripathi, R., Cervone, D., & Savani, K. (2018). Are the motivational effects of autonomy-supportive conditions universal? Contrasting results among Indians and Americans. *Personality and Social Psychology Bulletin, 44*, 1298–1301. doi:10.1177/0146167218764663.
- Turnwald, B. P., Jurafsky, D., Conner, A., & Crum, A. J. (2017). Reading between the menu lines: Are restaurants' descriptions of "healthy" foods unappealing? *Health Psychology, 36*, 1034–1037. doi:10.1037/hea0000501
- Uhlmann, E. L., & Sanchez-Burks, J. (2014). The implicit legacy of American Protestantism. *Journal of Cross-Cultural Psychology, 45*, 992–1006.
- Umberson, D. (1992). Gender, marital status and the social control of health behavior. *Social Science & Medicine, 34*, 907–917.
- U.S. Department of Health and Human Services. (1991). *Healthy People 2000: National health promotion and disease prevention objectives*. Burlington, MA: Jones & Bartlett Learning.
- Vartanian, L. R., & Porter, A. M. (2016). Weight stigma and eating behavior: A review of the literature. *Appetite, 102*, 3–14. doi:10.1016/j.appet.2016.01.034
- Wang, Y. C., Coxson, P., Shen, Y.-M., Goldman, L., & Bibbins-Domingo, K. (2012). A penny-per-ounce tax on sugar-sweetened beverages would cut health and cost burdens of diabetes. *Health Affairs, 31*, 199–207. doi:10.1377/hlthaff.2011.0410
- Weiner, B. (1995). *Judgments of responsibility: A foundation for a theory of social conduct*. New York, NY: Guilford Press.
- Wendy's. (2006, July). We give your kids more than toys. We give them choices [Advertisement]. *Ebony, 61*(9), 18–19.
- Wittenberg, E., Goldie, S. J., Fischhoff, B., & Graham, J. D. (2003). Rationing decisions and individual responsibility for illness: Are all lives equal? *Medical Decision Making, 23*, 194–211. doi:10.1177/0272989X03023003002
- Yamagishi, T., & Hashimoto, H. (2016). Social niche construction. *Current Opinion in Psychology, 8*, 119–124.
- Yancey, A. K., Cole, B. L., Brown, R., Williams, J. D., Hillier, A., Kline, R. S., . . . McCarthy, W. J. (2009). A cross-sectional prevalence study of ethnically targeted and general audience outdoor obesity-related advertising. *The Milbank Quarterly, 87*, 155–184. doi:10.1111/j.1468-0009.2009.00551.x
- Yoon, P. W., Bastian, B., Anderson, R. N., Collins, J. L., & Jaffe, H. W. (2014). Potentially preventable deaths from the five leading causes of death—United States, 2008–2010. *Morbidity and Mortality Weekly Report, 63*(17), 369–374.
- Yoon, S., & Lam, T.-H. (2013). The illusion of righteousness: Corporate social responsibility practices of the alcohol industry. *BMC Public Health, 13*(1), Article 630. doi:10.1186/1471-2458-13-630