

Nutrition as a Project

Abstract: This conversation is part of a special issue on “Critical Nutrition” in which multiple authors weigh in on various themes related to the origins, character, and consequences of contemporary American nutrition discourses and practices, as well as how nutrition might be known and done differently. In this section authors discuss the aims and effects of nutrition interventions. In terms of aims, various authors emphasize how such interventions act as pedagogies of citizenship, governmentalize people as metric consumers, or reflect colonial practices. In terms of effects, authors discuss how the project

of nutrition works in class/race differentiation, the disempowerment of mothers, or the interest of transnational corporations. All of the authors essentially challenge not only nutrition’s fundamental claims to neutrality and objectivity, but also its claims to benevolence.

Keywords: healthism, moral reform, governmentality, nutrition intervention, colonial practice, gender and nutrition, global nutrition, fortification.

Introduction: Julie Guthman

WRITING IN 1980 THE American sociologist Robert Crawford first used the term “healthism” to describe an emerging health consciousness among middle-class Americans influenced by the the modern environment movement and its concern with toxins, as well as the women’s health movement that rejected the authority of the medical establishment. Healthism, he noted, drew from other already-existing cultural trends toward holistic medicine, self-help, a “new temperance,” and other “life-affirming” ways of being in the world. Eventually, though, as Crawford (2006) tells it, the ideology of healthism, with its expectations of vigilant self-improvement, aided the devolution of health responsibility from the public sphere to individual action and thus made the failure to achieve health a moral problem, deserving of social disapprobation. At the same time, the individualizing of health responsibility also animated projects of social reform. Rather than reinstating health services, however, efforts largely came to turn on empowering those who appeared not to be self-actualized with health knowledge to make them better citizen-subjects as defined through neoliberal notions of personal responsibility (Dean 1999; Petersen and Lupton 1996).

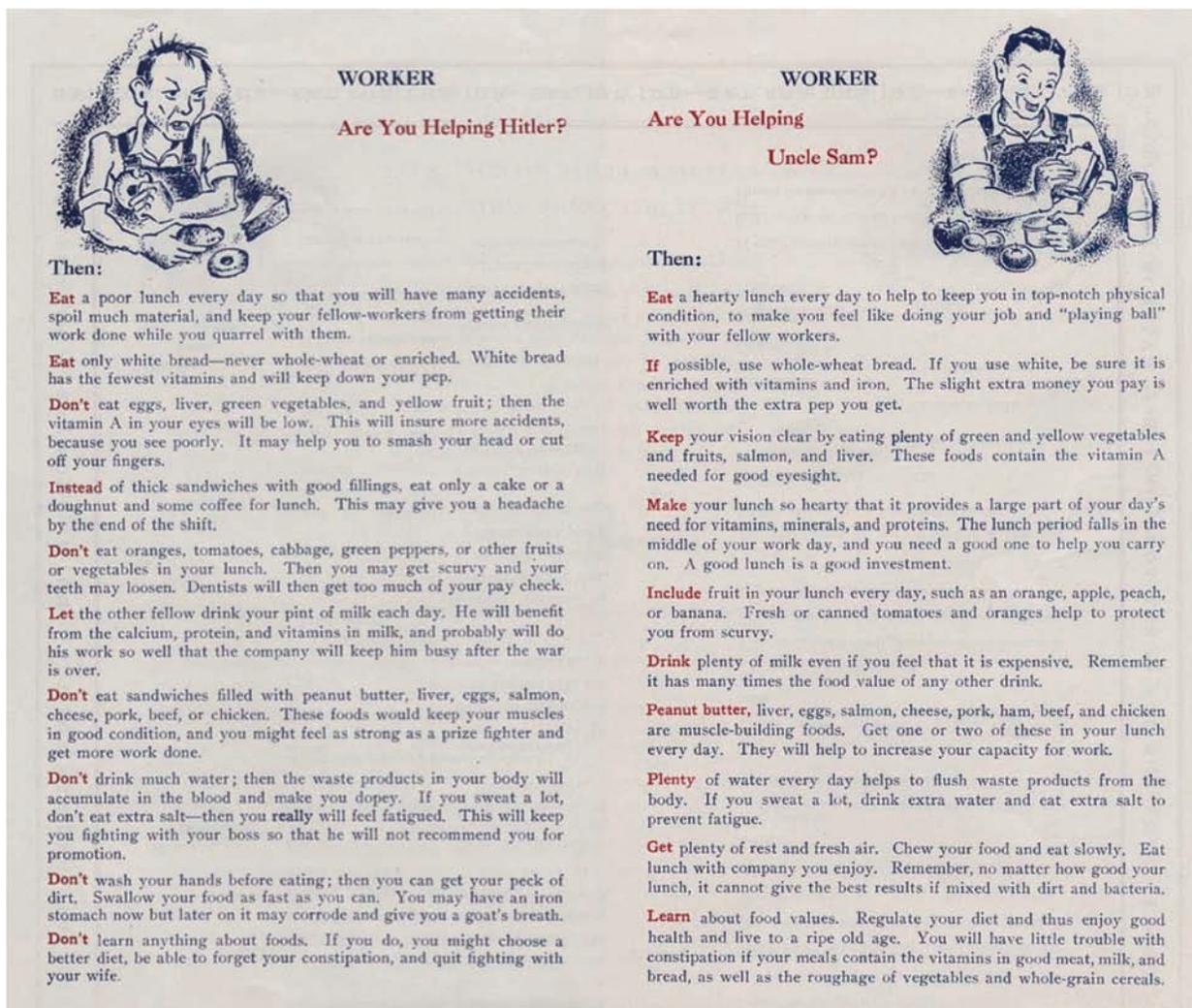
Authors in this section see the project of improving nutrition in the same light as healthism, although as both Charlotte Biltekoff (2013) and Helen Zoe Veit (2013) have argued, nutritional advice has long been cloaked in moral reform, far before the advent of healthism. Still, the missionary quality of so many contemporary interventions in the name of dietary health

suggests similar, if not identical, ends. Yet, many such interventions not only fail to achieve their purposes, food related and otherwise; they have had other, less than salubrious consequences. In this section, the authors reflect on what happens when nutrition goes to work: what kinds of subjects it attempts to make, does make, and how the project of nutrition works in class/race differentiation as well as capital accumulation. Here the authors challenge not only nutrition’s fundamental claims to neutrality and objectivity, but also its claims to benevolence.

Nutrition as a Social Reform Project: Charlotte Biltekoff

Understanding nutrition as a social reform project requires thinking both with the grain, bringing focused attention to the language and practices that comprise “health” and “nutrition,” but also against the grain, seeing and naming the social processes that inform and result from knowledge that asserts itself as purely factual. There are important yet overlooked social and ideological dimensions of how nutrition is put into practice, with effects that are quite different from the ones nutrition claims as its goals and objectives.

In many parts of the world, not least the United States, dietary reformers have provided dietary lessons that function at the same time as a pedagogy of citizenship. As I document in *Eating Right in America* (2013), in the United States, while both the definition of a good diet and the meaning of good citizenship have evolved over the course of the last



century, the relationship between them has remained the same. In the Progressive Era, for example, domestic scientists prepared people to meet the demands of citizenship in the context of a growing federal government by providing dietary lessons that emphasized the importance of ceding individual liberties to the universal laws of nature. During World War II dietary reformers not only addressed the biological need for strong, healthy defense workers, but also the social demands of the home front. The wartime National Nutrition Program functioned much like other home-front propaganda programs, serving the very important social purpose of bolstering a sense of national cohesion, shared purpose, and morale. Good eaters were described as possessing the physical and social qualities that were seen as essential for good wartime citizenship (e.g., courage, willpower, resilience, alertness, morale) while bad eaters were accused of “helping Hitler.”

FIGURE 1: *Dietary Lessons in Good Citizenship on the World War II Home Front.*

IMAGE FROM WAR EMERGENCY BULLETIN 38; CORNELL BULLETIN FOR HOMEMAKERS 524 (1942)

The social effects of nutrition include not only the transmission of ideals of good citizenship in the form of dietary discourse, but also the constitution and maintenance of the identity and character of the American middle class. The equivalence between dietary ideals and social ideals has provided an ideal medium for middle-class self-making since the simultaneous emergence of the modern science of nutrition and the American middle class in the late nineteenth and early twentieth centuries (Veit 2013). As Robert Crawford has argued (1994), by the end of the nineteenth century, health became a key marker of middle-class morality. The concept of health played an important social role in terms of distinguishing members of the responsible middle class from those

in the lower classes who were presumed to have failed to realize the goal of health. The identity of the middle class was thus achieved in contrast to the qualities associated with the “unhealthy other,” that is, those persons whom Crawford describes as “*already* positioned as subordinate, outside, and stigmatized” (1994: 1348). Nutrition was one of many strategies the emerging middle class used to construct its unique identity and character, distinguish itself from those lower down in the social hierarchy, and defend its unstable boundaries.

As I argue elsewhere (Biltekoff 2013) late nineteenth- and early twentieth-century American nutrition researchers and dietary reformers participated in the class-making process, helping to create a unique identity for the fledgling middle class and secure its fragile social boundaries. In the 1890s domestic scientists, female social reformers armed with nutrition facts recently produced by the “father of American nutrition” Wilbur O. Atwater, contributed to the construction of an identity-affirming contrast between the middle class and “unhealthy others.” When the public kitchens that they had hoped would improve the eating habits, morals, and character of poor people and immigrants in New England’s urban centers failed, the reformers characterized immigrants and the poor as “incorrigible,” unreachable, and unwilling to change their food habits for the betterment of society (Abel 1899). In contrast, they affixed the notion of responsible health-seeking to the fledgling middle class by characterizing members of that class as flexible, adaptable, and more willing to apply the facts of nutrition to improving their diets. Domestic scientists then went on to provide dietary advice that naturalized class by conflating its social and environmental components with the biological aspects of nutrition. They constructed and disseminated elaborate rules for eating right that were carefully attuned to all of the constituent aspects of class. First and foremost domestic scientists taught that the relationship between diet and income was of critical importance; a diet was good only if it accurately and honestly reflected the financial situation of the family eating it. In response to the fact that income was becoming an increasingly unreliable class marker, however, they also stressed the importance of choosing foods in proper relation to occupation (emphasizing the difference between manual labor and non-manual labor, or “brain work”) and respecting the habituated preferences of the eater. Finally, domestic scientists provided explicit instructions for guarding against the blurring of dietary class distinctions in places such as hospitals where classes mingled and boundaries might be threatened (Richards 1901).

Despite the fact that dietary advice is no longer overtly oriented around the constituent aspects of class (income, occupation, habituated preferences), its class-making function

continues today, as does its role in conveying lessons in good citizenship. Today, however, the moral hierarchy of class and character that is produced through the work of dietary reformers plays a greater, and more dangerous, social role than it has in the past.

Since World War II, the social role played by American nutrition has grown, in terms of both scope and effects, alongside changes in the meaning and practices of health and nutrition. After WWII the American medical community and nutrition researchers shifted their focus from contagious disease to chronic diseases such as diabetes and cardiovascular disease (Nestle 2002). In relation to this transition, by the 1970s three important cultural shifts had taken place that, together, dramatically expanded the role of nutrition and the moral valence of “eating right.” First, health was redefined around lifestyle and behavior and reconceptualized as largely within personal control. Second, the range of behaviors that were considered health-related expanded such that health became increasingly important to how Americans defined themselves, structured their daily lives, and articulated moral values (Crawford 2006). Third, diet came to be considered a primary determinant of health (Nestle 2002). In other words, eating habits moved to the center of health discourse at the very moment that health itself became a social and cultural obsession associated with intense moral relevance.

The intensification of concern has certainly emboldened the “missionary approach” to “good eating” in food activism that Jessica Hayes-Conroy describes below (also Guthman 2008b). Today’s campaign against obesity, for example, sustains the relationship between dietary and social ideals by encouraging qualities and characteristics such as self-control and responsible consumption that underpin a neoliberal social order (Guthman 2011; LeBesco 2011). But eating right carries a greater social freight now than it has in previous eras because of the very real sociocultural risks that currently attend being a “bad eater.” Americans’ increasing investment in health as a measure of morality and responsibility has come hand in glove with significant disinvestment in actual healthcare provision; people who appear to fail to abide by these norms are subject not only to scorn but to disenfranchisement (Crawford 2006; Guthman 2011). The disproportionate prevalence of obesity among already disenfranchised racial and economic groups only sharpens nutrition’s social effects, as fears of “bad eaters” coincide with and exacerbate existing prejudices. Meanwhile, advocates of the alternative food movement such as Michael Pollan and chef Alice Waters define a good diet around the intentional investment of both more time spent cooking and more money spent on food than it would take to eat “industrially,” and emphasize

a distinction between moral eaters who do the right thing for both themselves and the planet and irresponsible “others” whose bad eating habits are a threat to all of us (Pollan 2006, 2008; Waters 2003). These approaches reinforce the very same moralized social hierarchy that earlier domestic scientists constructed, but in a context in which being a bad eater is more socially dangerous than it has been in the past.

Conveying social ideals and constructing a moralized class hierarchy that has punitive effects for “bad eaters” may not be the intent of nutrition reformers, but these social effects cannot be ignored. The historical relationship between dietary ideals, social ideals, and the American middle class, together with the intensification of nutrition’s social effects since the 1970s, explains why, for example, as Jessica Mudry writes below, nutrition cannot be made culturally appropriate simply by translating advice into different languages and culinary systems. Likewise, with these social effects in view it is clear that nutritional inequalities cannot be addressed simply by improving access to those foods that have already been defined by reformers as “good.” Addressing nutritional inequalities by focusing on improving access to “good food” overlooks the cultural politics of how “good food” is defined (Guthman 2008a). Barriers to dietary health are not just economic and spatial, in terms of the high costs and the unequal geographic access to healthy foods; they are also social and cultural and they are, in many respects, exacerbated by the practice of nutrition itself.

Making Metric Subjects: Jessica Mudry

In her account of how dietary concerns have moved to the center of American civic projects of health, Charlotte argues that underpinning the rules of healthy eating are qualitative and moral judgments about one’s self and others. My interest in the social “project” of nutrition is in the policies and technologies that aim to facilitate the amelioration of the self, through quantitative management. The USDA’s food guides and the US Food and Drug Administration’s recently revamped Nutrition Facts labels are examples of technologies that encourage the public to understand diet as a way in which their eating habits are part of social and political programs. These programs encourage eaters to understand themselves as technicians servicing their bodies with calories and nutrients. Policies like these, which place the burden of responsibility of being healthy on the individual through dietary self-regulation, reflect how pervasive the framework of governmentality is as a mechanism of regulation and control (Foucault 1991; Turner 1992).

Such a deanimated approach to eating has both a political and scientific history that is closely linked to American medical education and US public policies of science. From the 1800s until the early 1900s medical schools began to formalize and standardize medical curricula, and in the process doctors gained a measure of professional sovereignty and ethos. Medical school curricula and textbooks established norms, treatment protocols for aberrant behaviors, and guidelines for clinical settings (Starr 1982; Ludmerer 1999; Sarfatti Larson 1977). At the same time that universities were formalizing education in medicine and human nutrition, American government agencies became more reliant on agricultural chemistry to increase food production through chemical fertilizers and soil analyses (Cohen 2011; Rossiter 1975). The combination of the scientization of food production and the professionalization of medicine created a framework within which the management of health became inextricably linked with the management of the diet, and that management occurred through medical surveillance and scientific oversight (Mudry 2009). Since then, efforts to establish ordered and measurable qualities to eating patterns and to revalue food as intrinsic to health have effectively brought about the professionalization and industrialization of food, nutrition, and dietetics. Government agencies enlist agricultural scientists, policy experts, doctors, and other specialists with formal technical expertise further “rendering technical” (Li 2007) the project of nutrition.

Still, a major challenge for the project of nutrition is getting people to shift their eating habits from desires driven by immediate personal gain (i.e., “I am eating this ice cream because it is delicious”) to desires driven by a perceived contribution to a larger social, medical, or even moral project (i.e., “I am eating fewer calories to maintain my target weight” or “I am being good today by having a kale salad for lunch”). For agencies like the Center for Science in the Public Interest, for example, the solution lies in policies and governmental structures designed to pattern human behaviors. Labeling laws that require restaurants to publish calorie counts on their menus make a meal an artifact of a larger technological system. Conspicuously pointing out scientific data with the hopes of changing people’s behavior aims to “fix” public health problems through coercive policy (Weinberg 1966; Hughes 1989). However, reducing a concept like “healthy diet” to a series of achievable steps through food choices turns health into an oversimplified checklist.

The most obvious instantiation of such a technological fix is the federally published food guide (Dietary Guidelines for Americans). A person who reads the food guide can be interpolated through standardized engagement: personal details

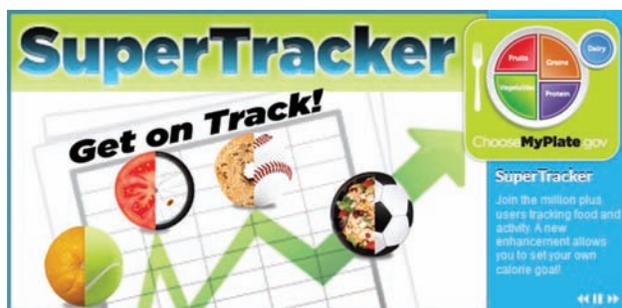


FIGURE 2: *Government policies encouraging you to monitor (and moralize) your meals.*

IMAGE COURTESY OF THE U.S. DEPARTMENT OF AGRICULTURE

like age, weight, and activity levels will all point to that reader's ideal intake for calories, vitamins, minerals, and nutrients. The aim of the food guide is to provide a tool and a discursive technique that will turn eaters into metric subjects—those who view food through measurements of constituent ingredients.

Increasingly, technological tools allow governmental agencies such as the USDA or trained professionals such as dietitians to examine the behaviors of eaters, and aggregate groups like “post-menopausal women” or “teenage boys” as though they were deanimated objects. The federal government is continuously trying to innovate the food guide and ways with which the public will engage with the nutritional data the guide provides, while limiting the ways in which individuals can make idiosyncratic identifications. For instance, the USDA's Supertracker “personalized nutrition and physical activity plan” (USDA 2014) encourages users to measure and monitor everything they eat, record all of their activities, and track their weight online. Once the computer algorithm has access to these variables, it can create a “personalized” set of target intakes for food groups, daily calorie limits, and even a journal in which to chronicle all of these activities. “Personalization” comes in the form of a specific point on a matrix that is constructed and bound by sets of data about food and the body, not through any criteria that incorporate personality, location, or tastes.

Another aim of technologies like the Supertracker program, as well as food and exercise apps that are available on mobile devices, and even food diaries that use quantities and metrics, is to force personal accountability. Documenting eating habits puts the eater in the position of understanding their health as a scientific project, and of having to explain deviant data points as bad behavior. On Supertracker, for example, a birthday party celebration that involves cake and ice cream (and, presumably, fun) elicits a red triangle with an exclamation point and a warning about “empty calories.”

As such, government projects of nutrition and, more generally, health ask that the metric subject be a numerate police who engages in self-surveillance to keep his or her behavior in line with a quantified ideal. At the policy level, a federal food guide or a food intake tracker points out deficiencies in the subject. Remedying those deficiencies requires a commitment to the scientific project of quantitative management of the diet. A metric subject weighs, measures, and compares, immersing him- or herself in the nutrition data that surrounds them, working toward the ideal data set that defines “health.” The quantitative program of knowing what and how to eat, with the promise of health as the end goal, presents governmental policies as benevolent, well-meaning, and unobjectionable. However, such governmentality turns nutrition into an administrative goal, with no point of realization for the subject who may constantly try to find health in food, through conflicting, confusing, or changing numbers.

Nutrition as Colonial Practice: Jessica Hayes-Conroy

As both Charlotte and Jessica have argued in the above discussion, maintaining health through eating “right” is an individual obligation, but is also tied to responsible citizenship (Biltekoff 2013). That is, the ideal eater follows federal nutrition advice because it is understood to be the “right” thing to do, and because it is a practice that therefore confirms the eater as a rational, responsible citizen. Nutritional health is thus a project of the self, but one where the relative goodness of individual behaviors is standardized, decontextualized, and predetermined (apolitically) in the name of science. This approach to nutrition in turn encourages the development of intervention initiatives that are focused on changing individual behaviors which are assumed to be deviant, either because the individual lacks integrity as a citizen, or because a lack of knowledge and/or access limits the individual's ability to do the “right” thing. Through these assumptions, nutrition becomes a sort of colonial practice, whereby those “in the know” (Guthman 2008b) seek to teach others how to conform to appropriate forms of citizenship. Because appropriateness is seemingly determined by objective science, what counts as (in)appropriate is never actually in question.

In my critique, I want to be careful to first highlight that when I examine nutrition-as-colonial-practice, what I am referring to is neither (only) nutrition science nor nutrition practice at large. It is important to distinguish nutrition at its broadest—the practice of nourishing bodies, in all their biosocial complexity—from the forms of what I would call

“hegemonic nutrition” (Hayes-Conroy and Hayes-Conroy 2013), which rely on three central assumptions: (1) that the food-body relationship can be standardized (as in through the standard of the calorie); (2) that nourishment can be reduced to macro- and micro-nutrients (as in Scrinis 2008) or “charismatic nutrients” (as in Kimura 2013); and (3) that nourishment is universally equivalent and thus can be decontextualized from the political-economic, socio-spatial, and cultural locations in which it takes place (an insistence that hides the very stories many commentators here seek to uncover). These assumptions can surely be found within mainstream nutrition science, but they also extend well beyond science itself, into everyday understandings of “healthy eating,” and even into the seemingly progressive initiatives of alternative food activism in the United States. Nevertheless, the embeddedness of these assumptions still permits, however (un)consciously, the maintenance of a strong commitment to the neutrality of scientific “objectivity” and thus the ability to think about the foundational tenets of hegemonic nutrition in purely apolitical terms.

This problem is not unique to nutrition. Indeed, there are many examples of how faith in scientific objectivity has come to mask white, Western (masculinist, capitalist-driven, Christian, etc.) knowledge production as value-(and color-)free (Haraway 1988; Smith 1999). What is striking is how often hegemonic nutrition has repeated these mistakes, with patronizing if not pernicious results. The “missionary” (Guthman 2008b) approach to good eating abounds in food activism, as in nutrition intervention. Those who take up this missionary approach first identify “the other” by way of target populations—most often disenfranchised peoples: the poor, racial/ethnic minorities, single mothers, etc.—and then seek to “educate” such populations on the importance and how-to’s of eating well. I have seen this, for example, in local cooking classes that seek to reduce obesity in working-class communities through culinary education, or in student service-learning projects that assume education will curb dietary disease among populations most “at risk.” I also see it in the way that Alice Waters (along with many other food activist leaders) laments the supposedly widespread lack of thought that goes into the “dehumanizing” and “uncivilized” ways that many people—the masses—feed themselves (Waters Online n.d.). And, I have also heard these sentiments in the explanations given to me for why school gardens are important, or for why public schools need nutrition education (Hayes-Conroy forthcoming). In all of these examples, the interveners assume that a lack of knowledge and/or motivation is the main problem, rather than, for example, examining how cultural differences, structural inequalities, and material relationships might produce

much more varied and contradictory mechanisms of bodily nourishment. Again, the definition of “eating well” in such interventions is assumed to be stable and unproblematic even though, as Charlotte Biltekoff (2013) discusses, this definition has always been imbued with an ethical imperative—one that has specific (though shifting) cultural origins, usually white, Western, and upper class. The parallels between this and other missionary projects—for example, the settlement houses and “field matron programs” of the late 1800s in the United States that sought to assimilate immigrant and native women into “correct” forms of Victorian domesticity (Domosh and Seager 2001)—are remarkable.

One important example of this missionary approach is the recent trend toward “culturally appropriate” dietary advice. Cultural appropriateness in nutrition and health intervention has become a new buzzword (Kreuter et al. 2003; James 2004), and at first glance would appear to be a step in the right direction. After all, what impact could attention to cultural difference have other than to encourage inclusivity and diversity? Nevertheless, I argue that cultural difference in nutrition intervention often works to tokenize and co-opt diversity in ways that outwardly appear to celebrate difference, while in reality perpetuating hegemonic nutrition as a colonial project. I argue this not because the attention to cultural difference, in many cases, is not sincere or accurate, but rather because the attention comes only after-the-fact—that is, after the facts of nutrition science have already been stabilized and depoliticized. Thus, a dietitian may acknowledge that eating healthfully threatens to destabilize cultural practice, but never that cultural practice threatens to destabilize the facts of healthy eating (James 2004). Indeed, a deeper examination of cultural appropriateness in practice reveals that attention to cultural difference in nutrition has not significantly shaken the bedrock of scientific legitimacy upon which hegemonic nutrition is founded. The USDA’s food pyramids, for example, have now been culinarily translated to appeal to a variety of (seemingly homogenous) cultural traditions—including Native American, Latino, and Japanese (see the USDA website for examples). Bracketing the fact that each of these cultures is neither static nor uniform, the more troubling concern is that the underlying nutrition advice itself remains unquestioned. Indeed, these pyramids tell us little about the nutritional wisdom to be gained from diverse cultural traditions. Instead, “culture” is employed as a translational tool in an effort to promote Western dietary guidelines, while other health knowledges remain silent. Rice is swapped for bread, papaya for oranges, and dancing for running, but the scientific knowledge that structures the pyramid itself remains intact. Far from democratic or

MiPlato en casa

Queridos padres,

Nuestra clase comenzará una unidad llamada **Yo preparo MiPlato**. Su hijo(a) estudiará cómo seleccionar comida saludable y ser activo físicamente, mientras desarrolla destrezas en matemáticas, ciencia, artes lingüísticas e inglés. Nuestra escuela espera que estas lecciones apoyen sus esfuerzos en casa para ayudar a que su hijo(a) desarrolle hábitos alimenticios saludables.

Este folleto es un producto del Equipo Nutrición del Departamento de Agricultura de los Estados Unidos, y ofrece varios consejos fáciles y divertidos para preparar comidas más nutritivas para la familia que incluyan los cinco grupos de alimentos. Manténgase al tanto del trabajo en clase que se enviará al hogar y mostrará lo que estemos aprendiendo en la escuela sobre cómo seleccionar alimentos saludables. Esto será una gran oportunidad para dialogar con su hijo(a) sobre nutrición, probar nuevos alimentos juntos y alentar a su hijo(a) a preparar comidas y meriendas más saludables.

¡Buen provecho!



Esta semana, mi familia:

- Comerá un vegetal verde oscuro, rojo o anaranjado durante la cena.
- Escogerá un cereal de granos integrales para el desayuno.
- Tomará leche sin grasa o baja en grasa (1%) durante las comidas.
- Comerá frijoles o guisantes durante la cena por lo menos una vez.
- Tomará agua en vez de refrescos u otras bebidas endulzadas.
- Se deleitará de comer frutas de postre.



Entre otras cosas, podrá encontrar recetas en el sitio de Internet del Equipo Nutrición: <http://teammnutrition.usda.gov>.



FIGURE 3: Spanish translation of US government "My Plate" nutrition information.

IMAGE COURTESY OF THE U.S. DEPARTMENT OF AGRICULTURE

de-centering, this trend is eerily similar to the linguistic translation of the Bible so as to spread Christianity (read: morality) in the colonies, while maintaining the sanctity of Christianity itself.

To summarize, then, the issue at stake seems to be one regarding nutrition as a (bio)political project, where citizenship and “goodness” is determined by correct bodily behavior. Thus, we need to ask, who benefits and who loses when the definition of a nourished body becomes limited to certain individualized health behaviors? And, what happens when differently nourished bodies are read as deviant? More importantly, how does the standardization and depoliticization of nutrition preclude us from understanding and practicing bodily health in ways that are more attentive to the complex realities of material life?

Targeting Mothers for Nutrition Interventions: Aya H. Kimura

The hegemonic nutrition that Jessica Hayes-Conroy discusses above has not only targeted nonwhites and the working class as populations that do not know “right” eating and are in need of correction and supervision. Another group that has been the target of nutrition intervention is women. From American First Lady Michelle Obama’s Let’s Move campaign (Levin and Browner 2005) to the Japanese government’s promotion of “food education” (Kimura 2011), public health nutrition tends to target mothers as the objects of intervention. Such singling out of mothers as the gatekeepers for the nutrition of children, families, and nations has long historic roots in the cultural codification of care work as the job of women. There is also a cultural understanding of mothering that increasingly demands that mothers rely on up-to-date scientific knowledge in order to cook for their families (Ladd-Taylor 2004; Litt 2000). Transforming the notion of domesticity, this ideology of scientific motherhood has compelled women to turn to nutritional science to interpret what good food and good mothering should be (Apple 2006).

The focus on mothers as gatekeepers for nutrition could result in the celebration of mothers’ roles in nutrition programs. Indeed, in the United States efforts to improve food situations have historically attracted many women as active players, giving them social recognition and opportunities to enter the public domain. The history of the discipline of nutrition science itself reflects this gendered pressure. Many women were able to pursue careers and research, while at the same time the discipline suffered from stigma and discrimination as a women’s field (Apple 2010).

While nutritional policies can celebrate the notion that mothers hold the key to child nutrition, such commendation of women’s roles in improving food has often been coupled with the condemnation of women for not fulfilling their nutritional, familial, and nationalistic responsibilities. “Unattractive” and “ill-cooked” meals made by women have been criticized as the source of social ills ranging from labor upheavals (Levenstein 1993) to alcoholism (Shapiro 2008). Even in the contemporary era, subtle mother-blaming is hard to miss in the discourse of the obesity epidemic, especially in the United States. Women’s employment outside the home has been linked to an increase in fast food and eating out, and the take-away message of the Let’s Move campaign of Michelle Obama is that “mothers have the ability and the responsibility to end the childhood obesity crisis in the United States” (Firth 2013: 45). This kind of discourse tends to hold mothers responsible for the nation’s nutritional wellness without giving them resources to provide better food, such as flexible work hours, reductions in the gender wage gap, and changes to a welfare system that has pushed many women to low-wage jobs.

Most troubling from the feminist perspective is the recent focus on fetal environment as the determinant of later health. As the nutritional gaze shifts to earlier stages in human development in order to determine and examine the effects of nutrition on health, the intrauterine environment has become an increasingly popular space for scientific investigation and biomedical intervention (Mansfield 2012). This attention to pregnancy as the key nutritional stage needs to be situated in a broader discourse of fetal centrism drawn from efforts in the American antiabortion movement to assert fetal personhood. The mother-child dyad is imagined and naturalized in scientific and policy discourses, but it tends to be asymmetrical—that is, the mantra of fetal protection tends to consider women’s role solely in relation to the fetus, justifying surveillance of maternal conduct and intrusion into women’s bodies. This *asymmetrical mother-child dyad* invites and normalizes policing of women, holding them responsible for the welfare of the fetus and its later development (Kimura 2013).

Comment on Gender and Food: Jessica Hayes-Conroy

One important point to clarify in this discussion of the gendered aspects of nutrition is that “gendered,” of course, does not only mean “pertaining to women,” in the same way that “raced” does not only mean “pertaining to people of color.”

Importantly, masculinity and whiteness (for example) are also made visible in calls to examine the ways that nutrition is both gendered and raced. This is not to say that the category of women (though problematic) is not still an important category for analysis. Certainly the rates of eating disorders among college-age women, for example, can tell us something about what is at stake when societal obsessions with healthy eating and dieting become conflated. And to be sure, my own experiences in American nutrition education programs certainly illustrated to me the extent to which girls, especially, read such initiatives as programs to help them “not get fat” (Hayes-Conroy forthcoming). From these and other examples, we can appreciate that there are important reasons to ask questions about the impact of nutrition intervention on women particularly. But further investigations also signal important differences in what is at stake both between and beyond women—for example, in how disordered eating differs across racial identity and sexual orientation (Thompson 1994), and in how healthy eating and dieting threatens heterosexual masculinity (Gough 2007).

Moreover, scholarship that seeks to further *queer* gender (Butler 2004; Halberstam 2005; Ahmed 2006; Puar 2007) can help illuminate how ideas about nutrition and dietary health produce and delimit the very same gendered categories through which understandings of nutritional difference are articulated. Indeed, the project of queering food can illuminate how certain nutritional beliefs and practices, including responsibility for familial/maternal health, also conform to heterosexual and cisgender (people whose gender identity aligns with the gender they were assigned at birth) ideologies, in addition to race and class-based norms (Ehrhardt 2006). Integrating queer and trans theory with critical nutrition studies demonstrates that identity categories within health intervention are both fraught and fluid, and that the most important work is in fact taking place at the edges, where borders are straddled and boundaries deconstructed as a means of survival. As poet and scholar Gloria Anzaldúa (1996) reminds us, “to survive the Borderlands you must live *sin fronteras*, be a crossroads.” In regard to nutrition, this means taking contradictions seriously, as a matter of existence, and looking beyond pure definitions of the self, be they couched in nutritional shoulds or tokenized forms of social difference. More specifically, it means being attentive to how those “pure” or “tokenized” categories are taken up by capitalism and sold back to eaters in the form of unique yet purchasable consumer labels that always limit the bounds of belonging, forcing some people into the category of deviant other, and even into a state of nonexistence or impossibility (Spade 2011). It is therefore imperative to inquire about the

ways in which nutritional proclamations both develop and constrain opportunities for transgressing oppressive regimes, be they gendered, raced, classed, sexualized, or otherwise engaged in the production of constraining forms of difference.

Global Nutrition, the Market, and the State: Aya H. Kimura

Because many of the comments thus far are largely informed by experiences in the United States, it is important to recognize that nutrition’s missionary and colonial bent is quite explicit with nutritional inventions in the global South. Several years ago, *New York Times* columnist Nicholas Kristof wrote an article titled “The Hidden Hunger” (Kristof 2009). He argued for the importance of paying attention to hidden hunger, or micronutrient deficiencies, and said, “one of the great Western misconceptions is that severe malnutrition is simply about not getting enough to eat. Often it’s about not getting the right micronutrients—iron, zinc, vitamin A, iodine—and one of the most cost-effective ways outsiders can combat poverty is to fight this ‘hidden hunger.’”

A short video clip that accompanied Kristof’s article is indicative of how nutrition ideas are put to work in the global South. The clip shows Kristof on a trip in West Africa. The clip starts with Kristof and his entourage surrounded by aid workers and doctors walking through the local clinic. A stick-thin baby and his worried mother are shown, but the narrator of the clip then goes on to say that there is hidden hunger as well, which might be less visible but no less threatening. The situation is grave, but, the narrator points out, the problem is solvable with a quick and cheap fix—fortified food. Kristof chimes in at this point: “Listen, I know that micronutrients are not flashy but it is one of the most cost-effective ways to improve the health of children and mothers in the developing world.” And he extols the achievement of some companies in fortifying their wheat flour. Missing from Kristof’s narrative is how malnutrition and hunger are related to larger structural issues. Rising food prices are mentioned but not explored in terms of their fundamental causes, such as speculative markets for grains, the hike in oil prices, or the global boom in biofuel crop production. The clip similarly fails to make a link to poverty, lack of basic services like clean water, or social conflicts (the malnourished baby and the mother featured in the clip are in Sierra Leone, which suffered from a protracted civil war), but rather presents hidden hunger as simply a matter of missing nutrients.

From Kristof to the Gates Foundation, many actors in international development are championing hidden hunger

or micronutrient deficiencies as the key to combating world malnutrition. Since the 1990s, ideas of hidden hunger have also been incorporated into United Nations Millennium Development Goals and World Food Summits. The ways in which hidden hunger came to take center stage and how nutrition intervention is practiced are suggestive of a broader pattern of nutrition-based intervention in the food systems of the global South. As I mentioned in *Interrogating Moral and Quantification Discourses in Nutritional Knowledge*, many of these interventions reduce the food problem to missing charismatic nutrients. Here I want to emphasize how this approach lends itself to fortification, a way of addressing the food problem that is technical and can be accomplished through the market.

In the Kristof clip, the interlocutors are all white men; Kristof only talks to Western aid workers and doctors. Mothers of sick children, who might be able to tell the stories of what they want for themselves and for their children, remain in the background, except when one provides a brief answer to the question by a white man about how she fed the baby. Silencing of the mother while visually highlighting her as the icon of food insecurity in this clip is reflective of a larger colonial dynamic that permeates nutritional interventions in international development. Supposed beneficiaries of nutrition interventions are rarely invited to discuss their experiences and actually work with nutrition experts and development practitioners. Indeed, hidden hunger nutrition interventions often deliberately try to bypass engagement with the supposed beneficiaries. This is evident from the popularity of fortification as a strategy to address hidden hunger. A common rationale for fortification is that it is an effective and inexpensive means to add micronutrients to diet. But this rationale obfuscates its political utility: fortification enables experts to increase micronutrients without significantly altering people's thoughts and behavior. Unlike nutrition education or home gardening, where the poor must be educated about the need for more nutrients and change their diets, fortification gives greater control to experts. Experts simply have to work with food manufacturers to increase the amount of charismatic nutrients in the food system without even talking with the supposed beneficiaries (Kimura 2013).

What is ironic is that within international nutrition the global poor are discursively highlighted. The Business Alliance for Food Fortification, an international group organized by the World Bank and major multinational food manufacturers, for instance, mentioned that “at least two billion people” and an “estimated 800 million children who suffer from malnutrition are at risk of severe physical and cognitive debilitation” in their call for promoting “food fortification as an

important and necessary element of global and local efforts to improve the health and well-being of the world populations at risk of vitamin and mineral deficiencies” (World Bank Institute 2006: 4). Like the visual strategy of displaying the hungry African baby and the mother in the Kristof video, the West's rescue narrative needs the global poor in dystopia (Belasco 2006). Yet in contrast to the rhetorical visibility of the global poor, actual input from the poor in how to conduct nutrition improvement tends to be minimal or nonexistent.

In concluding this section, I would like to make another point about nutrition as a project. Lurking behind this notion of nutrition as a project of social engineering is the question of a project by whom. Is it simply by nutrition scientists? In light of Jessica Hayes-Conroy's notion of “hegemonic nutrition,” who is doing “the missionary approach”? When we discuss nutrition as a project, the tendency is to obfuscate the subject of the project. The history of nutrition science tends to be told in a passive tense, as a project of governmentality (see Jessica Mudry above), without discussing who really drives the content and practice of nutrition science. By doing so, important players — such as the market and the state — are removed from the picture.

Yet the scientific discipline of nutrition science and its credentialed experts are not the only shapers of nutrition advice and interventions. In the capitalist economy, science often engages in a delicate dance with the market. If nutrition advice and interventions produce anxious citizens, private corporations can easily turn them into anxious consumers of their products and services (Scrinis 2013). For instance, “vitamania” in the United States, according to historian Rima Apple, owes no insignificant debt to aggressive advertising and marketing by the industry (Apple 1996).

The commodification of nutrition is not limited to the developed countries. For example, government fortification efforts to tackle hidden hunger in the developing world increasingly take private sector partners. An important caveat here is that the story of commodification of nutrition science needs to be understood as more than a case of contamination of science by capitalist logic. The business calculation of corporations is one factor but nutrition experts also have their own. For scientists, partnership with the market is much easier than partnership with regular citizens. From the perspective of many nutrition experts, food manufacturers are more reliable partners than the intended beneficiaries of the nutrition interventions. There are many fewer of them to deal with (given the issue of quality control, fortification projects tend to favor products whose manufacture is concentrated among a few producers), they tend to be much more educated, and they are comfortable with the kind of development-speak that



FIGURE 4: *Golden rice.*

PHOTOGRAPH BY THE INTERNATIONAL RICE RESEARCH INSTITUTE, CREATIVE COMMONS 2.0

many development and nutrition experts are accustomed to. In addition, corporate partners themselves are expert in manufacturing logistics and marketing. The celebrated “public-private partnership” offers benefits to both sides (Dixon, Sindall, and Banwell 2004; Miraftab 2004).

Another problem with the understanding of hegemonic nutrition informed solely by the American experience is that it often fails to explicitly problematize the role of the state. Studying how nutrition interventions are practiced in the global South, however, provides a useful lesson in understanding how nation-states have understood nutrition as an integral part of nation-building and national development. For instance, the cases that I examined in Indonesia showed how hidden hunger projects were promoted and legitimized in the name of building a healthy Indonesia, to lessen the national burden of diseases and stunted intellectual and physical growth, and to increase the competitiveness of the Indonesian workforce in the global economy (Kimura 2013). In addition, it is not only national governments that pursue nutrition as a national development project. International development agencies provide funding and know-how on improving nutrition in the developing countries, driven by particular, yet often naturalized ideas about how to “develop” the underdeveloped countries. For instance, Golden Rice has been promoted as an anti-malnutrition measure but also within a framework of promoting biotechnology in the developing countries (Kimura 2013; Brooks 2005).

The tendency for scientific experts and the government to collaborate with the private sector has grown immensely under neoliberalization. Public-private partnership is increasingly the preferred mode of social reform (Dixon, Sindall, and Banwell 2004), as evident in the World Bank’s championing of the Business Alliance for Food Fortification, which

includes major transnational food companies such as Nestlé and Danone. As a result, neoliberalism pushes different institutions to work together, often privileging the language and logic of the market. Nonetheless, it would be misleading to simply merge motivations of scientific experts with those of the state or the market. The ways in which different institutions put nutritionism into practice and how they sanction those who are considered deviant are shaped by varying institutional histories and logics. It is the convergence and interaction of different motivations and calculations by science, market, and the state that produces nutrition as a particular kind of project. ©

REFERENCES

- Abel, Mary Hinman. 1899. “Public Kitchens in Relation to Workingmen and the Average Housewife.” In *The Rumford Kitchen Leaflets: Plain Words about Food*, ed. Ellen Richards. Boston: Rockwell and Churchill.
- Ahmed, Sara. 2006. *Queer Phenomenology: Orientations, Objects, Others*. Durham, NC: Duke University Press.
- Anzaldúa, Gloria. 2009. “To live in the Borderlands means you.” In *American Identities: An Introductory Textbook*, ed. Lois P. Rudnick, Judith E. Smith, and Rachel Lee Rubin, 316. Oxford: Blackwell.
- Apple, Rima D. 1996. *Vitamina: Vitamins in American Culture*. New Brunswick, NJ: Rutgers University Press.
- . 2006. *Perfect Motherhood: Science and Childrearing in America*. New Brunswick, NJ: Rutgers University Press.
- . 2010. “How Gender Shaped Science and Education: A History of Nutritional Sciences in the 19th and 20th Centuries.” *Frontiers of Education in China* 5(2): 177–85.
- Belasco, Warren. 2006. *Meals to Come: A History of the Future of Food*. Berkeley: University of California Press.
- Biltekoff, Charlotte. 2013. *Eating Right in America: The Cultural Politics of Food and Health*. Durham, NC: Duke University Press.
- Brooks, S. 2005. “Biotechnology and the Politics of Truth: From the Green Revolution to an Evergreen Revolution.” *Sociologia Ruralis* 45(4): 360–79.
- Butler, Judith. 2004. *Undoing Gender*. New York: Routledge.
- Cohen, Benjamin R. 2011. *Notes from the Ground. Science, Soil and Society in the American Countryside*. New Haven: Yale University Press.
- Crawford, Robert. 1980. “Healthism and the Medicalization of Everyday Life.” *International Journal of Health Services* 10(3): 365–68.
- . 1994. “The Boundaries of the Self and the Unhealthy Other: Reflections on Health, Culture and AIDS.” *Social Science & Medicine* 38(10): 1347–65.
- . 2006. “Health as a Meaningful Social Practice.” *Health* 10(4): 401–20.
- Dean, Mitchell. 1999. *Governmentality: Power and Rule in Modern Society*. Thousand Oaks, CA: Sage.
- Dixon, Jane, Colin Sindall, and Cathy Banwell. 2004. “Exploring the Intersectoral Partnerships Guiding Australia’s Dietary Advice.” *Health Promotion International* 19(1): 5–13.
- Domosh, Mona, and Joni K. Seager. 2001. *Putting Women in Place: Feminist Geographers Make Sense of the World*. New York: Guilford Press.
- Ehrhardt, Julia C. 2006. “Towards Queering Food Studies: Foodways, Heteronormativity, and Hungry Women in Chicana Lesbian Writing.” *Food & Foodways* 14(2): 91–109.

- Firth, Jeanne. 2013. "Healthy Choices and Heavy Burdens: Race, Citizenship and Gender in the 'Obesity Epidemic.'" *Journal of International Women's Studies* 13(2): 33–50.
- Foucault, Michel. 1991. "Governmentality." In *The Foucault Effect: Studies in Governmentality*, ed. G. Burchell, C. Gordon, and P. Miller, 87–104. Chicago: University of Chicago Press.
- Gough, Brendan. 2007. "'Real men don't diet': An Analysis of Contemporary Newspaper Representations of Men, Food and Health." *Social Science & Medicine* 64(2): 326–37.
- Guthman, Julie. 2008a. "Bringing Good Food to Others: Investigating the Subjects of Alternative Food Practice." *Cultural Geographies* 15(4): 431–47.
- . 2008b. "'If they only knew': Colorblindness and Universalism in California Alternative Food Institutions." *Professional Geographer* 60(3): 387–97.
- . 2011. *Weighing In: Obesity, Food Justice, and the Limits of Capitalism*. Berkeley: University of California Press.
- Halberstam, Judith. 2005. *In a Queer Time and Place: Transgender Bodies, Subcultural Lives*. New York: NYU Press.
- Haraway, Donna. 1998. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14(3): 575–99.
- Hayes-Conroy, Jessica, and Allison Hayes-Conroy, eds. 2013. *Doing Nutrition Differently: Critical Approaches to Diet and Dietary Intervention*. Staffordshire, UK: Ashgate.
- Hayes-Conroy, Jessica. Forthcoming. *Savoring Alternative Food: School Gardens, Healthy Eating, and Visceral Difference*. Oxford: Routledge.
- Hughes, Thomas. 1989. "The Evolution of Large Technological Systems." In *The Social Construction of Technological Systems*, ed. Weibe Bijker, Thomas Hughes, and Trevor Pinch, 51–82. Cambridge, MA: MIT Press.
- James, Delores. 2004. "Factors Influencing Food Choices, Dietary Intake, and Nutrition-related Attitudes among African Americans: Application of a Culturally Sensitive Model." *Ethnicity and Health* 9(4): 349–67.
- Kimura, Aya H. 2011. "Food Education as Food Literacy: Privatized and Gendered Food Knowledge in Contemporary Japan." *Agriculture and Human Values* 28(4): 465–82.
- . 2013. *Hidden Hunger: Gender and the Politics of Smarter Foods*. Ithaca, NY: Cornell University Press.
- Kreuter, Matthew W., Susan N. Lukwago, Dawn C. Bucholtz, Eddie M. Clark, and Vetta Sanders-Thompson. 2003. "Achieving Cultural Appropriateness in Health Promotion Programs: Targeted and Tailored Approaches." *Health Education & Behavior* 30(2): 133–46.
- Kristof, Nicholas. 2009. "The Hidden Hunger." *New York Times*, May 23. www.nytimes.com/2009/05/24/opinion/24kristof.html?_r=0.
- Ladd-Taylor, Molly. 2004. "Mother Worship/Mother Blame: Politics and Welfare in an Uncertain Age." *Journal of the Motherhood Initiative for Research and Community Involvement* 6(1): 7–15.
- LeBesco, Kathleen. 2011. "Neoliberalism, Public Health, and the Moral Perils of Fatness." *Critical Public Health* 21(2): 153–64.
- Levenstein, Harvey. 1993. *Paradox of Plenty: A Social History of Eating in Modern America*. London and New York: Oxford University Press.
- Levin, Betty Wolder, and C. H. Browner. 2005. "The Social Production of Health: Critical Contributions from Evolutionary, Biological, and Cultural Anthropology." *Social Science & Medicine* 61(4): 745–50.
- Li, Tania Murray. (2007). *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham, NC: Duke University Press.
- Litt, Jacquelyn. 2000. *Medicalized Motherhood*. New Brunswick, NJ: Rutgers University Press.
- Ludmerer, Kenneth. 1999. *Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care*. New York: Oxford University Press.
- Mansfield, Becky. 2012. "Gendered Biopolitics of Public Health: Regulation and Discipline in Seafood Consumption Advisories." *Environment and Planning D: Society and Space* 30(4): 588–602.
- McCay, Clive et al. 1942. "Eat Well to Work Well: The Lunch Box Should Carry A Hearty Meal," in *War Emergency Bulletin* 38; *Cornell Bulletin for Homemakers* 524.
- Miraftab, Faranak. 2004. "Public-Private Partnerships the Trojan Horse of Neoliberal Development?" *Journal of Planning Education and Research* 24(1): 89–101.
- Mudry, Jessica. 2009. *Measured Meals: Nutrition in America*. Albany: SUNY Press.
- Nestle, Marion. 2002. *Food Politics: how the Food Industry Influences Nutrition and Health*. Berkeley: University of California Press.
- Petersen, Alan, and Deborah Lupton. 1996. *The New Public Health: Health and Self in the Age of Risk*. Thousand Oaks, CA: Sage.
- Pollan, Michael. 2006. *The Omnivore's Dilemma: A Natural History of Four Meals*. New York: Penguin.
- . 2008. *In Defense of Food: An Eater's Manifesto*. New York: Penguin.
- Puar, Jasbir K. 2007. *Terrorist Assemblages: Homonationalism in Queer Times*. Durham, NC: Duke University Press.
- Richards, Ellen Henrietta. 1901. *The Cost of Food: A Study in Diets*. New York: J. Wiley.
- Rossiter, Margaret. 1975. *The Emergence of Agricultural Science: Justus Liebig and the Americans, 1840–1880*. New Haven, CT: Yale University Press.
- Sarfatti Larson, Magali. 1977. *The Rise of Professionalism: A Sociological Analysis*. Berkeley: University of California Press.
- Serinis, Gyorgy. 2008. "On the Ideology of Nutritionism." *Gastronomica* 8(1): 39–48.
- . 2013. *Nutritionism: The Science and Politics of Dietary Advice*. New York: Columbia University Press.
- Shapiro, Laura. 2008. *Perfection Salad: Women and Cooking at the Turn of the Century*. Berkeley: University of California Press.
- Smith, Linda Tuhiwai. 1999. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books.
- Spade, Dean. 2001. *Normal Life: Administrative Violence, Critical Trans Politics, and the Limits of Law*. Cambridge, MA: South End Press.
- Starr, Paul. 1982. *The Social Transformation of American Medicine*. New York: Basic Books.
- Thompson, Becky W. 1994. *A Hunger So Wide and So Deep: American Women Speak Out on Eating Problems*. Minneapolis: University of Minnesota Press.
- Turner, Bryan S. 1992. *Regulating Bodies: Essays in Medical Sociology*. New York: Routledge.
- United States Department of Agriculture. 2014. "Supertracker." www.supertracker.usda.gov/default.aspx.
- Veit, Helen Zoe. 2013. *Modern Food, Moral Food: Self-Control, Science, and the Rise of Modern American Eating in the Twentieth Century*. Chapel Hill: University of North Carolina Press.
- Waters, Alice. n.d. "A Delicious Revolution." *Center for Ecoliteracy*. www.ecoliteracy.org/essays/delicious-revolution.
- . 2003. "Slow Food, Slow Schools: Teaching Sustainability through the Education of the Senses." Paper read at Program in Agrarian Studies at Yale University, New Haven, CT.
- Weinberg, Alvin. 1966. "Can Technology Replace Social Engineering?" *University of Chicago Magazine* 59: 6–10.
- World Bank Institute. 2006. "Public-Private Partnership Launched to Improve Nutrition in Developing Countries." Geneva. http://siteresources.worldbank.org/CGCSRLP/Resources/baff_report.pdf.