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EXPANDING FOOD AGENCY
EXPLORING THE THEORY AND ITS SCALE IN PHILADELPHIA, PA

A Thesis Presented

by

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Abstract

Our contemporary American food system has created complex environments for decisions and actions around food, and those decisions have implications for culture, health, natural resources, social relations, and the economy. And yet, as scholars, we do not understand the particulars of how people actually cook for themselves and their families. This study explores how race and socioeconomic class interact with individual experience of “food agency,” or personal capacity to plan and prepare meals within one’s food environment. It is one stage in a multiphase project developing a comprehensive theory of food agency, applicable in any context; a scale for measuring that agency; and a cooking pedagogy for increasing it.

This research was based on an explanatory sequential mixed methods design: a qualitative follow-up to quantitative research (see Creswell & Plano Clark, 2011). It is an in-depth qualitative investigation with low-income participants of color, a population that had previously not been included in the development of food agency theory. The study’s population was a mix of Drexel University students and community residents of Mantua, in Philadelphia, PA, and was recruited from Drexel’s Healthy Cooking Techniques summer course. Data collection included semi-structured interviews and survey administration, and also utilized food agency scale survey responses. Analysis and results are divided into two papers, one narrative, and one a comparison between quantitative components of the food agency scale and corresponding qualitative data.

Narrative analysis reinforces the notion that food agency is incredibly complex and self-referential. People with high self-efficacy around food may feel like they have a high level of agency, even if they can identify ways that societal structures impede them. Mixed-methods analysis reveals aspects of food agency that are not reflected by the scale: specifically, strategies for procuring food; environmental and financial impediments to that procurement; and aspiration for greater self-sufficiency and healthfulness in preparing food.

Participants are intentional and skillful in resisting economic and environmental obstacles to feeding themselves. They want to be supported in building skills for that daily endeavor. The food agency scale does not gauge many of the strategies with which they resist obstacles, and therefore might be better cast as a cooking action scale, rather than a measure of comprehensive food agency.

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CHAPTER ONE

INTRODUCTION

People feed themselves every day. In the United States, our contemporary food system has created complex environments for decisions and actions around food, and those decisions have implications for culture, health, natural resources, social relations, and the economy. We are constantly learning more about the food system, seen from academia – the University of Vermont’s (UVM) Food Systems program being just one example – to popular media – for example, see *The Atlantic Monthly’s* review of global food systems books (Nestle, 2011) or Food Tank’s “13 Books on the Food System That Could Save the Environment” (Antrim-Cashin, 2013). And yet we do not know much about what happens in the home, in the most intimate part of this system: we do not understand the particulars of how people actually cook for themselves and their families (Trubek, et al. 2015 working draft; Sutton, 2014). To better understand the forces that affect an individual’s food preparation and consumption, a research collaborative, including professors and graduate students from UVM and Drexel University, is developing a theory of “food agency,” which reflects an individual’s experience within the larger food system¹. Our working definition of food agency is being “*empowered to act* throughout the course of planning and preparing meals within a particular food environment.”

¹ This research is being supported by a Hatch Grant from the United States Department of

Key components to food agency are: food preparation skill; access to resources, such as time and money; cooking self-efficacy; and intentional involvement in food decisions. Our research team is developing a food agency scale, now in preliminary testing, to gauge these key components for a numerical measure of food agency. The team is also developing a food agency pedagogy, an experiential cooking curriculum to build food preparation skills and self-efficacy, which is confidence in one's capacity to control personal motivations, behaviors, and their social environment (Bandura, 1982). Through these two projects, we hope to develop a unified theory of individual capacity for procuring and preparing food, with implications for consumption.

The study outlined in this paper is one piece of the theory development. Broadly, it aims to explore the idea of food agency with a low-income population of color, a group of people not included in initial food agency research. It is also a group that, given societal inequalities in health and food access, potentially faces disproportionate barriers to food agency. The paper is organized as follows: a literature review on issues of food, agency, race, and socioeconomic status, to provide a foundation for research design and analysis; details on research methods and design; a narrative article on the lived food agency experiences of research participants; a mixed-methods article that compares quantitative components of the food agency scale with qualitative data collected from participants, and inquires into the relationship between agency, race, and socioeconomic status; and a discussion and conclusion that expands on what can

be learned about food agency from this study as a whole. The literature review, methods, and conclusion sections all serve *both* the narrative and mixed-method articles.

The food agency theory has potential to illuminate ways people could be empowered to take greater control of their daily food choices and actions.

American food patterns result from a web of social, cultural, economic, environmental, political, and personal influences. As Yudkin (1956) summarized decades ago: "...food behavior is a multifaceted process that involves multiple, interrelated decisions...a decision about what to eat is often linked to a decision about where to get the food and how to prepare it. A decision about acquiring food may be linked to decisions about where to store the food and how to serve it" (p.538). The complexity of the food system makes it difficult to identify specific reasons for food choices. The food agency scale should provide perspective about the specific categories of limitations individuals face. For example, what is keeping people from feeding themselves as they want to? Do different groups of people experience different barriers to food agency? We hope that, among other things, the scale will illuminate the areas where agency could be increased.

One possible area is in knowledge and skill-building, which the food agency pedagogy is designed to support. As Bandura (1991) writes, regarding the relationship between skill and agency, "skill is not a fixed property that one does or does not have within one's behavioral repertoire. Rather, skill involves a

generative capability in which cognitive, social, and behavioral skills must be organized and effectively orchestrated to serve a host of purposes.” The pedagogy targets the cognitive and social skills around food, as well as the behavioral skills within the kitchen, with the aim of increasing that generative capability that relies upon all three.

So far, the food agency pedagogy has been developed predominantly in an academic environment, with participation narrowly defined by white, female college students, most of whom study in the department of Nutrition and Food Science. While the food agency scale, which is still in development, has been tested on a broader range of subjects (through online postings), the initial concepts behind the scale were based on experiences teaching the same cohort of students described above. The scale and pedagogy must prove effective for a diverse array of people, if they are to be generalizable across populations.

I believe it is especially important that any theory of agency reflect the needs and realities of low-income Americans and people of color. The definition of “low income” depends on family size; in 2011, the poverty line for a family of four with two children was \$45,622, and included approximately one third of working families in the United States (Population Report Bureau, n.d.). These families experience higher rates of diet-related illnesses and have less access to healthy foods (Johns Hopkins Center for a Livable Future, 2010). Inner-city locations that lost white residents to the suburbs in the 1960s and 1970s lost supermarkets with them, a barrier to procuring food that persists today. For low-

income communities and communities of color, accessing fresh quality food requires traveling long distances or paying inflated prices (The Food Trust, 2013). Because most research shows the need for increased access to quality, healthy foods (The Food Trust, 2013), there is a real question as to how much personal agency one can exert against such large socio-economic and political forces. This study explores the extent to which, and the manner in which, a group of low-income Philadelphians of color manage their food lives within those larger systems. It is an investigation of systemic aspects of inequality in the food system, through the lens of food agency.

CHAPTER TWO

LITERATURE REVIEW

Why Worry: Health, Nutrition, Cooking, and Social Justice

...while price is paramount, low-income people are neither unthinking dupes of the corporate food system motivated only by appetite, nor overly rational calculators driven only by price, but inhabitants of marginalized yet complex social worlds in which they must actively navigate a variety of barriers to obtain the foods they prefer. (Alkon et al., 2013, p. 132)

The last 50 years have seen major changes in how Americans eat and in their relative health. Food consumed outside the home increased from 18 percent to 32 percent of total daily calories between 1977 and 1996 (Guthrie, Lin, & Frazao, 2002). On the other side of that equation, time spent cooking at home has dropped precipitously in the last century: in the 1920s, women spent an average of three hours on kitchen work daily (Bryant, 1996, p. 363); in 1968, an average of two hours (p. 370); in the late 1990s, 50 minutes (Zick & Stevens, 2010); and in 2015, 37 minutes for women and 21 minutes for men (“American Time Use Survey,” n.d.). This decline is problematic because, based on comparative nutrient assessments, quality of “away food” is nutritionally inferior to home-cooked food. Not only is away food usually higher in calories, but it is also higher in fat and sodium and lower in calcium and other vitamins (Guthrie et al., 2002). By 2000, the average American intake had risen by 550 calories per day, compared with the 1960s (Johns Hopkins Center for a Livable Future, 2010). In 2003, 67 percent of Americans were overweight or obese, compared with 47 percent in 1976 (Johns Hopkins Center for a Livable Future, 2010).

These rates are even more startling when broken down demographically. In 2003, 30 percent of white adults were obese, compared with 37 percent of Mexican Americans adults and 45 percent of Black adults (Ogden CL et al., 2006). Socioeconomic status (SES) is negatively correlated with obesity, although the relationship changes depending on race, education, and gender; but broadly, across demographics, poorer people are more likely to be obese (Zhang & Wang, 2004). As of 2008, 42 percent of low-income women (in this case, below 350 percent of the poverty line) were obese, compared with 29 percent of women living above that income threshold (Ogden, Lamb, Carrol, & Flegal, 2010). Some social determinants of health relate to money, such as availability of resources to access food, safe housing, and health care; some of them are less directly driven by income, such as social support, exposure to crime, and residential segregation (Cole & Fielding, 2007). Childhood obesity rates are also higher for disadvantaged and minority children, and the reasons for that are at least partially environmental, with higher exposure to television and thus to food advertising, prevalence of fast food restaurants nearby, and lack of safe spaces for physical activity (Grier & Kumanyika, 2006).

There are indicators revealing that home cooking might bestow great benefits related to diet and health: chronic disease prevention; smaller portion sizes; lower consumption of salt, sugar, fat, and calories; greater consumption of fiber, calcium, iron, folate, and vitamins; and increased consumption of fruits and vegetables (Soliah, Walter, & Jones, 2012). Cooking skills have been

positively correlated with weekly vegetable consumption, and negatively correlated with weekly “convenience food” consumption – even when controlling for the health consciousness of subjects (Hartmann, Dohle, & Siegrist, 2013).

But this supposedly linear, causal connection drawn by nutritional science – from cooking to nutrition to health – is not as straightforward as it appears. Although time spent cooking and energy consumed from home food sources decreased for *all* socioeconomic groups between the mid-1960s and the mid-2000s, low-income Americans had the largest decrease in cooking, spending 35 percent less time in the kitchen daily (Smith, Ng, & Popkin, 2013). And yet, two-thirds of calories are still consumed at home. Time-use surveys show that low-income Americans cook much more than their wealthier counterparts (Trubek et al., 2015), but still suffer disproportionate health disparities from systematic, avoidable differences that include socioeconomic status (Braveman et al., 2011, p. S150). That obesity is much more correlated to income among white populations than among non-white populations in the United States (p. 190) is further evidence of more complex causation than simple income to health.

Although the causes of health disparities are still not fully understood, public discussions of food and health may inadvertently demonize people for lack of health. As Julie Guthman admonishes in her article, “Can’t Stomach It: How Michael Pollan et al. Made Me Want to Eat Cheetos,” popular food commentators write about obesity in hysterical terms, and turn, “our gaze,

perhaps inadvertently, from ethically suspect farm policy to the fat body” (p. 4). A Google Image search for “American poor people eating” (August 23, 2016) results in a variety of photos, including, on the first page, multiple pictures of MacDonald’s restaurants and of fat individuals eating potato chips and French fries. The generalization extends beyond United States borders: in 2013, public health minister of the United Kingdom, Anna Soubry, said that poor people can be visually identified from their overweight appearance (Ross 2013). Various outlets are battling this stereotype, from advocacy groups (Food Secure Canada, in their 2016 article ‘Poor People Can’t Cook,’ and Other Myths, takes on the idea that poor individuals are less food literate) to newspapers (The Denver Post August 29, 2013 addresses the racial component in “Food and racial stereotypes”) to policy institutions (“A new CDC study further debunks the misconception that low-income Americans are the biggest consumers” of fast food, reported *The Atlantic* in September, 2015). The volume and breadth of this pushback suggests that activists and scholars alike see the stereotype as serious and prevalent. This matters not only on a personal, but on a national scale, as racial and other stereotyping ultimately gets in the way of public support for effective policies for minimizing the effects of poverty, or results in misguided and ineffective policies (Moses 2012).

Applying the notion of agency to food recognizes that how people feed themselves cannot be reduced to simple willpower. Many factors affect whether or not people eat healthy diets, including: lack of knowledge and skills,

particularly in organization, planning, and shopping; gaps in nutrition knowledge; higher availability of unhealthy foods, compared with healthy ones; insufficient time and money; and cultural identities (such as masculinity) at odds with nutritional recommendations (Bisogni, Jastran, Seligson, & Thompson, 2012). Investigations into cooking based on income must therefore also take into consideration the race of participants, and recognize the complex and not fully explicated relationship between these identifiers and physical health. In order to truly nourish, cooking needs to be understood in cultural and social terms, not solely from the vantage point of nutrition. For fulfillment, people need access to their own highly valued foods (Martine Stead et al., 2004).

People of low socioeconomic status and people of color are, theoretically, the most likely to face structural barriers to food agency. From ethnographic observations on working class and poor mothers, Bowen *et al.* (2014) found that unpredictable and consuming work schedules—combined with uncertain transportation, economic barriers to fresh and healthy food, and family disinterest in new or healthy foods—make it very difficult for parents to cook at home. “There is an overwhelming body of evidence over 20 years that accessing affordable, high-quality, and healthy food is a challenge for many families, and is most pronounced in low-income neighborhoods of color” (The Food Trust, 2013, p. 9).

There may be more, unknown factors at work to disadvantage people’s health. As Bandura (2001) writes in regards to agency (the theory of which is

outlined below), “poverty, indexed as low socioeconomic status, is not a matter of multilayered or distal causation. Lacking the money to provide for the subsistence of one’s family impinges pervasively on everyday life in a very proximal way” (p. 15). Agency theory has already been linked to health promotion; self-efficacy, or one’s belief in one’s ability to accomplish a particular task, allows one to exercise some control over health functioning (Bandura, 2004). Exercising agency through intentionality (Bandura, 2001) can be seen as a way of resisting social structures that do not support individual choice. It is critical that these experiences are included in the measurement and conceptualization of food agency, so that further research accurately reflects the realities of inequality, and could seek to shrink those inequalities.

Conceptual Framework: The Developing Theory of Food Agency

Personal food systems include the development of food choice values; negotiation and balancing of food choice values; classification of foods and situations; and development of strategies, scripts, and routines for recurring food decisions...Research with U.S. adults reveals that salient food choice values typically relate to taste, convenience, cost, health, and managing relationships, with additional values important to particular groups or individuals (e.g., ethics, environment, religion) (Sobal & Bisogni, 2009, p. S42).

To address the problems facing our contemporary food system requires a way of understanding how people actually feed themselves. To that end, our research team has been working for two years on developing a comprehensive theory of food agency. This theory sets itself in opposition to popular divisions of food preparation skills, decisions, and consequences apart from themselves, or to

see meal preparation as purely driven by personal will *or* by large societal structures. Food agency captures both individual choice and the systems that individuals operate within; to “have food agency is to be *empowered* to act throughout the course of planning and preparing meals within a particular food environment...agency is the interface between individual choice and structural constraint,” the relative capacity of an individual to act within larger systems (Trubek, et. al, 2015 working paper, p. 6-17). This way of looking at food is crucial because, despite so much food systems research, we still do not know much about how people actually deal with food in everyday practice (p. 19). Solutions to food-related problems, such as cooking interventions for the purpose of decreasing diet-related disease, cannot reflect everyday realities if those realities are not thoroughly understood.

The theory of food agency is strongly situated within the philosophical and social literature on human agency generally. Sewell (1992) argues that, “a capacity for agency – for desiring, for forming intentions, and for acting creatively – is inherent in all humans... agency is formed by a specific range of cultural schemas and resources available in a person’s particular social milieu” (p. 20) and can vary greatly. Albert Bandura (1982, 2001, 2006) identifies the cognitive processes that allow humans to exercise control in their lives: intentionality and forethought, self-regulation, self-reflectiveness, quality of functioning, and attaching meaning to one’s pursuits. These are all represented in how people cook – as agents. They must plan cooking and provisioning;

regulate and reflect on their cooking capabilities to maximize positive results; be able to cook with some skill; and have some reason to be preparing food. Food agency also has the potential to ground theories of agency in real-life research, taking it from the theoretical abstraction that Hitlin and Elder (2007) bemoan as offering no guidance for empirical research.

Bandura classifies three kinds of agency – personal, proxy, and collective. Food agency aligns with personal agency, but incorporates the social conditions, over which people do not have direct control, which give rise to proxy and collective agency (Bandura, 2000). This recognition of sociostructural influences (Bandura, 2004) is one of the ways in which food agency fills gaps of previous food-related theories, such as food literacy (Vidgen & Gallegos, 2014) or food involvement (Bell & Marshall, 2003), which measure how people engage with the act of feeding themselves, from a narrowly individualistic perspective. Food agency, by contrast, attempts to address the concern that agency assumes too much power in the individual and treats non-human forces as purely external (Nash, 2005).

The model of ecological systems, put forth by Urie Bronfenbrenner (1977, 1986), is useful in conceptualizing the hierarchy of these non-human forces. The “ecological environment” in which people act is a nested collection of structures. Closest is the microsystem, the system of immediate relationships such as home, school, and workplace. One step further is the mesosystem, the primary settings of a person at a given point in life – a system of microsystems. Next is exosystem,

or larger institutions of society as they play out on a local level, like government agencies and the distribution of goods. Finally, the macrosystem is comprised of the overarching patterns of society (Bronfenbrenner, 1977). Parallel to these is the chronosystem, a network of circumstances that change over time or lifecourse (Bronfenbrenner, 1986). Food agency theorizing is concerned with how systems both enhance and impinge upon individual agency; this model may allow those systems to be parsed to better see which systems affect agency, and in what ways. For this study, participants were asked to reflect on both the supports of and barriers to their own food agency, or capacity to act, to better understand the mechanisms of agency in their lives.

Food agency was developed in the tradition of sociological, anthropological, and psychological conceptualizations of “agency,” (including Bandura and also Adapon, 2008, Giddens, 1979, and Hitlin & Elder, 2007). Analysis in this project further incorporates Bronfenbrenner’s ideas of ecological systems, to determine the usefulness of that theory in understanding agency. Thus far, the theory of food agency is comprised of three main components: food and cooking self-efficacy, skill and structural support, and structural and individual barriers (pulled from the food agency scale). The following sections explore the literature related to each of these components.

Structural Supports and Barriers; Individual Barriers

An approach that ignores broader contextual forces can lead to romanticism or an overemphasis on personal responsibility. An exclusively structural approach can

be causally deterministic, ignoring agency and the diversity of perspectives and experiences (Rose, 2011, p. 644).

What supports or impedes individual food agency? Food agency theory aggregates structural supports and barriers, including:

- Time to shop and cook (allowed by employment, social life, and family)
- Money for food
- Physical access to food
- Kitchen space and equipment

Individual supports and barriers include:

- Cooking skill
- Meal planning skill
- Family attitudes and culture
- Clean-up

What does the literature indicate about influences on individual cooking practices? A review of existing studies found that self-reported pressures included: time constraints; frustration from previous healthy eating attempts; lack of kitchen facilities; regret over not having been taught to cook as a child; feeling overwhelmed at the prospect of cooking; lack of skills; and lack of confidence (Soliah et al., 2012).

Skill will be discussed more thoroughly with self-efficacy in the next section; here we see what existing research can illuminate about food agency

theory. The connection between cooking and health is also more thoroughly elucidated later in this paper, and will justify why some this discussion rests on health and nutrition research, not exclusively research on cooking. Qualitative investigations by the food agency research team indicated that clean up tasks and limited cooking space both presented serious barriers to cooking. There is little published research on these factors; further food agency research may fill some of that gap.

While the following supports and barriers are parsed for organizational clarity, it is important to remember that personal contexts – the environments in which one’s life plays out – are shifting structures, with shifting influences over agency (Sobal & Bisogni, 2009). This study is focused in particular on a low-income community of color, but also in comparison to a scale developed with data from largely white participants; part of the work is to identify the ways in which agency is experienced similarly, as well as differently, in both groups. For that reason, the review of supports and barriers includes literature for low-income and minority groups, but also more data about Americans broadly.

Time. An oft-cited barrier for cooking is lack of time (Larson et al., 2006; Martine Stead et al., 2004). Although time scarcity, the feeling of not having sufficient time, has been widely linked to declining at-home food preparation, not much research has actually explored the extent to which is this a barrier for home cooks (Jabs & Devine, 2006). Cooking time has dropped off, for women specifically, between 1975 and 2006, while time spent shopping increased

moderately for both men and women, and time spent eating rose (Zick & Stevens, 2010); people are still spending time on food, just not on food *preparation*.

It is easy to substitute prepared foods in order to save time, thanks to the food industry's evolution to offer a range of affordable and convenient foods that compete with home-cooked foods (Guthrie et al., 2002). One study found, however, that time-poor individuals were actually *less* likely to purchase fast food, but also less likely to travel actively (i.e. walk or bike places) than people with more time (Kalenkoski & Hamrick, 2013). This contradiction underlines again how little we understand about people's cooking practices and how they relate to health.

Money. Buying food, whether meals or ingredients, requires money. Rose found that although limited financial resources did constrain human agency, participants maintained some level of control through coping mechanisms like strategic shopping. These coping mechanisms were not always enough to overcome structural constraints—in this case, lack of access to healthy food—just to mitigate them, and agency can differ greatly depending on the structures of a particular neighborhood. Another study concluded that the main element of food insufficiency is more likely to be financial than skill-based (Martine Stead et al., 2004). Lack of skill can combine with lack of money to create “a possible double jeopardy effect for those on low incomes without food skills, who cannot buy

themselves out of the dilemma as readily as can those on high incomes” (Martine Stead et al., 2004, p. 274).

Access. One’s food environment—“homes, schools, stores, restaurants, community gardens, soup kitchens, food banks and other physical settings where the cost and availability of food influence what people eat...[and more broadly] social influences, food marketing and other influences on food choice” (Johns Hopkins, n.d.)—is difficult to measure and not explicitly included in the food agency scale. But it is clear that physical and economic environment can affect food choice. One study demonstrated that people were five times more likely to purchase sweet foods on sale than full price; a single instance of a larger body of literature on the subliminal influence of food pricing (Phipps et al., 2014). Easy availability of prepared, unhealthy foods is connected to environment, whether home, school, or recreation environment (Bisogni et al., 2012). The environmental justice movement— which conceptualizes “environment” as “the places where people live, work, and play” (Novotny, 2000)— is instructive here, underlining that place-based health vulnerabilities arise from ongoing social pressures that shape poor communities of color (Foster, 1998). A study of African Americans living in Detroit revealed that, to address the barriers of food availability, cost, accessibility, and quality, most participants traveled outside their neighborhood to purchase groceries (Rose, 2011). In general, industrialized food chains have led to a concentration of power that has marginalized consumer needs (Lang, 2003).

Alkon et al. (2013) argue that food deserts, or places where there is limited produce and other healthy foods, are often cited as a reason that low-income urban residents experience health problems – an argument that allows for health disparities (discussed later) without blaming the victims of that disparity. This characterization does not, however, take into account the strategic foodways of the urban poor, and the authors concluded that cost, rather than physical distance or lack of knowledge, was the primary barrier to healthy food access in this population (Alkon et al., 2013).

Family. Cooking skills are not separate from the social relationships around it. When people cook, they are usually cooking for others (Trubek, 2012). Family structure plays a significant role in health behaviors (Berge, Arikian, Doherty, & Neumark-Sztainer, 2012). Although women often have the responsibility for preparing meals, that does not necessarily mean they have control over what is cooked, as the rest of the family often determines what is eaten (Martine Stead et al., 2004), although other studies discuss women’s continued power and responsibility as family gatekeepers for food; while families might influence what is eaten, “feeding families is still primarily a woman’s domain” (Beagan et al., 2015, p. 229).

Life Course. The concept of life course affects many of the other supports and barriers to food agency. As a theory, life course “is not merely life cycle development such as growth, maturation, and aging; nor is it simply progression through life stages like childhood, adolescence, and adulthood.” Rather, it

“considers several dynamic processes that transcend cycles or stages, including: trajectories, transitions/turning points, timing, and contexts” (Sobal & Bisogni, 2009, p. S40). Age itself may also be a factor, as some studies have shown that cooking ability and confidence are higher in older people (Martine Stead et al., 2004) – although this may also be explained by life course.

Gender. There is much to be said about the relationship of gender and cooking. This study, however, focuses on the relationships between income, race, and agency – recognizing that cooking and gender have always been inextricably linked (Trubek, Lahne, & Carabello, 2015) The theory of intersectionality instructs us that an issue such as food can never fully be understood outside the lens of gender dynamics. In a recent example, Alice Julier (2013) argues that in the context of contemporary American dinner parties, food is a gender- and class-based performance, filtered through our culture’s racial structures. Her participants functioned in line with their prescribed gender roles, regardless of socioeconomic class or sexual orientation: for men, cooking is performative and applauded; for women, it is expected. Gender is both constructed and reproduced through foodwork.

Intersectionality is the interaction of multiple identities (for example, race, ethnicity, sexual orientation, gender, socioeconomic class) and “experiences of exclusion and subordination” (Davis, 2008). In line with such complexity of identity and experience, this project explores the interface of race and class in a food environment. The coming analysis focuses primarily on race and class, but

acknowledges that gender is a factor, especially in this population of mostly poor, Black women, who face the “triple oppression” of being part of three different oppressed groups (Yuval-Davis, 2006). As Yuval-Davis (2006) argues, “there are some social divisions, such as gender, stages of the life cycle, ethnicity and class, that tend to shape people’s lives in most social locations.” This work does not deny the influence of gender in shaping participants’ lives, but attempts to better understand how ethnicity and class, specifically, shape them.

Skill and Self-Efficacy

Self efficacy involves a generative capability in which cognitive, social, and behavioral subskills must be organized into integrated courses of action to serve innumerable purposes...it is concerned not with the skills one has, but with the judgments of what one can do with whatever skill one possesses (Bandura, 1982, p. 391).

What are the individual mechanisms for agency? Food agency theory posits the following components related to skill:

- Basic cooking techniques
- Ability to adjust/improvise while cooking
- Ability to plan meals

And to self-efficacy:

- Cooking confidence
- Cooking enjoyment
- Interest in cooking (intellectual; not always indicated by enjoyment)

Skill. There is a body of literature examining the question of cooking skill in the American meal preparation (e.g., Soliah et al., 2012, Smith et al., 2013). One study – one of the few found specifically on barriers to cooking – concluded college students (half this study’s participant pool) with the lowest inclination and ability to cook had four main impediments: lack of time, lack of kitchen facilities, regret over not having been taught how to cook, and feeling overwhelmed at the task of cooking (Soliah et al., 2012). While the the first two are structural barriers, the latter two are issues of self-efficacy.

Skill may be related to healthy behaviors, which makes intuitive sense at least for people who are inclined to choose healthy foods; they must have the proficiency to complete tasks that build to their envisioned meals. Another study found that ability to organize, plan, shop, and cook increases chances of healthy cooking, particularly as it related to government recommendations to cook from scratch (Bisogni et al., 2012). Technical proficiency in the kitchen includes not only skills, but conceptual, creative, and organizational abilities (Trubek, 2012). Possessing cooking techniques is also an important competency in evaluating and making food decisions generally (Woodruff & Kirby, 2013).

Self-Efficacy. Cooking skill might not be enough – attitudes towards foods need to also be positive in order for people to prepare foods (Martine Stead et al., 2004). From the view of agency theory, whether people think positively or negatively about their own abilities wither enhances or hinders those abilities,

respectively (Bandura, 2001). Bandura (2001) argues, in fact that “efficacy beliefs are the foundation of human agency” (p. 15), the most central and pervasive mechanism of agency. Food preparation frequency correlated positively with cooking self-efficacy (Woodruff & Kirby, 2013); conversely, lack of confidence can limit meal preparation at home (Smith et al., 2013).

While greater skill may increase one’s self-perceived abilities, self-efficacy is at least partly independent from skill, and perhaps more important than skill.² With children, cooking interventions have raised self-efficacy and positive attitudes towards cooking and, notably, towards vegetable preferences. Students with no previous cooking experience – that is, no skill – showed the most improvements (Cunningham-Sabo & Lohse, 2013). Frustration from prior cooking attempts, if they have not gone well, can encroach on one’s willingness and ability to prepare food (Soliah et al., 2012).

Bandura (1989) wrote that “human attainments and positive well-being require an optimistic sense of personal efficacy” (p. 1176), a concept easily applied to food. “People must have a robust sense of personal efficacy to sustain the perseverant effort needed to succeed....when people err in their self-appraisals, they tend to overestimate their capabilities. This is a benefit rather than a cognitive failing to be eradicated” (p. 1177). Food must be eaten daily; it must be prepared daily, either at home or purchased away from home.

² Bandura (1982) found self-efficacy to be central to the function of agency, with wide explanatory power in terms of personal achievement.

Overestimating one's ability could be the difference between making (unskilled) meals daily, gradually building skill, or giving up altogether.

Leveraging Education for Agency

For many the issue is 'why cook?', when there are other options available. Any intervention seeking to promote cooking must address issues of convenience and time, hence the importance of ascertaining the needs of the target audience (Martine Stead et al., 2004, p. 275).

Cooking is a lifeskill. Unless we teach our kids to cook, any claim to be able to eat or live healthily is hollow (David Blunkett, via Sean Stitt, 1996).

Education complements the theory of agency. To increase agency, it helps to decrease anxiety (Bandura, 1989). Theoretically, decreased cooking anxiety would be a byproduct of cooking education. One possible limitation to education is the possibility that a given environment shapes human intention itself and, by extension, the agency exerted towards that intention (Nash, 2005). If cooking matters for food agency – and, by extension, social justice – how do we increase skill and self-efficacy in order to increase agency, despite structures that impede it?

In defining “food literacy,” Vidgen and Gallegos argue that, at the very least, the following is necessary to be considered literate:

Being able to choose foods that are within your skill set and available time... Knowledge of some basic commodities and how to prepare them... Knowledge of how to prepare some food from all the food groups... Being able to confidently use common pieces of kitchen equipment... [and] enough food hygiene so that you don't poison anyone. (Vidgen & Gallegos, 2014, p. 55)

These skills are not learned by osmosis, however. As Amy Trubek (2012) points out, “cooking is always a *learned* skill... Moving from vague awareness to specific skills, however, is a often a bumpy road” (p. 26-30). Education is required; because most people are no longer learning how to cook at home (Soliah et al., 2012), *formal* education is required. A return to home economics, or some form of cooking education, has been suggested as a key approach for improving American diets through home cooking (Smith et al., 2013). Popular food commentators such as Michael Pollan have touted the idea of gender-neutral home economics as the principal strategy for increasing health through cooking (Bittman, 2013, p. 2).

And yet, the efficacy of cooking education has not been tested thoroughly across a range of income levels. While the literature provides instances of health interventions through cooking, it does not always demonstrate the effects of such interventions. For example, a community-based cooking program designed to increase food literacy for at-risk youth offers a program evaluation plan, but no definite research results from implementing that program (Thomas & Irwin, 2011). Another study outlines best practices for nutritionists teaching cooking to low-income, urban students, but, “cannot demonstrate long-term impacts on dietary intakes, which are influenced by many factors in addition to cooking skills” (Foley et al., 2011, p. 295). Similarly, while there is an established body of literature about nutrition interventions for low-income adults, there is a dearth of research on cooking interventions for this group. One study found cooking

classes can help improve low-income participants' perceptions of the cost of eating healthily by increasing their capacity to use commodity foods (Auld & Fulton, 1995). A preliminary review of the literature does not turn up additional research on the subject. To date, research has centered on health and nutrition interventions in cooking, rather than the broader perspective of cooking interventions as personal empowerment (Trubek, Lahne, & Carabello, 2015 working paper). Woodruff and Kirby (2013) observed differences in cooking skills in children based on gender and ethnicity, and suggest that interventions should be modified for different populations. This has not been true for the food agency pedagogy, and is part of the investigation of the cooking class with a diverse population.

Despite these gaps in the literature, the food agency pedagogy draws on the educational foundation of experiential learning in order to ground food and cooking concepts in personal action. Experiential learning is “concerned with learning through direct experience, which aims to create more effective, engaging, and embedded learning” (Beard, 2010, p. 6). Its theory and practice has been formally researched for over half a century, and is based on the idea that people learn best through doing – although definitions vary, from formal, classroom experiential education to learned work experiences like internships (Kolb, 2014). For adult learners, there must be a continual link between the content being taught and the process by which it is taught (Caffarella & Barnett, 1994), which is how the food agency pedagogy has been developed. The recipes

used in the curriculum do not only impart how to cook a particular dish; they are also the means for developing general skills and confidence. Learning to cook can also mean learning how to cooperate with others and engage with the larger world (Trubek & Belliveau, 2009). Most of the published literature on experiential learning and cooking relates to children. This study seeks to fill part of the gap on experiential learning in older students by applying the food agency pedagogy with adult learners.

If Alkon (2013) is correct and it is cost, rather than knowledge, that most constrains people's food options, education may only do so much to increase agency. On the other hand:

It is recognised that dealing with any one barrier to dietary change is unlikely radically to alter dietary behaviour which will have developed over a lifetime, or to change or influence structural barriers to healthy eating. But pilot studies suggest that food skills interventions may be a useful starting point for initiating dietary change. They may in turn lead on to the development of other issues such as self esteem or enhancing community capacity to set up community co-ops or food delivery systems (Martine Stead et al., 2004, p. 275).

Agency in the Context of Justice

There are many definitions of "social justice." In this thesis, I use the term in line with scholarship on environmental justice and social disparities of health. As previously outlined, communities are stratified by socioeconomic status and race, and these stratifications affect people's health (House and Williams 2000). Environmental justice research centers on how these disparities arise from numerous variables, including not only socioeconomic status and access to

health and social services, but also physical characteristics of the neighborhood or community, including exposure to hazardous toxins (Brulle and Pellow 2006). I believe that people not only have an equal right to health, and therefore to food that supports physical health, but also to systems that promote a broader sense of wellbeing and allow for self-determination in daily food practices. As House and Williams (2000) argue, “Better understanding of the pathways and mechanisms linking socioeconomic and racial/ethnic status is often and appropriately seen as crucial to reducing...social disparities of health” (p. 102-03). New research can expose these pathways, providing knowledge to tackle social disparities. To that end, this research project – incorporating components of food agency, concerns about social health disparities, and concepts about experiential learning to increase self-efficacy – seeks to illuminate how low-income people of color are feeding themselves within large social and economic systems.

CHAPTER THREE
RESEARCH METHODS AND DESIGN

Purpose Statement

This study explores how race and socioeconomic class interact with individual experience of food agency. It is one stage in a multiphase design (see Figure 1) aimed at developing a comprehensive theory of food agency, applicable in any context; a scale for measuring that agency; and a cooking pedagogy for increasing it. Previous work has explored the components of food agency using qualitative methods, and from that developed and validated a quantitative scale. This study (Phase 4) is based on an explanatory sequential mixed methods design (see Creswell & Plano Clark, 2011), and uses previously collected quantitative data, expands on quantitative components with in-depth qualitative data with participants from racial and economic backgrounds that we had not previously included.

The following section outlines methods and design for the entire research project and thesis. Some of this information will be repeated in later sections, as it is relative to that analysis; this is an overview of all work done for this thesis.

Research Questions

Overarching question: How can applying the theory of food agency with low-income participants of color in Philadelphia advance the development and validation of this model?

Question 1: How do participants narrate their daily experiences of food, and what do those narrations reveal about food agency in a low-income urban community of color?

Question 2: As evidenced from observations and interviews, how do community resident participants experience the Food Agency Pedagogy, and are their experiences different from that of Drexel University students?

Question 3: Does the scale reflect the experiences of low-income participants of color, and does it demonstrate a relationship between race, income, and agency?

Research Design

Table 1

Developing a Theory of Food Agency: A Multi-Phase Study

Study Phase	Timeline	Methods	Sample	Product	Contribution to Future Work
Phase I: qualitative data collection	18 months (2013-15)	video ethnography, participant observation	home cooks (n=27) and UVM cooking students, VT (n=8)	graduate thesis on defining food agency and its components in cooking	determination of what to measure
Phase II: quantitative data collection	24 months (2014-16)	focus groups	residents of greater Burlington, VT (n=18)	qualitative data on supports and barriers to agency; questions developed and refined	generate item pool; measurement format and expert review
Phase II: quantitative testing of scale beta version		survey administered (web-based)	participants recruited through listservs in VT and PA (n=445)	database of completed surveys	administer to sample
Phase II: survey refinement		statistical validation	participants recruited nationally through Mechanical Turk (n=498)	Validated scale ready for widespread testing	evaluate items and organize by thematic grouping
Phase III: qualitative follow-up	12 months (2015-16)	participant observations, interviews, survey data (all participants); focus group (some Drexel students, n=3)	Drexel University students (n=8) and Mantua community residents (n=8)	mixed-methods thesis on efficacy of theory and pedagogy with low-income participants of color, recommendation for theory development	qualitative triangulation
Phase IV: intervention	TBD	pre- and post-survey collection and participant observation	students in cooking intervention in cities TBD	pilot intervention, statistical hypothesis tests, and refinement of pedagogy	further validation and hypothesis testing

Previous Research

As this study is the third phase of an ongoing multi-phase study, development of the food agency scale began before this study and continued simultaneous with it (see Table 1). First, the research team held three focus groups in Burlington, Vermont, to create a list of potential elements of food agency. Participants were Caucasian and residents of Chittenden County, Vermont. They were asked questions about the planning, provisioning, preparation, and clean up of meals they made, as well as the family social dynamics around those meals. A team of experts evaluated the resulting list for face validity. The revised survey was administered to a development sample, and, “using factor-analytic approaches, subscales were identified, individual items were retained or eliminated, and a final scale was proposed. The same pool of items was then administered to a validation sample so that the proposed scale could be evaluated for configural invariance. Finally, the two samples were pooled so that the relationships between scale scores and demographic and confirmational variables could be explored” (Lahne & Trubek, n.d.).

Site

This research was conducted in Philadelphia, at Drexel University and its partner, the Dornsife Center for Neighborhood Partnerships. The Dornsife Center functions as Drexel’s version of urban extension and offers a range of

programming – in health and wellness, economic and workforce development, safety and sustainability, civic dialogue, family activities, and arts and culture – to residents of the Powelton Village and Mantua neighborhoods (Britton, 2015).

Research centered on Drexel’s Healthy Cooking Techniques course, which ran from June to September 2015, one of “side-by-side” offerings of this partnership where community residents and Drexel students participate in classes together. Data collection (detailed below) took place on Drexel campus and at the Dornsife Center. All data was collected between June and November 2015, when follow-up interviews were completed.

Dornsife is on the border between Powelton and Mantua, the latter of which is one of the first five “Promise Zones” designated by President Barack Obama: places that, as a result of both their need and potential, will get extra technical assistance and fast-tracking for government grants for community development. Median household income is less than \$17,000 annually, and unemployment, at 20 percent, is double that of the Philadelphia in general. More than half of all residents live below the poverty line, and 90 percent of residents are African American (“In blighted Mantua, a history of poverty, crime and pride,” n.d.). Next door, Powelton has seen more change in recent decades; housing is now 75 percent rentals, most of which are inhabited by students at Drexel or University of Pennsylvania (Britton, personal communication, 2015).

Participants

Recruitment for the Healthy Cooking Techniques course was conducted by Dornsife (through flyers and other promotions) and Drexel (through their course catalog and emails to students). I recruited participants for this study during the first class meeting in June, the sample strategy being to include as many students as possible for the widest range of information. Unlike many exploratory sequential studies, participants were not selected from the same sample that completed the pilot food agency scale, as the purpose of this study was to ensure the theory included the perspectives of people not represented in earlier stages (specifically people of color and low socioeconomic status). The course instructor gave permission to conduct research on the class to Drs. Amy Trubek and Cynthia Belliveau in April 2015. The UVM Institutional Review Board (IRB) office granted its permission in June. Participants were briefed on the project and their rights at the first class in June, and again at individual interviews, and gave their consent to take part (see Appendix A). All the students (n=16) agreed to take part in the study, although due to scheduling difficulties, not all were able to complete interviews.

Measures and Data Collection

Table 2

Data Collection by Method and Research Question

Data Collection Strategy	Sample (N=16)	Research Question Addressed	When Collected
semi-structured interviews ("pre")	all CR (n=8) and nearly all DS ³ (n=6)	1, 3	June
class observations	all CR (n=8) and all DS (n=8)	2	June-Aug
survey ("pre")	all CR (n=8) and all DS (n=8)	3	July
follow-up semi-structured interviews ("post")	CR (n=6)	2, 3	Nov
follow-up focus group ("post")	DS (n=3)	2, 3	Nov
survey ("post")	all CR and DS from follow up (n=9)	3	Nov

Several types of data were collected during this phase of the project (see Table 3). I conducted open-ended interviews during the first month of the class (all class members agreed to participate; due to scheduling, 14 of 16 took part). Follow-up interviews and a focus group took place three months after class had ended (all 14 previously interviewed participants were invited, and 9 took part). A fellow graduate student and food agency researcher conducted open-ended, participant observations of the cooking classes (8 of 10 total weeks). She also administered the second version of the food agency scale, condensed and refined from the first version using scale validation methods, to participants in paper

³ CR = community resident/member of Dornsife Center; DS = Drexel student

form about six weeks into the class (as soon as this version was available, in July, after the first interviews). In lieu of a follow-up interview, I held one focus group for all Drexel students who had been previously interviewed, in order to get group-inspired feedback and to have a manageable amount of follow-up data. Both the interviews and focus group were audio recorded. I used different interview protocols for interviews, follow-up interviews, and focus groups, with clarifying questions asked as needed (see Appendix B). To develop the first interview protocol, I examined the food agency scale (see Appendices C and D), covering the three sub-scale categories of skill/structural support, barriers, and self-efficacy. (These three categories have since been re-grouped, based on internal statistical validity with one another, into Skill, Attitude, and Structure). Many of the scale's questions were intentionally redundant for statistical reasons, and I condensed the overarching themes (e.g. what supports cooking, what inhibits cooking, what are actual cooking practices) into individual questions in order to triangulate the survey instrument with narrative data. The focus on supports and barriers was intended to bring in the previously reviewed literature on structural factors of agency. I also added some questions for context (e.g. experience with cooking, childhood memories of cooking). Follow-up interviews repeated many of these questions and included new ones to reflect on the experience and efficacy of the cooking class, and whether participants identified any changes in their cooking practices as a result. The focus group protocol was virtually the same on paper, but I asked follow-up questions differently to

accommodate the group and make sure everyone participated equally.

Participants of the follow-up interviews and focus groups filled out the scale for a second time, again to track any changes in agency.

Table 3

Data Collection Methods by Research Participant

Name ⁴	DS/CR	Observations	Interview 1	Survey 1	Interview 2 or Focus Group	Survey 2
Allen	CR	✓	✓			
Anjanette	CR	✓	✓	✓	✓	✓
Annie	CR	✓	✓	✓	✓	✓
Candy	CR	✓	✓	✓	✓	✓
Francine	CR	✓	✓	✓		
Geena	CR	✓	✓		✓	✓
Jamar	CR	✓	✓	✓	✓	✓
Tisha	CR	✓	✓		✓	✓
Evangeline	DS	✓	✓	✓	✓	✓
Huan	DS	✓		✓	✓	✓
Kelly	DS	✓	✓	✓	✓	✓
Mike	DS	✓	✓	✓		
Summer	DS	✓	✓	✓		
Participant A	DS	✓				
Participant B	DS	✓				
Participant C	DS	✓	✓	✓		

Interviews were conducted at the Dornsife Center or on Drexel campus, for community members and university students respectively. Observations were recorded with field notes. Observational protocol was informally developed through an agreement that the other researcher would look for

⁴ Participants have all been given pseudonyms. Participants A, B, and C do not appear in qualitative analysis.

themes from the scale (for example, confidence, skill, and trouble-shooting ability during cooking) and also for any unexpected, emergent information. We had previously used the format for observations – free-form recall written within one day of participant observations – while teaching a cooking lab to undergraduate nutrition majors at UVM.

Analysis

Coding

Analysis focused primarily on qualitative data. Protocols for collecting interview and observational data were developed to tease out themes from the quantitative scale; the resulting transcripts and notes represent the bulk of the data and the analysis for this phase. First, I conducted a literature review to explore the existing research on constructs from the food agency scale and on the specific research population. I then developed a qualitative codebook based on a deep reading of four first-round interviews (two Drexel students' and two community residents). I developed modified codebooks for follow-up interviews (which had a different question guide), which was based on the original codebook and a deep reading of two more follow-up interviews. I also developed a modified codebook for the class observations, again using the first interview codebook but adding codes specifically related to cooking education (e.g. technique, timing/sequencing, etc.). This iterative process allowed for codes to exist across data collection types, while also allowing for different methods or dates of collection to yield different information.

During the process of qualitative coding, I was also conducting deep reading and interpretive analysis of seven participants' interviews and writing narrative analysis of the data (see Article 1). Narrative writing can be an important method for discursive analysis; a way of investigating subjective realities (Biglia, 2009). This is a method of analysis sometimes employed anthropologically, perhaps most notably by Clifford Geertz whose work largely follows interpretative, literary thread in anthropology that was aimed at relativistic and plural perspectives (Boskovic, 2002). This portion of my analysis addressed Research Questions 1 and 2⁵. Although this activity was distinct from my qualitative coding, it doubtless affected my relationship to the data and informed the development of groups of codes, at the very least because I was more familiar with nearly half the data collected.

Thus, I employed a hybrid of thematically informed coding (Dowding, 2013) and grounded theory. Grounded theory coding uses inductive analysis to allow patterns, themes, and categories to emerge naturally from the data, rather than be imposed on it. Adapting grounded theory by using "sensitizing concepts" permits the literature to act as a starting point for analysis, a gentle guide to how observed phenomena fit into conceptual categories (G. A. Bowen, 2006). This strategy allowed me to focus my coding, draw connections to existing

⁵ *Question 1:* How do participants narrate their daily experiences of food, and what do those narrations reveal about food agency in a low-income urban community of color? *Question 2:* As evidenced from observations and interviews, how do community resident participants experience the Food Agency Pedagogy, and are their experiences different from that of Drexel University students?

work, and explore emergent themes that food agency theory may have overlooked.

Preliminary quantitative data analysis was conducted by Dr. Lahne and included in the discussion section of this thesis's second article.

Integration

Integration of data occurred in several ways. The narrative analysis (Article 1) relied heavily on interview data, but was informed by participants' survey data (e.g. to verify race/ethnicity and income level that could be incorrectly inferred by the interviewer) and also, indirectly, by the class observations, which did not appear in the text as data itself but which provided a contextual backdrop that connected all participants and their relative interest in learning about cooking. Because this was a multi-pronged process that involved all aspects of food agency – theory, scale, and pedagogy – the cooking class was an important part of holistic research design; the richest qualitative data, however, came from interviews, which is why the qualitative analysis focuses less on the class observations.

The mixed-methods analysis (Article 2), which addressed Research Question 3⁶, focused primarily on developing, from the qualitative coding, items related to food agency, and then comparing those to items on the food agency scale to determine the extent to which the scale reflects – or does not reflect – the

⁶ *Question 3*: Does the scale reflect the experiences of low-income participants of color, and does it demonstrate a relationship between race, income, and agency?

experiences of this participant pool. While traditional mixed-methods scholars like Creswell generally look for confirmatory findings (Creswell & Plano Clark, 2011), conflicting findings are also useful, providing “the opportunity for a process through which apparently discordant results are reconciled, potentially leading to new emergent understandings of complex social phenomena” (Wagner et al., 2012, p. 54). These two sets of items – mine and the scale’s – were arrayed side-by-side for clearer visual understanding of the connection between the two (see Creswell & Plano Clark, 2011). Individual quotes were integrated into the analysis to provide some real-life context on which the qualitative items were generated. Participants’ survey data was also arrayed in a table for context on indicators such as race/ethnicity and income, as that demographic data relates directly to the research questions. Finally, preliminary quantitative analysis was incorporated into the discussion section to provide broader statistical context for the relationships that the qualitative sample was designed to address.

This study’s primary strengths come from its multi-phase design, which allows qualitative and quantitative data to together inform the further development of the theory of food agency. Integrating different types of data allows for a more complete picture; “a core assumption of [mixed methods] approach is that when an investigator combines statistical trends (quantitative data) with stories of personal experiences (qualitative data) this collective strength provides a better understanding of this research problem than either

form of data alone” (Creswell, 2014, p.2). Using the scale’s constructs to develop data collection protocols enhances the chance that my qualitative effectively illuminates where the scale does and does not reflect the experiences of my research participants. The longitudinal aspect of the research provides insight into the longer-term impact of the pedagogy, that is, whether it has staying power in people’s everyday practices.

The study’s main limitation is the inability to generalize any statistical information revealed by the existing food agency scale database. There were a few other issues with data collection. First, interviews and observations were made by two different researchers, and although we had worked together previously and jointly created an observation protocol, the divide in what we each naturally look for made it more difficult to analyze interviews and observations in concert. Second, follow-up interviews (for community residents) and one focus group (for Drexel students) were scheduled from afar, five months after the first interview and three months after the class had concluded; I was not able to follow up with all participants. Incentives for participating (\$20 gift cards) were sent after the class was over, with a request to confirm interest in follow-up interviews, and the incentives for follow-ups were much higher (\$50 gift cards), to encourage people to continue until the end of the research project. These incentives minimized, but did not eliminate, attrition. Finally, community residents who were observed and interviewed had self-selected based on their interest in cooking, which means that the data yielded is perhaps narrower than

if we had also interviewed folks with less demonstrated interest. Despite this limitation, participants are still from different demographic groups and regional backgrounds than participants from previous stages of the project, expanded the net of food agency.

CHAPTER FOUR
OF AGENCY AND NAVIGATION
STORIES OF FOOD AND SELF FROM PHILADELPHIA

Introduction

The following article will be submitted to a journal like *Anthropology and Humanism*, which publishes anthropological essays and narratives, and the structure and tone of this piece reflects that orientation.

In June, July, and November 2015 I spent three weeks in Philadelphia, Pennsylvania, interviewing the members of a Healthy Cooking Techniques course offered by Drexel University. The course was a “side-by-side” class, half Drexel students, and half community resident members of the Dornsife Center for Neighborhood Partnerships, Drexel’s partner in civic outreach and services for the neighborhoods of Mantua and Powelton Village. The class was similar in structure to a Basic Concepts of Food lab I assistant-taught at the University of Vermont (UVM). Basic Concepts of Food explore just that: the physical, cultural, and sensorial components of food and cooking; the lab develops cooking skills around basic food groups such as grains and proteins. It is required for all dietetics and nutrition majors. Drexel’s course was also based in practical knowledge and basic food science as it relates to cooking. The UVM lab was an informal testing ground for my advisor and her research team, who are developing a new theory of “food agency,” as well as a cooking pedagogy to increase food agency, and a scale to measure it. “Food agency” is an individual’s

capacity to prepare meals within their particular food environment. As a theory, it aims to capture the individual's knowledge, skill and self-efficacy of a cook as well as the larger socioeconomic structures that influence what kinds of food are available.

Because so much of the initial observations and data collection had been done in Vermont, in focus groups, in a previous master's thesis with home cooks, and in the lab (the latter with UVM dietetics majors and nutrition and food science majors and minors who are almost exclusively 18-22 years old, white, and female), I was curious what we might learn about food agency if we worked with a different group. The implications for theory seemed significant; a quick review of the literature reveals that people of color and of low socioeconomic status are far more likely to experience disproportionate health effects of the food system. We theorized that income and time were potential structural barriers to food agency. I thought it important to make sure this concept integrated experiences of people from a range of backgrounds, but especially those who were most likely to experience systemic constraints on their capacity to act.

The Healthy Cooking class was an ideal place to talk with a more diverse group. Philadelphia (population: 1.5 million) is far more urban than Burlington, Vermont (population: 42,000). The community residents all hailed from Mantua, where more than half of people live below the poverty line, and the population is overwhelmingly Black; Burlington has a median income of over \$42,000, and is

88 percent white. The class also allowed for a comparison between the young students in school and the older adults from the community.

I entered this research with the essential components of food agency theory in mind. The scale includes categories about income, energy levels, interest in meal preparation, ability to improvise while cooking, social pressures to cook, and shopping practices. But I tried, too, to enter my interviews with an open mind. I asked follow-up questions to tease out what seemed interesting, relevant, or surprising in our conversations. I tried to speak with all sixteen students twice, once in the summer and once in the fall. What follows is a series of accounts, descriptions of seven members of the class, and what I learned about how they shop, cook, and eat. (The following article will explore more of their survey data and observations of them in the classroom, along with this information from these interviews.) Although there are similarities and differences in these stories, and food agency plays out in nuanced ways in everyday life, a common thread emerges: participants are strategic and intentional in how they get and prepare food, and their strategies allow relatively successful navigation and resistance of a food environment that would otherwise prohibit them from feeding themselves.

“I have to cook because if I don’t cook, I will eat junk food”

I first met Anjanette in the sunroom of the Dornsife Center. She is African American, middle-aged, living along with one son grown-up. She is heavysset with very straight posture and a regal way of holding herself, head tilted and hands folding in her lap, which makes it seem like she is holding court. We sat on a couch, turned three-quarters towards each other. She wanted to know how many questions I had for her, and responded to them easily but not with particular warmth – and yet, we talked for nearly a full hour, until she had to leave for another class.

Anjanette grew up visiting her grandmother's North Carolina farm during the summers. During our interview, she spoke of it in much greater depth than about where she spent the school year with her parents (in the city); it was clearly, from her perspective, where she came from, the place against which she compares her current experience of food. The farm was not fancy – no electricity or refrigeration, an outhouse – but abundant:

I really love vegetables [which she pronounces 'vegebles']. We always had a lot of vegetables growing. Because my grandmother had a lot of farmland in North Carolina. So there was always fresh fruit to grab off the trees, peanuts, walnuts, pecans, grapes...Berries. They grew wild along the roadside. So we always had a lot of vegetables and very little meat...it was hard storing it, you know, frozen foods? They had a big chunk of ice and my grandmother wasn't really okay with that...[she made] a lot of bean soups, a lot of grains, you know, collards, turnips, kale, spinach, all types of greens, and she served them all types of ways...It was very amazing...We had a smoke house, but eatin' all that smoke wasn't healthy for you, so if we did get some, it was a small piece. It wasn't because she couldn't afford it, it was for health reasons. And sanitation. You know. There's a lot of flies out there, a big open field.

When we met five months later, the tone was nearly opposite of our first chat. Anjanette was enthusiastic, friendly, open. I will never know if it was because she was more comfortable with me the second time around; or if I benefitted from her gratitude for the cooking class, which she gushed about; or if it was her excitement over the Whole Foods gift card I was giving her; or if it she was just having a better day. She was happy to see me, and after the interview showed me pictures on her tablet. Her cooking, her visiting the Amish, her with friends from class. Repeatedly, she asked that I pass on her thanks to the chefs who had taken the time to teach her.

Anjanette described for me what a normal day looks like for her, in terms of food:

Oh, I'm very simple. Like Benjamin Franklin. I have a very simple schedule. I basically eat the same thing every day, like for breakfast. I have my morning oatmeal with granola, my green tea, then...when I'm leaving for work, my water, my applesauce, and a banana. Or either yogurt. [When] I have some work done, then I can start eating like, the nuts and stuff like that. But oatmeal and the banana and applesauce, that's what I'm able to eat, then I have water, I have cranberry juice that I add...lemon juice in it because it's so sweet and I'm tryna cut back on sugar. Then for my lunch I have soup. I cheat on my soup, I am a lover of Progresso.

She went on to detail her afternoon snacks – “probably something I'm not good to have,” like the chocolate chip cookies she's “addicted to.” For dinner, she mentions things like spinach, spanakopita from Whole Foods, quinoa, purple potatoes.

I believe Anjanette spoke so easily about food, even before she seemed comfortable with me, because she is deeply interested in it. She is immensely

curious about new and different ways of cooking; she has taken two cooking classes at the Dornsife Center, and talked at length about the lifestyle and cooking habits of the Pennsylvania Dutch, whom she visited with a class, and whom she regularly buys “treats” from at Philadelphia’s Reading Terminal food market. Even as I interviewed her, she asked *me* her own questions. Did I know how healthy it is to eat raw, rather than cooked foods? What is the best way to dry produce for preservation? What are healthy snack substitutes? She spoke more than once about getting recipes from people, whether at a barbeque or from one of the teaching chefs, and is dismayed by people’s unwillingness to share their culinary secrets. When a friend walked by the window, she waved and pointed and said, that’s the person who made the kale chips I told you about! More than any of the people I interviewed, she offered rich and extensive detail about what she eats, what she buys, and what she wishes she would eat or buy.

Perhaps because of this deep involvement with how she eats, Anjanette expresses both pleasure and concern about what she consumes. She seems to identify with her food choices. “I am an oatmeal eater,” she said. “I love Goya”; “I’m not really a bread eater”; “I am a lover of beets” (this quote twice!); “I am a lover of Progresso.” Her personality, in our conversation, is built around these preferences and choices. And they are not static: she seems to always be optimizing, switching from regular bread to a flat one (perhaps pita) because it seemed healthier, and was considering purchasing Ezekial bread, also for its

healthiness. She gathers information about nutrition and cooking technique like a magpie collecting shiny objects, and makes her nest around them.

But this enjoyment of food also worries her. When I asked her what motivates her to cook, she replied, “I have to cook because if I don’t cook, I will eat junk food.” She believes that meals should be structured around “balance” and “nutrition.” Anjanette struggles with temptation – if there is extra food, whether dinner leftovers or a box of her favorite chocolate-dipped madeleines from Whole Foods, she does not feel satisfied until she has eaten them all. She sees her canned soup lunches as “cheating” because Progresso has so much sodium, even though she buys their “light” versions. She drinks almond milk rather than cow’s because it’s not “heavy on your body” and she feels less bloated afterwards. In both June and November, she spoke about needing to change her habits, especially around snacking. She connects her own eating to larger societal patterns – “A lot of us, especially in America, we overindulge” – but still frames the issue as her own to solve. “I need to incorporate better eating habits,” she told me. “I have to change my lifestyle. It’s not about money, it’s about bein’ happy and healthy.”

That said, Anjanette only sees herself as having a middling amount of food agency. “It’s time, and expense. Time and money. Cuz you might go to the market, you see that beautiful piece of salmon. Then you look in your pocket.” She mentioned salmon again when we met in November, saying it was expensive, but worth buying.

Throughout our conversations, Anjanette spoke of exposure – to cooking techniques, to new foods, and to students of different nationalities and traditional cuisine. She listed many dishes that they prepared as a class and that she later replicated for her co-workers and son. In November, she reported that she was using more and different herbs and spices in her cooking, and had learned new techniques for cooking fish and chicken, beyond her normal practice of frying. At one point, she turned the conversation back to “learning what enhanced me,” and said, “I have to give my props to these two chefs, just being exposed to healthy cooking classes, that really helped me a whole lot.” She lit up with the excitement of this exposure and all the ideas it sparked.

Although Anjanette’s current food environment is a far cry from her grandmother’s, she follows some of the same patterns. Like her grandmother, she focuses on more vegetables, little meat. After the cooking class, she has begun to make her own salad dressings and is increasingly interested in food preservation techniques. Her shopping strategies maximize food quality while minimizing cost. And food is still communal to her, perhaps as it was when she and her cousins were assisting in her grandmother’s kitchen. At the start of the class, she predicted:

We gonna learn a lot. We gonna get a lot of recipes from our classmates. We really are...wherever they’re from, we gonna bring recipes to the table, we gonna share a whole lot of information with each other. And a lot of friendships are going to be developing, because that’s one way of how people get close. I don’t know why. It’s through food!

“Is it fulfilling?”

Annie showed up for our interview with a wheeled basket in tow, carrying all the belongings she needed for the day. She is a short Filipina woman with smudged glasses that are missing one stem, tilted on her face so that she appears to be always cocking her head to one side. When I met her the second time, the glasses were still broken, which she pointed out herself (perhaps self-consciously) as evidence of not having much money to spare. During this second meeting, she spoke at length about a conflict with another research participant and classmate, and asked me for advice for how to handle it, socially and legally. As I went through the research information, she insisted she didn't care so much about the gift card as the content of our conversation. "I love interviews," she says, giving detailed, articulate answers to each question.

For Annie, meal planning represents a tension between tradition and nutrition. Until age seven, she lived on her grandparents' compound in the Philippines. She described catching chickens for her grandmother to slaughter, which she then helped de-feather; waking 4 a.m. to watch the fisherman come into port and picking the best fish off a string; harvesting fresh coconuts from the backyard. She and her friends imitated their parents, harvesting plants with razors – like kid-sized knives – and catching and plucking pigeons, roasting them in coffee cans over a small fire. "So I've seen every[thing] – the process from the time it's harvested to the actual finished product." She still eats fish and vegetables for nearly every meal. "So basically my diet consists of legumes and nuts, vegetables, and fish," she says. In the second interview, she adds fruits and

water to the list. “Can I eat chicken? Yes. Last night [in class] I did, to taste it, and my stomach went haywire. Because I had not consumed poultry for so long.” She avoids rice because she believes white rice has no nutritional value and she should eat brown rice, but she cannot get “acclimated” to its taste and texture. Like Anjanette’s goals to reduce snacking, she’s “working on it.”

Annie’s big life transitions appear very tied to transitions in how she eats. She and her family moved from the Philippines to a very poor part of Philadelphia. She describes it as hostile and violent:

There was absolutely no gardens compared to now, where there’s community gardens....even the back yards – I planted and neighbors, we had next door neighbors who were drug addicts, and unfortunately the wife would bring the dog and the dog would defecate and urinate on my garden...so I was introduced to fast foods, processed foods. Unfortunately my parents – and this is one of the things that I was very angry and resentful [about] – they were educated people but they didn’t explain to you the importance of eating right and correctly and why. What does it do to your body. And exactly how your organs process things.

She notes, too, that schools do not teach nutrition, so that job falls to parents; hers failed in that. Annie’s older sister went away to a private high school and learned about vegetarianism, first sparking Annie’s interest in diet and digestion. Then her brother went to do missionary work and became a vegetarian. Annie determined to learn how to “become vegan correctly, so I don’t lose the nutrients and minerals.” If she gave blood or visited the doctor and was found deficient in iron or another nutrient, she ate “lots of greens, and then everything [nutrient levels] would go up. So with that, I learned I don’t really need to eat meat.”

The most important, recent transition in Annie's life came from the establishment of urban community gardens. Now, she says, she grows all her own vegetables. She reports that her monthly food budget is probably \$15 a month for olive oil, although she lists buying other groceries: soy sauce and other Asian condiments, nuts, dried fruit, vegetarian meats, rice, onions, and garlic. She speaks of the garden as liberation:

The ability to plant and then harvest really is the key to my freedom. I can eat whatever I want because I can plant whatever I want. My favorite vegetables, you know. Which would cost me so much – every time I go the supermarket, I tend to just go there just to look at the prices. It just boggles my mind. I mean, you just buy a little bit of asparagus, can you imagine if you were a struggling student? Or you have 5 kids? There is no way you can feed that. So I understand why they buy processed food. Processed food's cheap. But imagine if you're taught at a very young age how to plant. You will not even go grocery store for your basic necessities...the fact that there are now areas where you can garden, it just opened the doors for me. I'm not constrained. I don't feel like I'm denying anything.

Like Anjanette, Annie relates her own experience to what she sees as wider societal patterns of shopping and eating. And she has such compassion for people without her current advantage – although this advantage is her ability to grow food, not even to purchase it. Living alone, without children or partner, focusing intensely on her own diet could make it hard for her to relate to others' struggles. Instead, she demonstrates a compassion I personally feel is lacking in social discourse about how and what poor people eat. The conclusion is the same: pricing makes it impossible for poor families to afford healthy food. But Annie frames this differently than most media articles I read about this struggle

because she does not judge that choice (or lack thereof), and pivots to how her neighbors could be more empowered.

Like the other women I spoke with, Annie is very strategic about food provisioning, even outside of gardening. Perhaps more than the others, she is also very strategic about meal planning. When she was a student, she cooked all day on Sunday and refrigerated portioned meals in Tupperware for the entire week. She identifies the barriers to her cooking as related to shopping. It's "time, sometimes, time and my energy. I'm so exhausted at the end of the day and then on Sunday my schedule is back to back, just the fact of getting there [to shop] is time consuming...when I'm in the supermarket itself I know where things are...I'm in there 15 minutes, I'm done, but just getting there, it takes more than an hour because I take public transportation." She says she sometimes wakes up at 4 a.m. so that she has enough time to cook before leaving for the day. This question of transportation came up in many of my interviews; the women know what food they want to buy and where, but the process of getting there is complicated and time intensive.

What foods are so important that people will travel to buy them? Price and quality are important, but so too are the *kinds* of food. We are all shaped by the meals of our childhoods. They can affect what we expect from food for the rest of our lives. For Annie, her inherited, normative sense of food is rooted in her Filipino culture, although she has lived most of her life in the United States, and has adapted those practices. "American food is extremely boring," she says.

“You have donuts and coffee in the morning, I’m shocked. In fact, I could never wrap [my head around that]. That is not breakfast!” Both times we spoke, she claimed that Filipinos eat “like a king” for breakfast. “And we eat like a pauper for dinner...that’s basically the healthiest way. But I eat like a king for every meal. [She belly laughs] I throw away that rule.” She deviates from tradition, but she eats very simply by American standards: fish and vegetables for nearly every meal. It must be “mainly vegetables,” and she rotates the fish she eats – for example, butterfish in the morning, blue fish for lunch, red snapper for dinner, in a different order the following day. To her, this is “variety,” a theme that emerges in many interviews as being necessary for the enjoyment of food. Her Filipino friends eat chicken and pork, which she feels corrupts her clean palate. She uses, but is suspicious of, bottled Asian sauces. She has integrated her learned ideas about nutrition, and narrowed her cultural practices. She has done this with great intention. And she sees great payoffs; when I ask what helps her cook and eat the way she does, she says, “when I go for my physical [exam], my folder is thin. [She laughs.]...the fact that I am in control in regards to my health motivates me a lot in terms of what I eat, why I have to cook.”

Annie would like to move back to the Philippines eventually. She wants her own land to grow everything she loves. Her older sister lives in New Jersey, and has a life that sounds much more financially secure. Far from expressing envy, the “cookie cutter” houses of her sister’s suburban neighborhood offend Annie. “I would forgo the cosmetic part versus my freedom of what I can do

with a piece of land around me,” she says. “For me, give me a little house on wheels, as tiny as can be, but I have to have at least land.” In this, her aspirations are both modest and supreme: few belongings, total freedom. And she wants it for everyone, to experience the independence from food stamps and even from grocery shopping. If she had the money, she would learn more about nutrition, and she would fund endeavors that helped others learn about it, too.

In the Philippines, Annie says, she could grow avocados and mangoes; she could escape the crime of Philadelphia. Still, she sees her choices as unconstrained. When I asked her to rate her own food agency, from 1 (totally constrained) to 10 (totally free), she chose 10 in both interviews. She hasn’t always been there, she admits – “It’s the garden.” I ask her what is the most important thing to consider when she is cooking a meal. “Is it fulfilling?” she responds. When she eats American foods at social events, she is not satisfied. “I find true happiness just eating what fulfills me, which is pretty much fish and rice and vegetables.”

“When women gave up their pantry, they gave up their power”

Geena, a middle-aged Black woman, met with me twice to talk about food. She speaks in great detail about a variety of nutritional and cultural food issues; she has great knowledge of food from lived experience, but is dissatisfied with her ability to feed herself adequately, and constantly seeks out information to maximize her understanding and therefore her control over the food she eats.

In this pursuit, she synthesizes pop nutrition, historical context, religious teachings, and observations of her own body.

Geena became a vegetarian in college, learning about food in a way that “helped me now, in my later years, trying to survive.” Health problems led to “natural doctors” and a mentality that the concept being “healthy” is to “healthy[self],” with food. She now eats “everything in moderation...even the so-called ‘good food’ can kill you if you eat too much of it.” She also eats “Biblically”: no scavengers, no shellfish. When explaining her departure from vegetarianism, she tangentially mentions that kids who are vegetarian are smaller, whereas Mongolians were [historically?] bigger than vegetarian peoples. Also, she points out, God said it was ok to eat meat “after the flood.” This mix of sound versus fringe nutritional understanding demonstrates the struggle of how to make sense of choice in a food system of both abundance and disease.

Much of Geena’s understanding is gleaned from magazines, which strikes me as a perhaps oversimplified, body-image-oriented take on healthy eating habits. On the other hand, she does feel much healthier than she used to, and magazines and internet are probably the most accessible sources of nutritional information, even if *I* perceive them as reductionist. Her tips and tricks for healthy eating are a way of gaming the system that I normally associate with college-aged women, figuring out for the first time how to keep themselves healthy (and, often, thin) once deprived of the structure of their parents’ food

choices. Her “skilled practice” is less about the preparation of meals than about the relentless analysis of particular ingredients:

And then I’m like, yeah, I don’t eat salt. So. Every once in a while I eat sea salt. But it doesn’t have the iodine. So I’ve totally taken that table salt out of my diet a long time ago, because that’s the one that gives you high blood pressure, too. So I stopped using it. But every once in a while I’m gonna have to use it just for the iodine, though. [I mention seaweed has a lot of iodine] Yeah. But now you gotta be careful – I get this thing started just recently...getting free newsletters – and I had already did this research before about rice because I had gotten something about rice, having arsenic in it, and I just got this thing yesterday...it’s not just in rice, it’s in other things, too. Seaweed! ...So I said, there’s organic and inorganic arsenic. And so that’s why I tell everyone, everything in moderation now.

In describing the evolution of her thinking Geena illustrates the complexity – the near impossibility – of making an entirely “healthy” choice within a complex system of information and risk. I don’t know how much of this focus on salt is specific to her; the African American community experiences higher rates of hypertension, which is exacerbated by sodium consumption. If this is her motivation, she is translating general, population-wide knowledge of nutrition to specific practices in her own life. Regardless of how much Geena’s perceptions are scientifically rooted, she has done extensive research and paid careful attention to her body; she is utterly dedicated to keeping herself healthy in a food culture that normally devastates the health of poor, Black Americans. Perhaps she *has* to be this involved to resist the forces of diet-related disease to which she is, statistically, highly vulnerable. More than food, she consumes information.

The reason Geena needs to self-educate and strategize for healthier food? Lack of power. “When women gave up their pantry,” Geena tells me, “they gave up their power.” With a pantry, women prepared for winter. They had a buffer for power outages, money shortages, and emergencies. But no longer. Geena implicitly connects current food choices to the larger context of African American and slave heritage. Poor people, she claims, “knew the better food was the food you got out the ground and you’re not doing that much to,” which is perhaps differently phrased than in dietary guidelines, but essentially boils down to a similar idea of eating simple, unprocessed, vegetable-based diet.

It weren’t a long time ago when we were natural foods and you couldn’t save anything, you couldn’t put it in the refrigerator and you had to just eat what’s out of the ground. But now everybody’s getting sick. Even the young kids. Even born that way....But it’s something you can’t tell people...you have to learn it on your own [after a health crisis].

Geena is a complex thinker when it comes to food. She focuses on nutrition, on the interaction between food and body, but also takes great pleasure in eating, and thinking about eating. When I asked what her favorite dinner is (an easy ice breaker to get people talking about food), Geena demurred: she isn’t sure she’s had it yet. She read about a restaurant she’d like to visit in Chicago where meals are designed to evoke memory. “It’s not just dinner; I’m looking for experience.” She imagines assembling all her favorite foods – the rainbow kale salad from Whole Foods, a juicy chicken, a tender steak.

For people of means in America, putting together that dinner would be a relatively simple endeavor. Geena, however, is dealing with what she calls “her

circumstances.” She owns her own house, but cannot afford to maintain it. The roof leaks and the electricity had to be shut off, and so she cannot cook at home. I don’t know how long she’d been living without electricity, but when we spoke in June, it did not sound like a new development, and the situation hadn’t changed when we spoke again in November.

So Geena might eat only one meal a day. She tends to do this at the Whole Foods buffet because “going through supermarkets, a lot of the stuff isn’t really healthy, once I started reading the ingredients...even at Whole Foods.” It’s worth repeating here: this is a woman who cannot afford electricity or enough food, who is not only *not* eating fast food as our cultural stereotypes might have us believe, but effectively settling for Whole Foods, arguably the highest-quality supermarket chain in the country. (And she’s not alone: several of these women mentioned shopping at Whole Foods when possible because other stores lacked comparable quality.) She is constrained not only by income, but by the quality of what is available. Her self-assigned food agency score was one out of ten, by far the lowest of anyone I interviewed. She doesn’t have the means to make *any* choices, she says, so she cedes her agency as best she can: “the next best person to [make choices] for me is Whole Foods.” This trust in Whole Foods, to make similar choices in the ingredients of their prepared foods as Geena would herself, is how Geena manages to retain some control over what she puts in her body. It is the most she can enact agency in her current situation. It perhaps does not feel like much of a choice, however, because there is no decent alternative.

Geena's personal food constraints are unrelated to skill, and perhaps for that reason, she saw the cooking class as a fun diversion, not a life-changing pursuit. Always thinking about bigger picture, she acknowledges that it might be good for her and her community, but says she signed up to have something fun to do during the summer – to get out of the house – and to not get into “bad habits” of incorrect cooking techniques. In our second interview, she appeared unimpressed by the course, expressing that it was “a nice experience...[but] you teach yourself to cook.” In our first interview, she didn't anticipate any changes because she already ate how she wanted; in her second, she confirmed that the class had not changed her diet but her recent reading (this time on eating for your blood type) had. Although she's very health-focused, her concern about fat is largely about appearances; she dislikes how “belly fat looks” on her. The slight contradictions inherent in how Geena approaches food – curious but set in her ways, making choices for health or for aesthetics, self-disciplined and also pleasure-seeking – do not necessarily indicate confusion or hypocrisy. Rather, they remind us of the deep complexity of our relationship to food, even for someone who thinks about it frequently and critically. It is perhaps never possible to say whether someone eats “well” or “healthily.” There are too many mediating factors for us to even determine what those terms mean.

Like several of the other women I interviewed, Geena connects her situation to larger systems. She recounts her discovery of how useful fried chicken is for keeping protein edible on long trips – “something that became a

very negative stereotype with African American people, you realize when you're older why it's done...that's really smart" – and meditates on how Philadelphia's farm to plate movement hasn't reached elder care homes that desperately need quality food and nutrition. To truly trust food, Geena thinks, you must grow and cook everything yourself. "I read about slaves in the south, how well their diet was because of the fact they grew their food, so it was mostly vegetables. And then understanding that vegetables are your best source for many things...calcium...nutrients."

When I remark that most people don't pay as much attention to their food as she does, Geena agrees, "most people don't. It's whatever makes them feel good [in the moment]." But rather than setting herself apart, Geena wishes she could share her vision, imagining a public food forest where people would grow food and host outdoor dinners, making pizzas, grilling food, "the way people used to eat...the best thing about eating is really sitting down and sharing with people." I don't know if she means that people used to eat fresh foods prepared outdoors, or that they used to eat together. Maybe both. Either way, she has a desire to return to simpler practices – a desire that Anjanette echoes in her admiration of the Amish. In Geena we see a woman who has been alienated both from her preferred foods and from other people, but still connects her own daily experiences to her peers and heritage.

Geena has had to figure out how to feed herself with very little money and in a way that aligns with her nutritional values. If things were "more ideal," she

would fix her house; she would have some more useful kitchen equipment; in the ultimate fantasy, she would have a personal sous chef to assist her cooking fresh meals for herself. “Each thing you go through, through life,” she says, “you deal with the challenge and try to figure out how you can do this healthy.” She is on food stamps and acknowledges that she can go to soup kitchens, but points out that “there’s not really the best food in those places.” The offerings are very different from her chosen diet, and she sees eating there as a choice between going hungry and risking illness. So while there is a support scaffolding to keep Geena from starving, it in some senses decreases her agency, as she does not feel like she can make genuine choices. The so-called supports do not support her health. Instead, she must work around them, even protect herself from them; she is, by necessity, a strong systems thinker. “You protect the kitchen,” she says. “You protect your stomach.”

“I eat everything I like”

I met Francine in the main room of the Dornsife Center in the middle of the day when it was quiet and no one else was around. She was polite and contained, engaging in less storytelling than many people I interviewed; instead, she answered each question completely and waited for the next. The interview was over quickly, and because it was one of my first, I was unsure if I should have asked her more follow-up questions or behaved differently to draw her out. We didn’t get the opportunity to do a follow-up interview. Francine did not finish the class due to a death in the family, and I did not hear from her when I

returned to Philadelphia and tried repeatedly to get in touch. I had thanked her at the beginning of our one meeting, and she said it was no problem to meet: she understood it was for a “school project.” I wondered if, in emphasizing how much participation would help me with my thesis, I had downplayed the research our team was doing as a whole. As we ended our meeting, she said, “I hope I was helpful to you?”

Family and life course have both influenced how Francine cooks. Her mother cooked meals every night, and she thinks about “balanced” dinner, having been taught to always have a vegetable, starch, and protein. When she left home, she more actively appreciated those home cooked meals; for a while, she ate out all the time, which has helped her to enjoy eating at home more (along with her professed “cheapness” and refusal to eat out unless someone else is picking up the bill). She wishes she had learned more, earlier:

Since I was young...there were a lot of people who cooked a lot of stuff in my family. Like my grandmother, great-grandmother, and I really regretted it – my great-grandmother used to make the best homemade biscuits and rolls. But she would always say...you need to come learn how to fix this stuff. I used to be like, okay, but you know, you being young and impatient, you want to learn but you don't want to go through all the steps, and I never really learned and I regretted it. She used to say, you gotta learn how to make this because if you don't, when I die the recipe gonna die with me. And that's what happened.

Instead, as a young mother, Francine taught herself to cook. Before that, her barriers to cooking like her mother were lack of equipment and money. Now, she says tiredness is the only significant thing that gets in her way. Her kids are grown, so she doesn't always have to cook, but, with her new fiancée, she carries

on her family's tradition of eating dinner together every night. He doesn't cook, but takes her out to eat several nights a week to reciprocate. She tries to make healthier meals to accommodate his health concerns. "See, I put a decent amount of weight on him since we been together," she says, smiling. "So he's trying to cut back." The role of cooking falls to Francine – although she is treated to purchased food in return – and, through that, the role of managing her partner's weight and health. She does not mention concerns about her own bodily health, or that the onus might fall instead on the self-control of the eater.

In her self-education, Francine says she got "pretty good with flavors" to the point that she can taste most things and mimic them in her cooking – like playing the piano by ear but never learning to read music. She is very curious about different cooking techniques, watching cooking shows on TV. She wanted to go to culinary school but never had the "opportunity or time" because she had to work (an interesting instance of a component of women's liberation – employment – getting in the way of greater desired agency in the kitchen). But she also has never used cookbooks to enhance her understanding of cooking. "I remember being young and trying to use a cookbook," she says. "I'm reading [it] and then they used a word I just didn't totally understand. I know you know this word. Fold. And I'm like, how do you do that!?" she laughs. "Since I didn't understand the terminology, I gave up on cookbooks, and I just kinda been winging it ever since." Here is a woman who knows far more about technique and ingredients than I – she put me to shame with a discussion of harisa – but

who knows less technical terminology, and so has felt excluded from a key educational tool for self-taught cooks.

Although I asked about many aspects of eating and cooking, Francine shared perhaps the most detail about her provisioning strategies. She shops at several different stores; seeks deals; buys in bulk; and breaks up large packages to re-freeze them in portioned bags. She calls herself “cheap” but refuses to buy anything off-brand: “I don’t buy a lot of generic stuff, I like the best of the best. But I’ve found when you buy the best of the best in bulk, you can get it for cheap.” Francine buys her produce at Philadelphia’s Reading Terminal Market because she wants it fresh and of quality, but she buys chicken in huge, presumably lower-quality, packages from more affordable grocery stores. She is a confident cook and thrifty shopper, but she buys bottled salad dressing, mentioning the Olive Garden brand sold at Walmart. “It’s a little on the expensive side, it’s more than I would normally pay for a salad dressing, but it’s pretty good, so. I let that one slide,” she says, laughing. In these differing priorities we can see how someone with limited income – and, by her own analysis, limited contact with the culinary world – negotiates the meaning of “quality” in food. Buying olive oil and vinegar would likely be cheaper and healthier, and a “foodie” aesthetic definitely places it above buying a shelf-stable bottle from Walmart; but quality of food does matter to Francine, even if her metric for quality looks different than it might for someone with a background in nutrition or food systems. Making vinaigrette from scratch, introduced on the

first day of the cooking course, was new to Francine, and she seemed open to the idea. She felt that the class would “improve” her, and anticipated that it would change how she cooks.

I perceived that Francine was probably the most skilled cook I interviewed. Annie, for example, can clearly prepare everything she wants to (rice, fish, vegetables), but Francine has more range. She is comfortable and also curious; she is perhaps less satisfied with her own abilities than Annie is, but that’s because she has greater aspirations for expanding her techniques and use of flavor. Agency here is self-referential; self-efficacy might be a moving target as a cook gains both greater skill and ambition.

Despite striving for more, Francine rates her food agency as 10 out of 10, and attributes it unhesitatingly to her use of coupons and sales. Her strategic shopping allows her to “eat everything she likes,” making up for limitations of income. At the same time, she is sure she is missing out on foods she hasn’t yet experienced. And she admits that if she had more money, she would eat “more expensive items” like chicken and seafood, or fish, which she would happily eat more of, but she is picky about its origin and is inhibited by its expense. Still, her mostly-unconstrained agency can be seen as a matter of life course. She has more equipment, kitchen space, and skill than she did as a young woman, and does not have the pressures of providing for children. She has what she needs to do what she wants. But I would argue that her life required her to develop that agency, to provide for her family with limited means, that she now enjoys.

Francine is proud of her skill with food, but not satisfied with it. I praised her shopping and freezing strategies as smart; she said “Well. I’ve been doing it a long time.” She, like the other women I spoke with, can consider each component of what we understand of food agency – skill, self-efficacy, structure – and map her own ability in relation to each. She does not play the victim, but looks for ways in which she can exert greater choice, either by finding the right coupon or attending a cooking class. Although she might be limited in some ways by knowledge or money, she is not ignorant of her circumstances. Francine knows what she is capable of and what she is not. I acknowledged that she’s more experienced than many of the other students in the class, observing, “You’re a very comfortable cook.” She replied, “Yeah, I am. But I’m not a professional chef.”

“I need to feed myself; if I don’t, no one else is going to do it for me”

Evangeline is a twenty-year-old Drexel University student from outside Philadelphia. Thin and dark-skinned, with long braids and fashionable glasses, she struck me as graceful and precise. She is quiet but curious; the audio recording barely picked up some of her words, but she answered all my questions carefully, and then asked some of her own. (Had I written an undergraduate thesis? Did I have advice for how to choose and complete a project?) She is curious about food, too. In the focus group she and another student – a more experienced cook – brainstormed about homemade pasta and pizza, which Evangeline is interested in attempting. In that second meeting, with

two peers to converse with, her little frame let loose a few belly laughs as she made many frank observations about both her limitations around shopping and cooking, and also the ways in which her options have expanded after taking the cooking course and getting a second job and thus more money to spend.

Evangeline grew up with a mother from the Caribbean and a father from the U.S.; the food that she ate as a child, and eats now, reflects this fusion. She grew up eating rice and beans and chicken every day – she ate “every type of bean.” She doesn’t understand people that “don’t like” beans, as to her, they are so different, and a daily food. But she doesn’t talk about cooking this kind of food herself. Her favorite dinner is French fries, cheesesteak, and a side of mac and cheese. (To be fair, after taking the healthy cooking course, she said too much junk food now makes her feel nauseated.) She says she eats differently than she did as a child, and it’s clear from further discussion that she eats more mainstream American food. But the way that she articulates this difference is in relation to the cook, rather than the cuisine. “My mom’s food had a specific taste to it that I don’t think I’ll be able to make myself,” she says. This echoes, in reverse, a mother-daughter tension elaborated in David Sutton’s ethnography *Secrets from the Greek Kitchen*, in which one mother was never satisfied with her daughter’s cooking because it was never her (the mother’s) own. Evangeline feels every cook has her own style, and could always tell the difference between her mother’s, grandmother’s, and father’s cooking, even if it was the same dish.

Life course so clearly affects Evangeline's current experience of cooking and of food agency. She has just left home for the first time, and although her parents occasionally drive over an hour to bring her food, for the most part, she's on her own. When we first spoke, she lived in a dorm with a kitchenette and no stove—she cooked on a burner in her room, and carted dishes back and forth to the sink for washing. When we spoke again, she had moved into an apartment. The kitchen is simple, but at least has an oven and two stovetops, which she says allows her to do “pretty much anything.” She says, of her recent transitions:

When I got to college, I didn't really cook, like I used to rely on buying food, and buying food every day is really expensive. So I was trying to start cooking, and, like, I can cook little things, like I know how to make rice, things like that, but I don't want to rely on freezer food anymore. I started making—like, using ground beef and making meatballs and things like that, slowly I'm starting to cook for myself.

Evangeline's life course intersects with income to affect her in ways it doesn't necessarily affect her peers. She works several jobs in addition to being a full-time student. She takes 18 credits every semester (the most I ever took as an undergraduate, and an intense workload) because, I assumed, she couldn't afford to spend any more time at school than was necessary. Energy—the energy required to cook a meal at the end of a long day—is a theme that arises with Evangeline as it did with the older women I interviewed, and it too intersects with income. Evangeline doesn't always have the energy to cook dinner. She works from 8 a.m. to 6 p.m., with classes in between, and no days off; she often doesn't start cooking until 10 p.m. because she needs to rest and wait for

ingredients to defrost. Although Evangeline discusses many issues related to meal preparation, including ingredients and personal taste (she loves cheesy, starchy foods), her most important consideration in meal planning is “how much I feel like doing it” after a taxing day of school and work. And she admits that she is not great at planning ahead. If she gets home too late or too tired, she eats leftovers or a bagel.

Environment and income also influence Evangeline, as they do with the older women. She travels to shop – to Costco and Walmart particularly – but what she buys depends both on how much money she has to spend, and how much she can physically carry, as she has to take a shuttle and walk a considerable distance. She buys in bulk, but the physical process of getting groceries home limits this strategy. Her physical environment and personal circumstances (for example, not owning a car) impinge on the ways in which she might otherwise enact more agency.

In our first conversation, Evangeline gave herself a 4 out of 10 in terms of agency, saying “money is always going to constrain me,” although she qualified this by saying it might not when she has a degree and a full-time job. In the follow-up focus group, she rated herself a 5. Both times, she identified money as the primary reason for these scores. In November, she told us that she used to spend only \$25 per month on groceries. With a second job, she now spends \$50 every two to three weeks; at least a 200% increase. “Now I spend money on like, almost everything I wanna eat...I can afford the bigger quantities so I don’t need

to constantly buy the same thing over and over...and then I could spend that money on something else that I wanted to buy...so it kinda works out. I have more freedom than before.” Despite her enthusiasm about skill, this freedom came from increased income. After this reflection, she amended her score to a 6 or 7. She clearly articulates how poverty can make things more expensive by limiting the strategies for saving time and money. (She also doesn’t have all the kitchen tools she needs, like spatulas and knives, to cook effectively – to save money.) But, interestingly, when I asked if she could change one thing that would help her cook or eat the way she wants, Evangeline didn’t say money. This could be because she doesn’t see that as something that could increase. Or perhaps because she expects it to change eventually. Instead, she says, “The skill level I have.”

Evangeline’s awareness of the expense of food, combined with her desire to eat “better” food, fuels her curiosity about learning to cook. She is constrained in terms of kitchen space and money, but also pushed to increase her skill because she lives away from home and has neither the means nor the interest in relying exclusively on prepared meals. Learning to cook, especially in the dorms, is a struggle. Before taking the cooking class, Evangeline relied primarily on memories of watching her mother cook, and on trial and error, to guide her cooking. She characterizes her process as “slow.” And she says of her classmates, “I can see why people don’t do it,” that is, try to cook in a dorm setting so ill-equipped for the activity. The majority of her peers, she says, do not know how

to cook. She is like them in her lack of skill, but perhaps unique in her drive to increase that skill.

When I ask what motivates her to cook for herself, she replies, “The fact that I’m living on my own and I need to feed myself. If I don’t, no one else is gonna do it for me.” This is true, but not the whole story. Many other students rely on others (cafeteria workers, food truck cooks) to feed them. And Evangeline is excited about cooking; it is not always just a chore. She enjoys cooking for her roommate and friends, enjoys the positive feedback: even when she shares something like grilled cheese, which isn’t “special,” she says “their opinion makes me happier.” To her, food *means* something when it’s attached to other people, rather than just feeding herself.

While several of the older women seemed pleased with the cooking class – Anjanette especially was so enthusiastic about what she learned – it felt different to listen to Evangeline. Like the other two students in the focus group, her world seemed opened by the experience. Although it could be my own bias, this kind of excitement feels especially meaningful in younger participants who are just starting to form life habits, and have decades of practice and growth ahead of them. Like Annie and Anjanette and Francine, she expected to be changed by the class, by the exposure to new dishes and techniques. To my eyes, she *was* changed when I returned to Philadelphia. Part of this change was obvious in what she said: the class taught her “how to be healthy,” to cut down on butter and cheese and to use starch alternatives; she eats better “since I took

that class. I used to just order food every day but now I don't trust outside food any more, I eat what *I* cook now"; she lost "a lot of weight," the 20 pounds she gained as a freshman eating Chick-fil-A and other fast food outlets that accepted meal plan dollars; she has started experimenting with new recipes for variety and substituting ingredients for healthier dishes. (She's not an extremist, though: fried food is still "the way to my heart.") And part of the change was in *how* she shared these revelations. She was eager to talk – even in a group setting – she was lit up, she was both more confident and also still curious to learn. Although the term feels trite, she seemed *empowered*. She increased her skill level, as she had wanted, and saw it as building on what her mother and grandmother had taught her. She now uses new recipes, beyond the "bare minimum" of macaroni and cheese, rice, chicken, and pasta; her skills are a platform from which she can continue to self-teach. Planning still gets in her way – sometimes she forgets to defrost meat and has to adjust her dinner menu – but she herself identifies this as something to work on, which is the first step to improving.

When I think about my interviews with Annie, or Francine, who both learned to cook when they moved away from home, I wonder if Evangeline is on a similar path; if in several decades she will be an accomplished and engaged home cook. Or perhaps an even more enabled one: she will graduate college, plans on a middle-class career (in criminal forensics); if she is successful, she will have more money and opportunity than the older women living in Philadelphia. If time and money weren't objects, she says she would make herself "healthier

food,” which she describes as being organic, non-GMO, and fresh. She also imagines taking more culinary classes after graduating and being employed – that is, when she can afford more cooking education, she will pursue it for fun – as Francine has always wanted to do, and never been able.

I felt protective of Evangeline, who has so many demands on her time and energy, and who gracefully provides for herself while many of her peers enjoy much more financial support. While I would not wish that kind of stress on any young person, I do wonder how large a part it plays in her development as a cook. She looks forward to more money in the future; at present, she has extra incentive to be as smart, strategic, and involved in food preparation as the older women in this study, who continue to be constrained by their income and environment, and who find ways to take care of themselves anyway. Is there a recipe, a trajectory, for developing agency? From the people I spoke to, cooking skill seemed to come from a combination of interest and necessity, although I cannot say in what proportions. In Evangeline’s case, perhaps to be the most empowered cook possible, she needs the social and financial imperative of shopping and cooking for herself; increased proficiency from formal education; and, eventually, the means to purchase the ingredients she deems healthiest and most desirable. In this frame, her current barriers can be seen as fostering personal power through skill – power that can be best harnessed if she ultimately overcomes those barriers.

“I gotta have what I wanna have”

Jamar was the anomaly in my participant group, in several ways. He was the only male among the community residents, and one of only three men total. In his twenties, he is much younger than the middle-aged women I interviewed, and was the only other young community member in the class, other than his fiancée Tisha. (Interviewing her allowed me to compare how they each characterized the other's cooking, as well as their own.) Of all the people I spoke to, Jamar seemed the least genuinely interested in cooking. Jamar admitted that he only cooks when no one else is available to cook for him, and did not express any particular enthusiasm for it. He is an involved and picky eater, but is not inspired to make the foods he prefers to eat.

Most of Jamar's meals are cooked by the women in his house – his mother, grandmother, older sister, aunt, or fiancée. He lives at home. When he “has a taste” for something like spaghetti, he asks his mother or sister to make it; he wants spaghetti daily but says he can't have it, which suggests that he doesn't have either the skill, confidence, or drive to make it for himself when someone else doesn't. In class and in our interview, Jamar identified his primary reason for learning to cook was so he could make healthier dishes for his grandmother, who is diabetic. But from his descriptions of cooking and eating at home, that caregiving relationship has not yet switched direction. Although this was the fourth cooking course he's taken through the Dornsife Center, he doesn't seem to have changed his daily practice.

When Jamar does cook, he calls it “lower stuff,” like eggs and noodles – dishes that are relatively simple to prepare. He primarily makes breakfast foods, regardless of the time of day: bacon, pancakes, “cheese eggs,” sausage, grits. Despite his acknowledged limitations, for him the act of cooking is a point of pride and performance: “My specialty makin’ now is breakfast. Is the omelet. My girlfriend, my sister, and my cousin love my omelet...some people don’t get it right, they mess up.” He describes making sweet potato pie, and although he tells me how his grandmother walked him through each step of the process, he also says, “Everybody in my house loved it. They ask me, who made it? I did.”

When men cook, it is performative, something out of the ordinary; this is a pattern explored in ethnographies of cooking from David Sutton to Alice Julier. This truism is borne out by Jamar’s explanations of his cooking patterns. In one breath, he attributes the knowledge of making pie to his grandmother, and in the next, freely admit that he took credit for the action of preparation. Although I do not have a deep enough knowledge of Jamar’s family dynamics to know, I do wonder about the nature of the praise he receives for his omelets and pies. Is it entirely genuine? A way of encouraging him to cook more often? Or merely expedient to getting him in and then out of the kitchen? Tisha, Jamar’s then-girlfriend and now wife, also participated in the class and in my interviews. She is trained in culinary arts, and was dismissive – even derisive – of Jamar’s food efforts. “Yeah, he goes to cooking classes,” she says, “but one time...he actually made me something to eat. He made me breakfast. He said to me, he made the

whole breakfast, he made the grits, bacon, eggs. And come to find out, he only made the eggs." She goes on to describe him under-cooking fish. "And then he want to look professional, wear my chef pants. I just let him wear 'em. I'll let you think you're a chef." Tisha supported Jamar learning to cook, to see it as something fun. Now, she has effectively given up on him doing more than attending classes, where she says he leaves her alone to do the work while he eats ingredients. There are surely some relationship dynamics at play here, but Tisha's apparent decision that it is easier to let Jamar feel "professional" than actually expect him to be might also be the response of his other female family members. When his family asks him to cook, he says, "it just be lower stuff they be asking me to make. Not big stuff like a whole cooked meal." When I first thought about Jamar's situation, I noted how much he relies on the women in his family to provide for him. Eventually, I began to wonder, too: how much are those women limiting growth in his agency? Are they keeping him back, or just acknowledging the reality that food will get made only if they make it?

On the other hand, Jamar says, "if somebody make something and...it's not quite good or, like, not the taste I want, I'm gonna cook it til I get that taste I want." Whereas most people I interviewed focused either on nutrition or cost and convenience as the driving forces of their diet choices, Jamar's eating is driven by this pursuit of taste. When he gets a craving for something, it will stay with him for days until he asks his mom to make it. For breakfast, he eats pancakes, eggs, or bacon; lunch, cheesesteak or a sandwich from a store; dinner,

spaghetti or fish. He likes pork ribs, but beef ribs are “nasty.” (This diet bears little resemblance to what the older community residents say they eat, but is similar to what Evangeline says she ate after leaving home and before taking the cooking course.) Jamar attempted to make a healthier version of sweet potato pie with ricotta cheese, but didn’t like it because it didn’t taste right. This particularity of taste is not only a driving force in his food choices, it also seems to be a barrier to making choices that he deems to be healthier. He talks about healthy food as something that he aspires to in the abstract, rather than actual dishes he eats or thinks about eating; he speaks as if he knows he *should* care about “healthy food,” but has no real connection to it. It has no specific place in his life.

Jamar summarizes how agency can shift daily, depending on energy and attitude: when he’s cooking, “sometimes I be feelin’ tired, sometimes feelin’ ok...it depends on if I’m happy...if I’m not in the mood, then I’m not gon’ cook.” To him, the most important part of planning a meal is having all the ingredients; in other words, the ability to successfully cook it. This focus contrasts that of other cooks, who name nutrition, satisfaction, or balance as their primary goal. Is Jamar’s capacity more easily fulfilled because his goals are more modest? In our first talk, he rated his agency as 5 out of 10, saying he gets tired of eating “whatever I want to eat” and would need to expand his gastronomic horizons to have a higher level. In our second talk, he chose 8 out of 10, saying “I gotta have what I wanna have.” This conclusion might be a misunderstanding of what I was

asking, but his emphasis, on agency as being the ability to “get” whatever he wants, is in line with how he approaches food generally. He’d like to be able to make homemade spaghetti sauce and lasagna, but beyond that does not express many cooking aspirations. His summary of his barriers – “either I don’t have the money for it, or nobody cookin’” – is a succinct articulation of how my current understanding of agency. You wield food agency either from money or from skill (or both).

Jamar raises interesting questions in how we understand food agency. From the perspective of the theory, Jamar is not a particularly strong agent. He does not have much interest or skill in cooking, and neither much money to make up for it. But he feels relatively empowered. In response to what he might change, he does not express a desire to cook more for himself. Instead, he says that if he had someone to always cook for himself, that might help him “stop eatin’ breakfast all day long,” but he seems almost to have full-time cooking staff. Compare him with Geena, who is highly informed about nutrition and is a skilled and interested cook, but doesn’t have a kitchen and has no one helping her provide for herself. Who has more agency, between the two of them? I would argue Jamar, although his is almost entirely outsourced to the women in his family and to food laborers outside his home, so is this true agency? Perhaps agency is ultimately dependent on possessing enough resources – monetary or even familial – for creating circumstances conducive to action. Contemporary women are increasingly able to outsource foodwork, as Geena does with Whole

Foods. In this case, Jamar, a man, is even *more* able to outsource that work to the women in his family.

“Why is it so hard?”

Kelly is a bubbly, gently sarcastic white woman in her early twenties. She’s thin and wears fashionable black-rimmed glasses. We immediately shared good rapport, as peers, although I have no idea if she usually cracks so many jokes or if she was trying to impress me, an older student also studying food. She transferred to Drexel from community college to study nutrition, and even though she seems a competent and engaged student, she professes that she just wants to finish school and work, perhaps in quality control for a food company. She is in many ways a Millennial foodie, eating seasonally and prioritizing organic, wild-caught, and cage-free labeled foods. She can joke about this role (she calls her favorite café “hipster, and parodied her favorite dessert as “organic dark chocolate...handpicked by Guatemalan virgins”). But she’s earnest in her use of apps like Pinterest and Yummly to find recipes. At the same time, she makes clear that she’s not “one of those girls” who posts pictures of everything she eats on social media. Her relationship to food seems an important positioning in her identity – and one that she is still figuring out.

Kelly describes her cooking as “advanced novice.” She taught herself to cook through “trial and error...if it’s not brown then turn it brown. I guess the number one rule of cooking,” she laughs. Like so many others, she learned after moving out from her parents’ house, through YouTube videos and “actually

[asking] my mom for advice and [listening]!” The most important outcome of her cooking is a tie between taste and calorie count. She says she needs to “take care of” the “little fat” she gained when she transferred to Drexel.

I have taught many nutrition majors in college, and in my experience, Kelly represents a common pattern of the discipline: using her studies as a framework for self-discipline around food. She counts the miles she walks to the grocery store as justification for not needing to go to the gym that day; of Trader Joe’s, she says, it sells “really great fiber-full grain bread that’s like 20% fiber in one slice and I’m like nooo, I’m going to prevent colon cancer. That’s what I tell myself.” Her roommate, who hails from Cambodia and a different culinary tradition, doesn’t eat dairy or bread, which Kelly cannot relate to. “The thing is,” she tells me, “carbs and cheese are my life.” In the focus group, she explained how to make homemade pizza dough to Evangeline, and when I mentioned that you can make a big batch and freeze most of it, she laughed and says that she just makes a ton of pizza and eats it all. It’s difficult to know how much of her professed indulgence actually happens. I know from my own life that it is easy to play up gluttony as a sort of nutritional confession, positioning oneself so that it is socially acceptable to not look perfect or eat perfectly. Her shifting characterization of her own eating habits – between a healthy dinner of salmon and rice versus over-eating of carbs and all Italian foods – perhaps reflects different ideas of what “success” means in feeding herself. Is it about health? Pleasure? Does the metric change depending on the day or social circumstance?

Here, knowledge of cooking and of nutrition is not straightforward, as Kelly draws on different pieces of it depending on the meal she's making and the goal associated with it.

When Evangeline announced that, "fried food is the way to my heart," Kelly rejoined, "the way to stop your heart." It is the same push-pull tension between taste and health that I saw within Anjanette. Much of this tension appears to be a reaction to the food culture in which Kelly grew up. She tells me that she ate "terrible" as a kid: PopTarts, sugary cereal. And although her tastes have changed – she now thinks PopTarts taste like cardboard – she can't keep junk food in the house because she will eat whatever is there. She began taking health-related classes in community college, and it sounds as if she went through a personal transition around food and health, a transition I am always on the lookout for because I have heard so many stories, suggesting it happens for many people. And her changed tastes are a sort of positive constraint that increases her agency; the main driver for her to cook is "hunger...and a little bit of pickiness. I hate microwave meals with a burning passion."

Money, too, fuels her fire to cook, as it does with nearly everyone I spoke to. "I'm too poor to go out," Kelly says. But she does have the means to *cook*, she points out, in that she has her own kitchen and some basic skills. She shops the sales, which means she might eat an inordinate amount of sweet potatoes for a few weeks because they happen to be \$0.69 per pound.

Kelly articulates what I personally believe, and what several other research participants expressed, about the food system. Namely, that it is almost impossibly hard to figure out. Even if you know what and how to eat, can you find the information to buy food in alignment with those values? “I’ve been having a lot of trouble recently,” she tells me. “I try to find – this might make me sound super pretentious, but I just wanna find eggs from happy chickens.” Her standards for quality and care of food is unmet by the food system – she literally cannot find satisfactory eggs – and she is aware of the privilege inherent in wanting a higher standard met. This is a similar conversation I had with the women from Mantua, who had similar goals but who did not apologize for them. Those conversations did not include standards about animal care, which might feel irrelevant or out of reach when even industrial organic food is too expensive. Still, Kelly’s preferences may have as much to do with nutrition as humaneness. In explaining why will only buy wild-caught salmon, she points out that “the difference [between it and farmed] in nutritive value is huge. You can notice just by looking at it.”

“Why is it so hard?” Kelly asks me, about finding things she can feel good about eating. “The food industry is not neat. It’s very messy and we’re being lied to all the time.” While her tone, at least with me, is more irreverent than angry, she’s clearly disappointed at the limitation of her education and discipline to translate into a desirable diet. Like Geena, she reads food labels and is unimpressed with the FDA’s requirements of them. Like Geena and Annie, she

sees farming as the only way to really get the food she wants. The food system is failing these women; it cannot meet the demands of its consumers, who say that if they could, they would exit the system.

Planning meals appears to be Kelly's primary strategy for negotiating this inner tension. In our first interview, she reported eating chicken nearly every day because "it's a really good source of lean protein," and she pairs it with something like potatoes, quinoa, or brown rice and beans. Planning meals is for her about "completeness" – a protein, vegetable, and starch. She buys chicken in bulk and breaks it down into four-ounce portions that can be defrosted in the morning for dinner that evening. She packs lunch to avoid eating the inevitably unhealthy food at Starbucks, where she works, even though that meal would be free. She organizes everything according to the culinary tradition of "mise en place" (everything in its place). This applies to her daily schedule as much as to gathering all her makeup before applying it in the morning. It's about "mise-ing out my entire life," she says, joking that she wants to get a "Remember Your Mise en Place" tattoo.

If Kelly is building identity around her relationship to food, she is also building community and long-term life skills. She cooks for her boyfriend, and for her friends. "I just want people to tell me I'm good at cooking," she laughs. She takes culinary classes in her free time. She wants a "foundation for healthy cooking" because she sees it as something she'll need to do for the rest of her life. In the same way that Anjanette wants "exposure" and Annie wants "technique",

Kelly wants to “broaden” what she already does in the kitchen. She wants to get out of her routines and learn new ways to prepare fresh ingredients. When we first spoke, she expressed a hope that the cooking class would change her. This openness seems crucial for such a change to occur. The women who were less satisfied with the class, after it was complete, were the same ones who showed less interest in actually changing their practices. Even after the class was over, Kelly rated her food agency as six out of ten because she “would like to cook more things and to be better.” From the outside, she seems to have reached some equilibrium in the tension between what she craves and what she knows she should eat instead. Part of the compromise is around cooking. “Cooking is great,” Kelly tells me, “because you’re rewarded with food.”

Conclusion

What emerges about food agency in these narrations? We have Anjanette, excited to learn more technique and eat healthier foods; Annie, growing and cooking most of her own food; Geena, making the best of a difficult situation by eating at Whole Foods; Francine, already skilled but still curious; Evangeline, figuring out how to shop, cook, and eat away from home; Jamar, eating what he likes and enjoying his family’s cooking; and Kelly, using nutrition to navigate the adult waters of choosing foods.

Speaking with mostly women highlighted the differences between their motivations – to take care of their own food needs and, in the case of Francine, those of their families – and those of Jamar, who was motivated primarily by his

own desires. The issue of gender is omnipresent in questions of food work, but in these narrations, it takes a backseat to the issue of socioeconomic class. Our present, industrialized food system allows women some measure of freedom in deciding how much they engage with daily meal preparation, and these stories illuminate that other layer: what helps and hinders them, at their particular level of engagement. More work is needed to fully explore issues of gender, intersectionality, and our evolving understanding of food agency.

I chose to write about these seven people, of the thirteen I spoke to in-depth, because of their clear stories and examples of food agency. These seven were also the participants I was able to interview twice (with the exception of Francine), gathering more detail and perspective on how their practices changed, or didn't, after taking the cooking class.⁷ Each person enacts agency under different circumstances, and also shares certain approaches or challenges with the others. Even in a small group – where everyone lives in the same city; lives either in Mantua or attends Drexel University; is either in their early twenties or in their fifties; has self-selected for an interest in healthy cooking education – there are so many permutations of circumstance and strategy, of skill and constraint. The constant, more or less, is aspiration: an interest in learning more, doing better.

⁷ Of the participants in both initial and follow-up meetings, only two are excluded from this narrative. One was an exchange student, whose background would have added an international perspective beyond the scope of this project. The second participant's interviews were not sufficiently lucid to draw conclusions about her food practices.

Another way to frame this common theme of “aspiration” is “struggle.” The whole group tries to feed themselves intentionally and healthfully, with different levels of success. I didn’t know, coming in as a food systems researcher and assuming that was *my* lens, how much people see themselves as part of a larger food environment. I notice a high level of self-awareness about what they were up against; even people who see themselves as strong agents are very clear about exactly what they are resisting through their agency. These articulations, of being part of a larger whole, often show how societal structures making things harder, rather than easier.

Why worry about agency in the first place? To me, food agency is an issue of social justice. Some people are more able to feed themselves satisfactorily, in a way that feels personally and culturally appropriate. That others are prohibited from a similar freedom of choice is injustice. For our research team, one of the goals is simply to understand what is happening in people’s food lives. But that understanding has serious implications for food systems solutions, because how can we solve issues of access, or inequality, or health, if we don’t know what is actually happening in people’s lives? And if some folks have low levels of personal agency, how can we support the expansion of that agency? In other words: what is the recipe for developing food agency so that people can enact their highest potential within the food system? The answer is likely slightly different for everyone, and perhaps best posed to the people themselves. For the

people I spoke to in Philadelphia, some of the answers seem to be: skill, technique, information. Things they can use to decide for themselves.

CHAPTER FIVE
THE SCALE AND THE STORY
A QUALITATIVE EXPLORATION OF THE FOOD AGENCY SCALE

Introduction

First in Vermont, and now in Pennsylvania, our research team has been developing a theory of food agency. We developed three facets simultaneously: a theory, a scale to measure food agency numerically, and a cooking pedagogy to increase agency through food preparation skills. The theory illuminates what contributes to, and limits, a person's capacity to procure and prepare food. The food agency scale measures that capacity numerically. The pedagogy is designed to develop the physical, social, and cognitive abilities required to cook food for oneself and others.

The purpose of my study is to investigate the food agency theory, scale, and pedagogy in a completely different environment than the one in which they were developed. Research was conducted to see how well the theory holds up in Philadelphia in comparison to Vermont, and if its tools need to be altered to reflect a greater range of experience. In analyzing the resulting data, this paper endeavors to answer these research questions: Does the scale reflect the experiences of low-income participants of color? Does it demonstrate a relationship between race, socioeconomic status (SES), and agency?

The primary part of the paper is a side-by-side analysis of components of the quantitative scale, compared with agency-related themes that arose from the

qualitative data. These themes are broken down into more specific categories that mimic scale items, analyzed, and finally combined for a full picture of the areas in which the food agency scale already reflects the experiences of participants, and the areas in which experiences are not represented by the scale. Next, there is a discussion of preliminary quantitative results about the relationship between race, SES, and agency. A brief conclusion in this paper will be followed by a more extensive discussion and conclusion for the thesis as a whole.

It is important to note that “food agency” is used in two different ways in this paper. One is the numeric measure of the scale. The other is a subjective notion of agency from speaking with participants and getting an impression for how well they are able to achieve their own goals for cooking and eating. The purpose of using these two understandings is to see where they overlap and where they differ, with the end of strengthening our overarching theory of what composes food agency. The following analysis demonstrates that while the food agency scale contains ample measures of cooking, it does not fully capture influences on food practices described by participants, such as immediate environment or ability to procure groceries, and therefore might not be a measure of comprehensive food agency in all its facets. Furthermore, although participants report barriers to food agency, such as income, they also feel a high level of agency due to the skills they have developed to resist those barriers. Food agency emerges as a multi-faceted concept that extends beyond cooking, in

which lack of agency due to external factors can encourage greater agency from acquired skills and confidence.

Methods

This study is the third phase of an ongoing multi-phase study (see Table 1 – bolded). Development of the food agency scale began before this study and continued simultaneous with it. First, the research team held three focus groups in Burlington, Vermont, to create a list of potential elements of food agency. Participants were Caucasian and residents of Chittenden County, Vermont. They were asked questions about the planning, provisioning, preparation, and clean up of meals they made, as well as the family social dynamics around those meals. A team of experts evaluated the resulting list for face validity. The revised survey was administered to a development sample, and, “using factor-analytic approaches, subscales were identified, individual items were retained or eliminated, and a final scale was proposed. The same pool of items was then administered to a validation sample so that the proposed scale could be evaluated for configural invariance. Finally, the two samples were pooled so that the relationships between scale scores and demographic and confirmational variables could be explored” (Lahne & Trubek, n.d.).

Table 4

Developing a Theory of Food Agency: A Multi-Phase Study

Study Phase	Timeline	Methods	Sample	Product	Contribution to Future Work
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Phase I: qualitative data collection	18 months (2013-15)	video ethnography, participant observation	home cooks (n=27) and UVM cooking students, VT (n=8)	graduate thesis on defining food agency and its components in cooking	determination of what to measure
Phase II: quantitative data collection	24 months (2014-16)	focus groups	residents of greater Burlington, VT (n=18)	qualitative data on supports and barriers to agency; questions developed and refined	generate item pool; measurement format and expert review
Phase II: quantitative testing of scale beta version		survey administered (web-based)	participants recruited through listservs in VT and PA (n=445)	database of completed surveys	administer to sample
Phase II: survey refinement		statistical validation	participants recruited nationally through Mechanical Turk (n=498)	Validated scale ready for widespread testing	evaluate items and organize by thematic grouping
Phase III: qualitative follow-up	12 months (2015-16)	participant observations, interviews, survey data (all participants); focus group (some Drexel students, n=3)	Drexel University students (n=8) and Mantua community residents (n=8)	mixed-methods thesis on efficacy of theory and pedagogy with low-income participants of color, recommendation for theory development	qualitative triangulation
Phase IV: intervention	TBD	pre- and post-survey collection and participant observation	students in cooking intervention in cities TBD	pilot intervention, statistical hypothesis tests, and refinement of pedagogy	further validation and hypothesis testing

This qualitative follow-up began as factor analysis was taking place on the scale. Open-ended interviews were conducted during the first month of the class (all class members agreed to participate; due to scheduling, 14 of 16 took part).

Follow-up interviews and a focus group took place three months after class had ended (all 14 previously interviewed participants were invited, and 9 took part). The second version of the food agency scale, condensed and refined from the first version using scale validation methods, was administered to participants in paper form about six weeks into the class (as soon as this version was available, in July, after the first interviews). In lieu of a follow-up interview, one focus group was conducted for all available Drexel students, who had been previously interviewed, in order to get group-inspired feedback and to have a manageable amount of follow-up data. Both the interviews and focus group were audio recorded and transcribed.

An iterative process was used to develop similar but slightly divergent protocols for interviews, follow-up interviews, and focus groups (see Appendix B). To develop the first interview protocol, I examined the food agency scale (see Appendices C and D). Many of the scale's questions were intentionally redundant for statistical reasons, following three sub-scales, organized as "skill/structural support," "self-efficacy," and "barriers." (They have since been re-organized into Self-Efficacy, Attitude, and Structure.) I condensed the overarching themes – which can be roughly translated into what supports cooking, what inhibits cooking, what are actual cooking practices – into individual questions in order to triangulate the survey instrument with narrative data. The focus on supports and barriers were intended to bring in the previously literature on structural factors of agency. I also added some questions

for context (e.g. experience with cooking, childhood memories of cooking). Follow-up interviews repeated many of these questions and included new ones reflecting on the experience and efficacy of the cooking class, and whether participants identified any changes in their cooking practices as a result. The focus group protocol was virtually the same on paper, but I asked follow-up questions differently to accommodate the group and make sure everyone participated equally. All participants of the follow-up interviews and focus groups filled out the scale for a second time, again to track any changes in agency. Interviews were conducted at the Dornsife Center or on Drexel campus, for community members and university students respectively.

Analysis for the interviews relied on qualitative coding, using the qualitative analysis software package ATLAS.ti 7. First, I conducted a literature review to explore the existing research on constructs from the food agency scale and on the specific research population. I developed an extensive list of codes based on this literature review, on the constructs of the scale, and on a deep reading of four of the first-round interviews (two community residents and two Drexel students). From this list, I shortened the list to emergent groupings of codes, or themes. Thus, I employed a hybrid of thematically informed coding (Dowding, 2013) and grounded theory. Grounded theory coding uses inductive analysis to allow patterns, themes, and categories to emerge naturally from the data, rather than be imposed on it. Adapting grounded theory by using “sensitizing concepts” permits the literature to act as a starting point for analysis,

a gentle guide to how observed phenomena fit into conceptual categories (G. A. Bowen, 2006). This strategy allowed me to focus my coding, draw connections to existing work, and explore emergent themes that food agency theory may have overlooked.

To integrate the interview data with the scale, I reviewed major qualitative themes, broke them down into more specific component parts, and then compared them to current scale items in order to determine whether those themes are reflected in the scale. Qualitative data from community residents of Mantua from and Drexel students is not differentiated, partly for ease of comparison to the scale, and also because the intent was to explore food agency with low-income participants of color, and most Drexel students qualify as such.

Demographics of Participants

This study's research question is about the relationship between race, socioeconomic status, and food agency. Participants were recruited specifically to include the perspectives of a more racially and economically diverse group (for interviews, and Figures 1-6, n=12). Partly due to the nature of online recruiting, respondents in the development and validation samples for the food agency scale are not racially or economically representative, compared with the United States as a whole (see Figures 1 through 6).

Furthermore, the focus groups, whose qualitative data led to the scale items that were then tested with those development and validation groups, were almost entirely white. Although demographic data was not recorded for these

groups – which is why there is no figure for that sample – visual estimates suggests that all but a couple participants were Caucasian, and all living in Chittenden County, Vermont, where 91 percent of residents are white (as of the 2010 census). Focus group participants also seemed (again, subjectively) to either be middle-aged and middle-class, or university students; the resulting data did not include information about long-term financial barriers to accessing food.

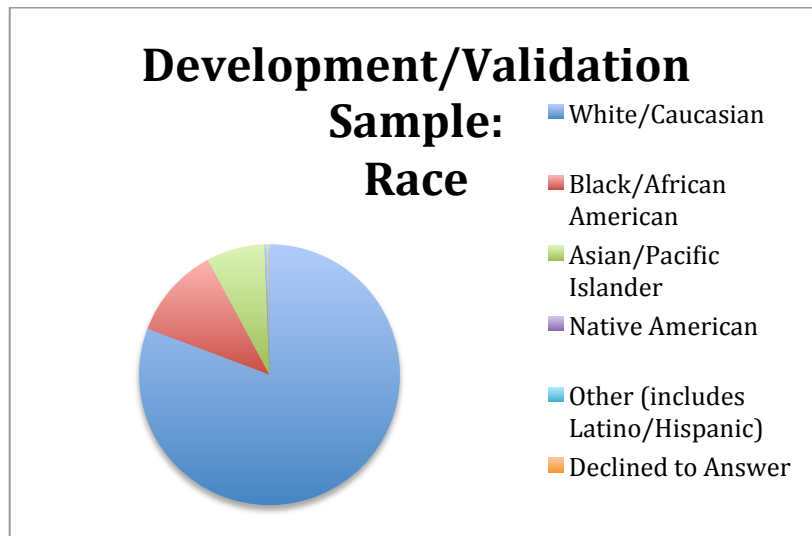


Figure 1: *Racial Demographics of Participants in Scale Development and Validation Samples*

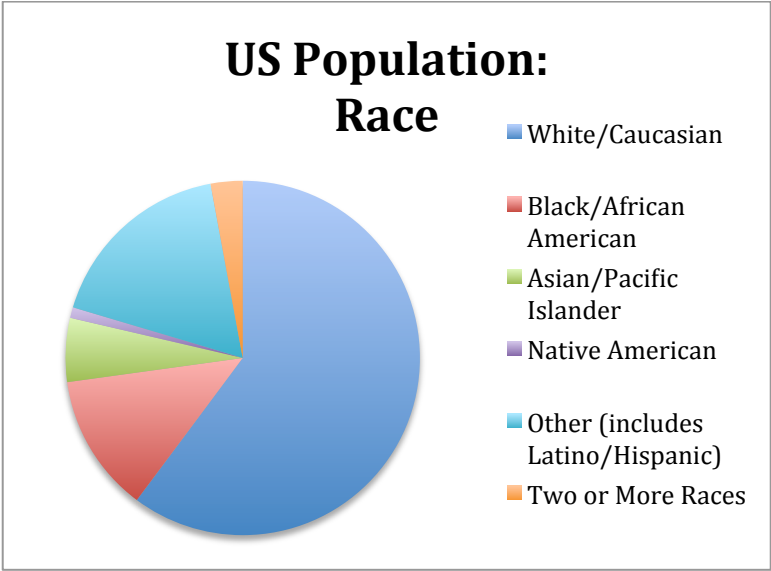


Figure 2: Racial Demographics of Residents of the United States⁸

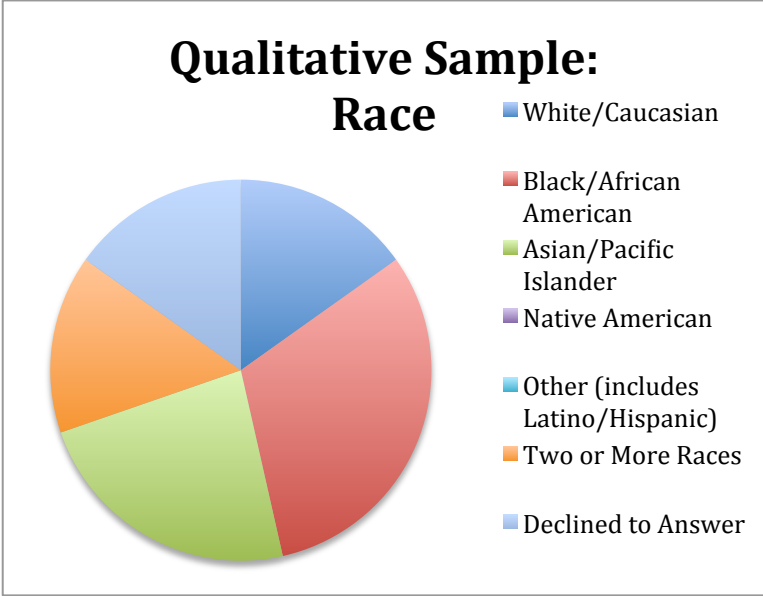


Figure 3: Racial Demographics of Participants from Philadelphia Study

⁸ Data from United States Census Bureau (“Population estimates, July 1, 2015, (V2015),” n.d.)

Scale development and validation samples, together, were overwhelmingly white (the development sample, which is combined here with the validation sample for simplicity, was even more so, with 84 percent of respondents identifying as Caucasian). While the US population is still majority white, this study aimed to include more non-white voices – here represented mostly by Black and Asian Americans. Native American and Hispanic participants are still under-represented in both the quantitative and qualitative samples.

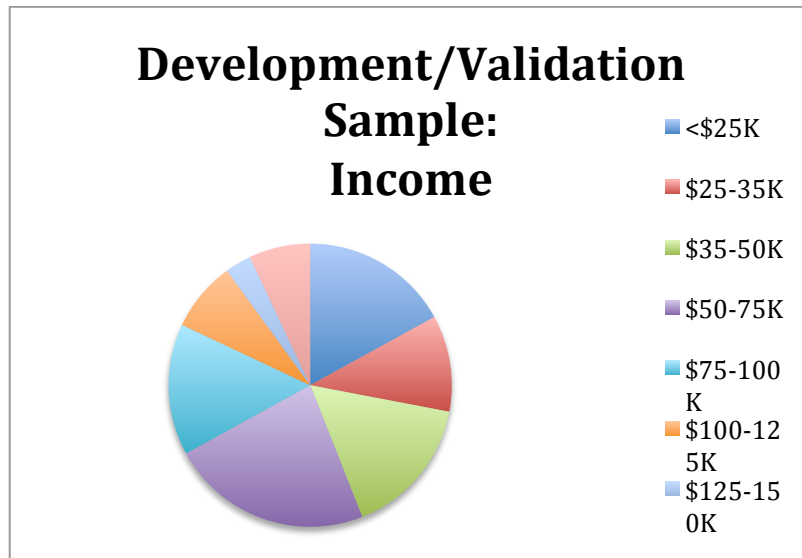


Figure 4: Annual Income of Participants in Scale Development and Validation Samples

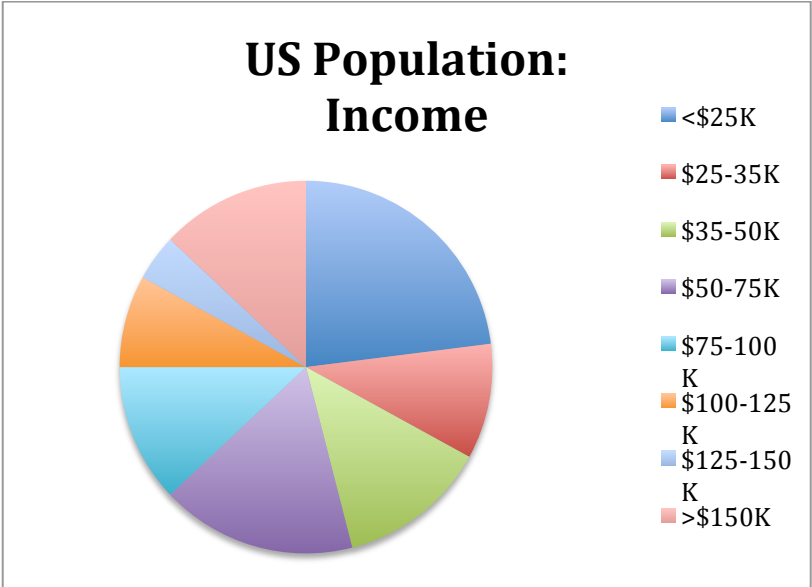


Figure 5: Annual Income of Residents of the United States⁹

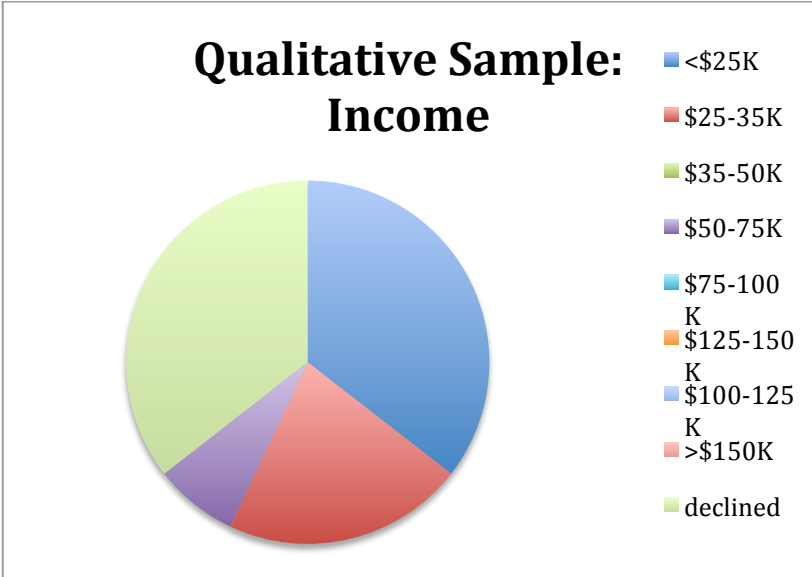


Figure 6: Annual Income of Participants from Philadelphia Study

⁹ Data from United States Census Bureau (“Population estimates, July 1, 2015, (V2015),” n.d.)

The US population has a greater percentage of very low-income participants than the scale's participant pool; 23 percent of people making less than \$125,000 per year, versus 17 percent in the sample. This is admittedly not a huge discrepancy. And yet, as outlined in the literature review (see Chapter Two), food agency is an individual's capacity to act, within a larger system. Because people of low socioeconomic status face greater barriers to food access, as well as disproportionate rates of diet-related illness, they theoretically face greater challenges to food agency. This study brings greater racial diversity to supplement both the qualitative and quantitative data collected so far, to see if theorized discrepancies in food agency are borne out in the stories of lived experience.

Although the overall sample size for the scale is enough for statistically significant tests (n=948), individual groups within that (e.g. Black or Hispanic respondents) are too small to determine causal statistical relationships. Therefore, preliminary statistical analysis is incorporated into a discussion section to create broader context for the relationships between food agency and race and socioeconomic status, and to lay out recommendations for further statistical analysis based on qualitative analysis.

Analysis

Emergent Themes and Existing Scale Items

The following analysis is broken down by major food agency themes that emerged from the qualitative data: barriers, strategies, and aspirations. Each theme is separated by sub-themes, written as if they were also scale items (questions), and compared to the items from food agency scale.

Not all quantitative items exactly match with their qualitative counterparts. Where there seemed to be a link, I inserted the most related scale item, to be as comprehensive as possible in the connection. A final analysis combines all themes and sub-themes to illuminate broad areas in which the scale does and does not reflect components of the qualitative data.

Below are the current items on the food agency scale, separated by sub-scale, as of June 2016 (Lahne & Trubek, n.d.). The study was designed with an earlier version of the scale, although the items are almost entirely the same; analysis is done with this version so that it is relevant to the current stage of scale development. Each item is answered on a seven-point Likert Scale (Disagree Strongly, Disagree Moderately, Disagree Mildly, Neutral, Agree Mildly, Agree Moderately, Agree Strongly).

Self-Efficacy

- I feel limited by my lack of cooking knowledge.
- I can always manage to decide what I would like to eat at any given time.
- When preparing food, I am confident that I can deal with unexpected results.
- When preparing food it is easy for me to accomplish my desired results.
- In preparing food, I can solve most problems with enough effort.
- I am comfortable preparing food.

- I know how to use the kitchen equipment I have.
- I am involved in daily meal preparation.
- When I shop for food, I know how I will use the ingredients I am purchasing.

Attitude

- I am confident creating meals from the ingredients I have on hand.
- Before I start cooking, I usually have a mental plan of all the steps I will need to complete.
- When presented with two similar products to purchase, I feel confident choosing between them.
- I know where to find the ingredients I need to prepare a meal.
- I find cooking a very fulfilling activity.
- For me, cooking is just something to get through as quickly as possible.
- If I try making a new type of food and it does not come out right, I usually do not try to make it again.
- I think a lot about what I will cook or eat.
- I prefer to spend my time on more important things than food.
- If everything else is equal, I choose to cook rather than have food prepared by someone else.
- I feel like cooking is a waste of effort.
- I am inspired to cook for other people, like my family or friends.
- I feel burdened by having to cook for other people, like my family or friends.

Structure

- I wish that I had more time to plan meals.
- I have a hard time finding enough time to prepare the food I'd like to eat.
- My family responsibilities prevent me from having time to prepare meals.
- My social responsibilities prevent me from having the time to prepare meals.
- My job responsibilities prevent me from having the time to prepare meals.

These items are used below as comparison points for qualitative themes.

Themes that emerged in the qualitative data were: 1) constraints on agency

(including environment, income, skill, and time/energy), 2) strategies for provisioning and preparation of food, and 3) aspirations (including healthy eating, cooking proficiency, and self-sufficiency).

Please note, regarding how to read the following analysis: data is condensed into tables for brevity (see next section for reference). Each sub-theme – for example the sub-themes of “constraint” are environment, income, skill, time/energy – is broken down into specific items. When relevant, those items are listed with illustrative examples from the data. For example, the breakdown of [constraint → environment → kitchen facilities → lack of kitchens in dorms; house in disrepair] indicates that some participants reported that their physical environment constrained their agency; for some, specifically the environment of their kitchen facilities. Two illustrations of this, found in the data, are not having access to a kitchen because one lives in a dorm, or because one’s house is in disrepair. These examples are provided for clarity, not to suggest that all kitchen facilities would constrain people in the same ways. Items are *repeated*, arrayed alongside any items from the scale that seemed relatively comparable. Where there is a blank space next to a qualitative item, no scale item seemed comparable. In some tables, there is a list of items represented in the scale that comes *before* the qualitative items; in these cases, they are scale items that relate to the overall theme but that did not emerge in qualitative analysis (e.g. “I feel capable of preparing meals” is an item from the food agency scale arrayed under “skill” because it relates to the that particular constraint, but it has no

counterpart in specific items of qualitative data). All tables will be combined at the end of this qualitative/quantitative comparison, for overarching analysis.

Constraints

Interviews revealed people experiencing four primary constraints on agency: physical environment; lack of time or energy to shop or cook; lack of money; and lack of cooking skill. People named other barriers, too, but they were not as universal – for example, feeling lazy, not being allowed to cook with much salt because of blood pressure concerns, needing to cook for other people’s tastes.

It is worth noting that these constraints have significant overlap. For example, many people struggled with time-efficient procurement of groceries. Transportation is a struggle; this is an issue of environment. It is also an issue of time; how much time someone has to shop, versus how long it takes. And an issue of income; for many, not having a car limited how much they could buy at a time, or how frequently, or how long it took to travel to and from the store. Scale items that related to these constraints came both from the Structure sub-scale, but also the Self-Efficacy and Attitude sub-scales; participants felt constrained both by the structures in which they live, and also by their own abilities.

Environment. Participants described how their environments constrained their food agency in the following ways:

1. Kitchen facilities
 - a. Lack of kitchens in dorms
 - b. House in disrepair

2. Distance from family who would otherwise cook
3. Distance between work and home (leaving less time for shopping and cooking)
4. Distance from grocery stores
 - a. No big supermarkets nearby
 - b. Difficulty of transportation getting to and from markets (traffic; multiple bus changes; long walking distance)
 - c. Distance from culturally appropriate stores (e.g. Asian markets)
5. Lack of access to gardens
 - a. Lack of gardening space
 - b. Violence in the neighborhood
6. Weather (summer too hot for cooking)

Annie offers one example of how environment exacerbates existing time constraints to limit her capacity to act, saying, "I'm so exhausted at the end of the day and then on Sunday my schedule is back to back, just the fact of getting there is time consuming. It's not the fact, when I'm in the supermarket itself...I'm in there 15 minutes, I'm done, but just getting there, it takes more than an hour because I take public transportation."

Table 5

Constraint: Environment

Type of Constraint	Specific Item	Representation in Scale
Environment		

Kitchen facilities and tools	
Distance from family	I rely on someone else to prepare the majority of my meals.
Distance between home and work	
Distance from grocery stores	
Lack of access to gardens	
Weather	

The only environment-related constraint in the scale is “I rely on someone else to prepare the majority of my meals.” There is no reflection of how one’s kitchen set up or distance between work, home, and food might be a barrier to procuring or preparing food.

Income. Money shows up in participants’ food lives in many different ways, some expected (limited grocery budget), some less so (not enough money for dentures limiting the range of foods one is able to eat). Many people spoke about how they *used to* be limited by income in the past, which indicates that life course and changing financial situations can lead to food agency fluctuations over time. Interviews uncovered the following ways that people feel money impedes the way they shop, cook, or eat.

Participants are constrained by:

1. Insufficient budget
 - Insufficient grocery budget
 - Insufficient food stamps
 - Insufficient money or transportation to spend money efficiently by buying in bulk

2. Difficult transportation
 - o Not owning a car
 - o Having to take public transportation and/or carry groceries
3. Insufficient kitchen facilities or equipment (including basic tools such as cutting boards, knives, scales)

They are prohibited from:

4. Increasing food knowledge, through culinary school or nutrition education
5. Eating enough (i.e. at least three meals a day)
6. Purchasing food at restaurants
7. Raising their own food (e.g. chickens, vegetables) because of lack of access to land

Sometimes, the issue of income appears as a discrepancy between personal preferences or standards, and what one can afford. Participants wish they could buy more items like meat, organic foods, fresh produce, and other ingredients they deem to be of quality. As Candy puts it, “It's kinda hard when you've got Champagne taste and beer budget,” although “Champagne taste” might be misleading; in general, participants want to buy foods they believe are healthy and delicious, not necessarily extravagant. Anjanette points out that the only people she knows who actually eat a balanced diet (according to USDA recommendations for food groups) are “financially comfortable.”

Table 6

Constraint: Income

Type of Constraint	Specific Item	Representation in Scale
Income	Insufficient budget	

Difficult transportation	
Insufficient kitchen facilities and tools	
Access to desired education in cooking or nutrition	
Sufficient food	
Ability to purchase prepared food when desired	I prefer to buy prepared food or go to restaurants rather than cook for myself.
	If everything else is equal, I choose to cook rather than have food prepared by someone else.
Ability to grow own food	

The only scale items related to income are those that ask whether a respondent prefers cook their own food, or purchase it. This particular frame does not take into account that one might *prefer* to buy food, but cannot afford to. This question, of ability versus preference, is an interesting one for agency. Is someone a stronger agent because they are not only able, but required, to prepare their own food? Would food agency score decrease if a capable but unwilling cook suddenly had more access to money and therefore greater ability to buy themselves out of food preparation?

The issue of procurement and income is also a complicated one. While one participant, Annie, has much greater ability to feed herself due to gardening, her garden is a result of a community project; previously, she did not have the money for land, and therefore for garden access. In this sense, she needed money to save money. Evangeline describes a similar phenomenon when she started

earning more money: she was able to save money because she could afford the upfront cost of buying in bulk, rather than buying smaller amounts of goods as funds became available. A small gain in income may create a disproportionately large gain in agency, at least in one's self-perception.

Skill. When I asked, "If you could change one thing in your life that would help you cook more the way you want to or eat more the way you want to, what would you change?" Huan, who grew up in China responded, "Can it be like, I go back to my childhood and learn cooking from my mother?"

Skill in the kitchen can both support and/or undermine a person's food agency, depending on how much skill someone feels they have – as conceptualized in the scale, how great their self-efficacy is. Participants express a desire for greater skill, detailing the ways in which they felt limited, in these areas:

1. Cooking terminology (e.g. not knowing words used in recipes)
2. Proper technique
 - Of the body (e.g. the proper way to mix)
 - Using a tool
3. Familiarity with a dish (i.e. the ability to envision the final product)
4. Planning ahead
 - Choosing a recipe/figuring out what to make
 - Logistically (e.g. defrosting meat)
5. Nutrition knowledge (distinct from cooking skill, but frequently mentioned simultaneously)

While the food agency scale does cover skill and confidence in the kitchen, the items do not track exactly with the specific areas in which participants identify their deficits.

Table 7

Constraint: Skill

Type of Constraint	Specific Item	Representation in Scale
		I feel capable cooking many types of dishes.
		If something goes wrong while I'm cooking, I am easily thrown off.
		If I try making a new type of food and it does not come out right, I usually do not try to make it again.
		I feel limited by my lack of cooking knowledge
	Cooking terminology	
	Proper technique	I know how to use the kitchen equipment I have.
	Familiarity with dish	
	Planning ahead	I can always manage to decide what I would like to eat at any given time.
		I plan the meals I am going to make.
		I think a lot about what I will cook or eat.
		I gather all my ingredients before I start cooking.
		Before I start cooking, I usually have a mental plan of all the steps I will need to complete.
	Nutrition knowledge	

Here, scale items represent one's feeling about their own skills and knowledge, especially around planning ahead, making decisions about what to cook, and using cooking equipment. It does not represent familiarity with different dishes, terminology, or nutritional information. Some participants cast

these barriers as a lack of “exposure” to a wider range of foods or ways of cooking.

It may or may not be important to have these skill-related items in the scale; the existing questions about confidence and capability may indirectly measure whether someone has enough “exposure” to cook as they wish. But it is notable that this kind of exposure can easily be achieved with the food agency pedagogy, and a reason that several participants identified for taking the Healthy Cooking Techniques class.

Time/Energy. Nothing stops Francine from cooking, “unless I’m very tired....Sometimes I like it, sometimes I’m just tired.” She is a very comfortable cook, and is able to adapt her plans depending on if she has more or less time to make something elaborate; energy is more difficult to adjust to. Huan, by contrast, identifies time, not energy, as the limiting factor, saying that what helps him eat the way he wants is, “Just time. I, when I have time, I can cook.”

Nearly all participants mentioned time and/or energy as barriers to their cooking. Time, or lack of it, is not a constant variable. For Allen, who is in college, final exams make it harder to prepare food than during the rest of the semester. For Annie, busy during the week, weekends offer the most time for shopping and meal planning. For Francine, having grown-up children, out of the house, has eased her time and cooking requirements so that she is able to choose when and how elaborately to cook. Time spent doing one food-related task, (shopping) can take away from time to do another (cooking). Interestingly, with

one exception, none of the people interviewed have a live-in partner, which means that such tasks are not being split. And when there is not enough time to cook, participants (especially Drexel students) say they do things like order cheese steak or pizza, eat a bagel or some fruit.

In interviews, people were just as likely to frame time deficit as a lack of *energy*. This, like skill, has implications for the food agency pedagogy. Francine shows us that skill can help negotiate short time frames (she makes a salad rather than slow-cooked vegetables). Skills in planning might also help easy issues of energy, making tasks more manageable and less overwhelming. As a solution for not having the energy to face cooking at the end of the day, Kelly says, “That’s why you gotta mise out [organize your tasks and time, like a chef’s mise en place]. Beforehand. Defrost the chicken in the fridge.”

For participants who are relatively unconstrained by other things, like income or environment, time is the ultimate barrier. Kelly acknowledges that, “I can make whatever I want, I can get whatever I want; I just have to do it. I think, like I have the ability to do whatever I want, like I have my car, I have the markets right there if I wanted to go, I could go, I could spend money and buy food, go home and cook it if I wanted to. It’s just time constraints.”

Table 8

Constraint: Time

Type of Constraint	Specific Item	Representation in Scale
Time		

	My family responsibilities prevent me from having time to prepare meals.
	My job responsibilities prevent me from having the time to prepare meals.
	My social responsibilities prevent me from having the time to prepare meals.
Limited time	I have a hard time finding enough time to prepare the food I'd like to eat.
	I wish that I had more time to plan meals.
Limited energy	

Time is well-covered by scale items. Energy, on the other hand, is not mentioned. Perhaps they are close enough; respondents may think of them as closely enough related that if they feel constrained by energy, their time-related responses will reflect this. How items are conceptualized may not reflect related but more complicated, lived experiences.

Strategies for Planning and Provisioning of Food

One of the clearest insights from interviews was that participants are incredibly strategic about how they plan and provision their food. Everyone is navigating a particular food environment, with specific constraints and set of food preferences; participants articulate in detail exactly what strategies they employ to buy the food they want, given the framework in which they operate. Even within the same community – a group of participants from Mantua, Philadelphia who are all members of the Dornsife Center – strategies may differ wildly, in where people shop or what qualities they prioritize. Still, for both

community residents and Drexel students, most plans revolve around shopping for different kinds of foods at different stores in order to maximize quality (or convenience) and minimize cost. These tactics are similar to what participants in our Vermont focus groups report doing, although within a different environment and food system.

Strategies for provisioning. Participants employ the following strategies for procurement of food:

1. Buying in bulk
 - For economic efficiency (cheaper per unit)
 - For efficiency of time (e.g. buying for entire month)
 - Keeping fridge and freezer stocked to avoid needing to eat out
2. Deal-seeking
 - Shopping at different stores for different food stuffs (for ease of access; differential quality and price of foodstuffs)
 - Using coupons
 - Purchasing seasonal produce (which is cheaper)
3. Balancing price versus quality
 - Paying extra for specific priority items (e.g. wild salmon; favorite salad dressing)
4. Balancing price versus satiety (how filling food will be)
5. Assessing ingredients for health (e.g. avoiding high-fructose corn syrup; prioritizing organic)
 - For many, this plays into quality, in “balancing price versus quality”
6. Gardening (to increase quality and quantity of produce and decrease grocery bill)

In terms of procurement, the primary goal for most people is maximizing quality of food (whatever “quality” means to each person) per dollar spent. By patronizing different stores, participants increase the time and mental effort they expend, to purchase the foods they want at the lowest possible price. It is not all

about deal-seeking – participants on fixed incomes still shop at Whole Foods and Reading Terminal Market, a public market with a variety of vendors. Rather, people deal-seek within their own parameters of acceptable food.

This kind of mental negotiation is far from straightforward or static. Mike describes the complex thinking of weighing convenience and grocery needs, in order to decide where to shop on a given day:

I'll go to Fresh Grocer or Target...It depends. Cuz Target is still in the city, but it's closer to like City Line, stuff like that, so you go in and there's plenty of parking. It's Target, so we just wind up shopping in general, not just food shopping. If it's...less than a cart's worth of items, and it's all food we need to get, we'll probably go to Fresh Grocer. Even though parking is kind of terrible in this area. I mean, we could walk there... Fresh Grocer is more for like fruits, vegetables, fresh cheeses. Like, if I'm getting fresh mozzarella. It's the same stuff that's at Target, but it's so much easier to just go over the Fresh Grocer and just get it and go home. But like, if I'm buying more for like, long-term foods for the week, then it's going to be Target.

He balances many different needs and priorities – how much food he needs, what kinds of foods he needs, the parking situation, how much time he has to shop. All these thoughts just to compare two different stores; many participants regularly visit at least three.

Two participants named their provisioning habits as the reason they eat the way they want to – and when asked to rate their food agency between 1 (very constrained) and 10 (totally free) they both gave themselves 10/10. Francine says that her use of coupons and deal-seeking is how she “eats what she likes.” Annie gives almost all the credit to her community garden plot, where she grows the vast majority of the vegetables she eats, shrinking her monthly food budget to a

tiny fraction of what it used to be. According to their accounts, provisioning strategies are the cornerstone of their agency. So are they reflected in the scale?

Table 9

Strategies for Food Provisioning

Type of Strategy	Specific Item	Representation in Scale
Provisioning		
		When I shop for food, I know how I will use the ingredients I am purchasing.
	Buying in bulk	
	Deal-seeking	
	Balancing price vs. quality	
	Balancing price vs. satiety	
	Assessing health	
	Gardening	

The scale’s one question, “When I shop for food, I know how I will use the ingredients I am purchasing,” does not reflect any of the strategies participants employed to get food, but rather that they know how they will use that food once they have it. Again, it may not be important for the scale to ask specific questions like “I buy in bulk for efficiency” or “I use coupons or sales to purchase foods.” But, given that strategies for procurement are essential to having food in the home, and that participants rely on it so heavily to deal with constraints around income and time, it seems important to have some

representation in the scale, even if it is simply “My strategies for obtaining food allow me to have the foods to cook.”

Strategies for planning meal preparation. Participants employ these strategies for planning food preparation:

1. Time management
 - Choosing dishes based on how much time is there to cook
 - Minimizing time spent cooking
 - Planning all meals for the week
2. Accounting for others’ tastes in menu planning
3. Cooking for economic efficiency
 - Maximizing use of ingredients (e.g. “stretching” ground beef for the week by incorporating it into multiple dishes)
 - Using up available ingredients
4. Cooking for health/nutrition
 - a. Planning meals to be nutritionally balanced
 - Eating to minimize health issues (e.g. diabetes, weight control)
 - Cooking to avoid unhealthy or expensive convenience foods
 - Eating/not eating the same thing every day to optimize diet (control intake/maximize diversity)
5. Adjusting practices based on season (e.g. eating raw foods in summer to avoid cooking in the heat)
6. Using smart phone apps to find recipes

The goals for planning meals are more varied than procurement – one person wants to maximize variety in her diet, while another eats the same thing in order to organize and control her food intake – but they still emphasize efficiency. How much time is available to cook? What ingredients to be used? What would be nutritionally balanced? What would be filling and satisfying, to avoid overeating or overspending? Anjanette’s shopping and cooking strategies illustrates the shifting priorities of health, cost, and convenience. She shops at

Whole Foods, “I go there, I have a tendency to see what's on sale first. But everything I buy in the store is nutritional.” She cooks because:

[Otherwise] I will eat junk food... I put myself on a schedule. Monday and Tuesday and Wednesdays. I cook for 3 days. I love crock pots, I love a toaster oven, you know I might be at work and I'll make my bean soup. And that will last me until Thursday, so I know Friday, Saturday, and Sunday I'll cook. So I would basically say, I'm not cooking every day, but I would say out of the 7 days of the week, I might cook 5.

Anjanette was the community resident most excited about taking the cooking course; she does not have a high level of cooking confidence. Still, she has managed to arrange her food life to help her stay on track nutritionally and economically. Long-term planning for health (e.g. eating vegetables, avoiding carbohydrates or meat, consuming enough fiber) thus becomes day-to-day planning around food.

Table 10

Strategies for Food Preparation

Type of Strategy	Specific Item	Representation in Scale
Cooking		I plan the meals I am going to make.
		Before I start cooking, I usually have a mental plan of all the steps I will need to complete.
		I am involved in daily meal preparation.
	Time management	
	Accounting for others' tastes	I am inspired to cook for other people, like my family or friends.

	I feel burdened by having to cook for other people, like my family or friends.
Cooking for economic efficiency	I change my plans for what I will cook because of the availability of ingredients.
Cooking for health/nutrition	
Adjusting practices based on season	

The scale shows more items related to strategies for cooking than it does for provisioning. Although strategies related to time management, health, and seasonality do not appear in the measure, they may actually be captured by the Self-Efficacy and Attitude questions, such as “When preparing food it is easy for me to accomplish my desired results” and “I am confident creating meals from the ingredients I have on hand,” since this ease and confidence likely comes from effective use of preparation strategies.

What these items – for both provisioning and for preparation – do not reflect is how able someone is to purchase the ingredients they desire, whether because of physical access, financial ability, or effective deal-seeking. There is not a way to indicate whether people can buy what they want, or if they are unable to do so. For example, one might always be able “to decide what I would like to eat at any given time,” or “feel confident choosing between” two similar products, but might not be able to access the ingredients to prepare what they would like to eat, or have the money to buy two similar products that they could otherwise easily choose between. If agency is individual action *within* larger

structures, it must include how well that action works in concert with— or in resistance to— those structures.

It also seems that participants have developed strategies for cooking and shopping in response to constraints, namely income and access to food. They make (literally) calculated and deliberate choices about where to get food, because that is the only way they can make ends meet. In other words, having agency constrained in one way, like money, may over time bolster agency in another way, like successful knowledge of the food environment.

Aspirations for Cooking and Eating

People face constraints on purchasing and cooking food, and have strategies for dealing with those constraints. But they are not fully satisfied. Participants aspire to greater knowledge, to more effective action, when it comes to cooking and eating. This is unsurprising in a group of people who elected to take a class titled Healthy Cooking Techniques. Still, the variety and force of aspiration reveals the ways in which people feel they could do better with food.

Aspirations fall broadly into three categories: healthy eating, cooking proficiency, and self-sufficiency. There is some overlap between, especially with goals related to healthy eating— for example, aspiring to greater cooking skill in order to cook healthier foods.

Healthy eating. Participants envision being able to do the following in order to eat healthier foods than they do now:

1. Altering foods for health

- Without losing taste
- 2. Eating fresh foods
 - For weight loss
- 3. Managing health issues with food
 - Staying healthy/avoiding health issues
 - Not exacerbating issues like hypertension or diabetes

Table 11

Aspiration: Healthy Eating

Type of Aspiration	Specific Item	Representation in the Scale
Healthy eating		
	Altering recipes for health	
	Eating fresh foods	
	Managing health issues with food	

Healthy eating does not appear anywhere in the food agency scale. The theory of food agency does not deal directly with issues of healthy eating; it does not prioritize what kinds of meals people prepare, and whether meals are “good” for them. But health and cooking is something that participants often speak about in concert. When people think about shopping and cooking in terms of the ultimate product, then any health goals or concerns become part of that vision and the strategies for achieving it.

Cooking proficiency. Participants identify the ways in which they would like greater proficiency in the kitchen. These items are linked to constraints of skill; greater proficiency means less of skill-related barrier to cooking. These things they would like to work on:

1. Building technique
 - For cooking the same ingredients in different ways
2. Ability to cook what one envisions
 - Achieve desired taste
 - Successful experimentation and/or improvisation while cooking
3. Cooking from scratch
 - E.g. making a healthier tomato sauce
4. Cooking or trying new foods
 - Eating new dishes at restaurants
 - Using more spices
 - Trying new recipes
5. Efficiency in cooking
 - Minimize time needed to cook without giving up cooking altogether
6. Learning cooking jargon
 - Words used by chefs
 - Words used in recipes

Table 12

Aspiration: Cooking Proficiency

Type of Aspiration	Specific Item	Representation in the Scale
Cooking proficiency		
		I am comfortable preparing food.
		I feel limited by my lack of cooking knowledge
	Building technique	I know how to use the kitchen equipment I have.
	Ability to cook what one envisions	When preparing food it is easy for me to accomplish my desired results

	Before I start cooking, I usually have a mental plan of all the steps I will need to complete
	When preparing food, I am confident I can deal with unexpected results
	In preparing food, I can usually solve problems with enough effort
Cooking from scratch	
Cooking or trying new foods	
Efficiency in cooking	I wish that I had more time to plan meals
Cooking jargon	

Cooking technique and envisioning are both represented in the scale; cooking from scratch, trying new foods, and knowing cooking jargon are not. While some of these cooking-related aspirations are represented in the scale, they are represented in present terms, and not in aspirational ones; there is no way for respondents to note any discrepancy between their current cooking abilities and where they wish to go.

Self-sufficiency. Finally, participants have dreams of greater self-sufficiency with food. In other words, they picture ways in which they would be less dependent on, or constrained by, their food environment by:

1. Growing and preserving own food
 - Canning, dehydrating, and other preservations skills
 - Growing vegetables
 - Raising chickens and other animals for food
2. Cooking for/helping others

- Greater ability to cook for family members (e.g. diabetic grandmother; future children)
- Dreams of bringing food to underserved groups (immediate community and globally)

Table 13

Aspiration: Self-sufficiency

Type of Aspiration	Specific Item	Representation in the Scale
Self-sufficiency	Growing and preserving own food	
	Cooking for/helping others	I feel burdened by having to cook for other people, like my family or friends

Although the scale does contain one item related to self-sufficiency aspirations – “I feel burdened by having to cook for other people, like my family or my friends” – it does not get at the spirit of what participants expressed: that they wish to provide better for themselves, and also for the people around them. Annie is already growing much of her own food. Anjanette wants to learn more about preserving food for winter. Geena plans to start growing vegetables in five-gallon buckets, if she can afford them; she has no access to garden space. She also wishes for a community cooking space where people could share food together. Tisha talks about using her culinary training to volunteer at soup kitchens. Kelly thinks about her own farm where she raises happy chickens. Candy’s vision is even more elaborate; she tells me:

I got a fantasy. My fantasy is to have a television program...where I'd have on a safari hat and a trench coat, like Carmen San Diego, and I'd spin the globe, and put a hand over my eyes, and spin it, and land my hand

wherever it stopped, and wherever it stopped, that's where I'd go. And I'd bring food.

The seriousness and feasibility of these dreams varies. Geena may well start growing vegetables, while Candy will probably not start her own TV show. Aspirations for preserving food seem more related to food agency than the desire to feed strangers. But both kinds of self-sufficiency, the personal and the community-wide, underline how participants see themselves as part of a larger system. They can identify the failings in structure that make it difficult for them to feed themselves, and also for *other* people to feed *themselves*. And they can imagine a host of ways that they could resist those shortcomings and create a better food environment.

Aspiration in general. Although the things that participants aspire to *are* represented partially in the scale, they are presented as abilities or attitudes that one already has, rather than things they wish to have, or ways they wish to be. While aspiration might not make a difference in someone's agency *in this moment*, I suspect it affects how agency develops. For example, if cooking skill, or the ability to plan and shop effectively, are impeding greatest personal agency, the desire to be better at these tasks would likely to be a prerequisite to actually getting better – without it, what drives change? If the scale is to be used in pre- and post-testing of interventions, it might be useful to track how much changes in agency are related to personal aspiration.

One comparison highlights potential difference in how aspiration might translate into greater agency, when a person is supported in achieving their goals. While Jamar did name ambitions in the kitchen – eating healthier, cooking with less salt for his diabetic grandmother, making tomato sauce from scratch – he also seemed relatively uncommitted to making them happen, saying that one attempt at cooking chicken was “the first and last time.” He has taken four separate cooking classes through the Dornsife Center, but there was little evidence that they have changed his cooking or eating practices, as he still relies on his female family members to prepare meals. Evangeline spoke at length about her wish to be able to cook for herself, to learn proper cooking procedures, to plan, to mix things correctly and use the right tools, to have an idea of how final dishes are supposed to look. In contrast to Jamar, she seemed sincerely eager to absorb knowledge in order to change her own practices. While Jamar reports no changes in his practice, Evangeline details how her cooking and diet have improved, saying, “I cook like five days of the week now...before, I couldn’t cook...I had trouble doing the simplest things.”

Perhaps the difference here is on how imperative it is for someone to succeed in their goals. Both Jamar and Evangeline went into the class wishing for greater skill and ease in the kitchen. Evangeline has incorporated what she learned and continues to build on it, while Jamar has maintained his status quo. But Evangeline *needed* to make those changes, by her own admission, in order to

feed herself, while Jamar has at least four family members who cook for him regularly.

Interestingly, both rated their agency greater in follow-up interviews. Jamar went from a 5 to an 8, as a rating of how satisfied he is with the meals he is fed or buys; Evangeline from a 4 to a 6/7, she says because a new job means more money with which to buy groceries. So even if aspiration helps increase skill, skill may not always seem to be the most important factor for someone gauging their own agency.

Finally, it is crucial to note that most people aspire to greater ability, rather than greater income (more on income to follow). While participants openly acknowledge the role that money plays in their diets, they speak about how technique and knowledge would help them deal with financial constraints. This perspective supports the dissemination of a cooking pedagogy; education can address all of the aspirations listed above, with the possible exceptions of helping others through food (this can only partly be achieved through greater personal food agency) and attending a professional culinary school (although the pedagogy may fulfill some of this desire). The wish for proficiency in cooking also has policy implications: people may want to be supported not only through economic services like food stamps, but also to build their own capacity to act. This is not a group of folks living out some stereotype of poor American eating — they want to know more, for themselves and their families. We can support these

ambitions with the food agency pedagogy – and we should perhaps consider tracking it with the food agency scale.

Putting It All Together: Constraint, Strategy, Aspiration, and the Food Agency Scale

What can be learned by looking at all the emergent, qualitative themes about food agency, arrayed next to any corresponding items from the scale (Table 14)? The goal here is not to suggest that all these items should be included in the scale; rather to organize what participants reported and see, broadly, whether those experiences are represented in the quantitative measure.

Table 14

Qualitative Themes of Food Agency Arrayed with Items from the Food Agency Scale

Theme	Specific Item	Representation in Scale
Constraint		
Environment		
	Kitchen facilities and tools	
	Distance from family	I rely on someone else to prepare the majority of my meals.
	Distance between home and work	
	Distance from grocery stores	
	Lack of access to gardens	
	Weather	
Income		

Insufficient budget	
Difficult transportation	
Insufficient kitchen facilities and tools	
Access to desired education in cooking or nutrition	
Sufficient food	
Ability to purchase prepared food when desired	I prefer to buy prepared food or go to restaurants rather than cook for myself.
	If everything else is equal, I choose to cook rather than have food prepared by someone else.
Ability to grow own food	
Skill	
	I feel capable cooking many types of dishes.
	If something goes wrong while I'm cooking, I am easily thrown off.
	If I try making a new type of food and it does not come out right, I usually do not try to make it again.
	I feel limited by my lack of cooking knowledge
Cooking terminology	
Proper technique	I know how to use the kitchen equipment I have.
Familiarity with dish	
Planning ahead	I can always manage to decide what I would like to eat at any given time.
	I plan the meals I am going to make.
	I think a lot about what I will cook or eat.
	I gather all my ingredients before I start

	cooking.
	Before I start cooking, I usually have a mental plan of all the steps I will need to complete.
Nutrition knowledge	
Time	
	My family responsibilities prevent me from having time to prepare meals.
	My job responsibilities prevent me from having the time to prepare meals.
	My social responsibilities prevent me from having the time to prepare meals.
Limited time	I have a hard time finding enough time to prepare the food I'd like to eat.
	I wish that I had more time to plan meals.
Limited energy	
Strategy	
Provisioning	
	When I shop for food, I know how I will use the ingredients I am purchasing.
Buying in bulk	
Deal-seeking	
Balancing price vs. quality	
Balancing price vs. satiety	
Assessing health	
Gardening	
Cooking	
	I plan the meals I am going to make.
	Before I start cooking, I usually have a mental plan of all the steps I will need to complete.
	I am involved in daily meal preparation.

Time management	
Accounting for others' tastes	I am inspired to cook for other people, like my family or friends.
	I feel burdened by having to cook for other people, like my family or friends.
Cooking for economic efficiency	I change my plans for what I will cook because of the availability of ingredients.
Cooking for health/nutrition	
Adjusting practices based on season	
Aspiration	
Healthy eating	
Altering recipes for health	
Eating fresh foods	
Managing health issues with food	
Cooking proficiency	
	I am comfortable preparing food.
	I feel limited by my lack of cooking knowledge
Building technique	I know how to use the kitchen equipment I have.
Ability to cook what one envisions	When preparing food it is easy for me to accomplish my desired results
	Before I start cooking, I usually have a mental plan of all the steps I will need to complete
	When preparing food, I am confident I can deal with unexpected results
	In preparing food, I can usually solve problems with enough effort
Cooking from scratch	

Cooking or trying new foods	
Efficiency in cooking	I wish that I had more time to plan meals
Cooking jargon	
Self-sufficiency	
Growing and preserving own food	
Cooking for/helping others	I feel burdened by having to cook for other people, like my family or friends

Regarding constraints on an individual's actions, we see that the food agency scale possesses many items related to constraints of personal skill, but not the structural barriers mentioned by participants. In fact, the Structure items currently on the scale are how time poverty (for planning and preparation), family responsibilities, social responsibilities, and job responsibilities act as obstacles to food preparation. There is no way to indicate how physical environment or personal finances prevent someone from getting or making food.

The skill-related constraints also do not allow for responses about how culturally mediated knowledge, like cooking terms, familiarity with different foods, and nutritional information, affect one's ability to make food. For most respondents, it was not that they could not cook *any* food because of these barriers, but rather that they felt they could not expand their repertoire or cook healthier dishes because they did not possess the culinary or nutritional literacy to achieve their goals.

Time, as a constraint on personal action, shows up repeatedly on the scale. Lack of energy does not. This might be a small difference, but is a discrepancy in the lived experience of cooking and how one can report on it. Several participants indicated that while they did have time to cook at the end of the day, they did not always have the wherewithal to face the kitchen.

Items on cooking strategies appear in the scale, although once again, there is no reference to cooking strategies for healthful meals. To mention health in the scale might be overly prescriptive, suggesting that that should be the goal of cooking. And yet, many participants struggled specifically with their ability to make *healthy* foods. In these cases, one's food agency might feel most relevant in ability to act in support of personal health.

Unlike for cooking, strategies for food provisioning are almost completely absent from the scale. This gap calls into question the scale's ability to measure the full spectrum of food agency, when some participants identified their provisioning strategies as their number one support of personal capability.

Aspiration is not part of the food agency scale. Again, healthy eating is absent. There are items related to cooking proficiency, but not for *aspirations* for greater cooking proficiency. The aspiration for self-sufficiency – that is, self-sufficiency in producing and preserving food, rather than preparing it – is also absent. Self-sufficiency in producing and preserving food is not included on the scale even in present terms. This gap, combined with the gaps around structure and strategy, suggest that the scale is thoroughly measuring actions related to

cooking, but not necessarily the varied and related actions that lead to cooking. In short, the scale is not reflective of this particular food reality – some of the ways in which this group is limited, the ways in which they resist, and what they aspire to know and do for more effective resistance.

Discussion: Race, Class, and Agency

Although much of what we can tell about race, socioeconomic class, and food agency is limited by current scale development, some patterns begin to emerge that should be explored with future research. At this point, we know several things about the food agency scale's validity. It was developed with established scale development methods outlined by DeVellis (2012) with Exploratory and Confirmatory Factor Analyses; it is internally consistent; it meets criterion-related construct validity and measurement invariance (Lahne, 2016). It predicts number of meals prepared per week ($r=0.36$, $p<0.05$); that is, a higher food agency score (FAS) indicates a higher probability of cooking more of one's own food. It is normally distributed (see Figure 7), meaning that variables are more likely to have a direct relationship and high predictability. Scores are skewed right; people are measured as having relatively high food agency. The mean FAS for development and validation samples combined is 2.2 out of a total of 3.

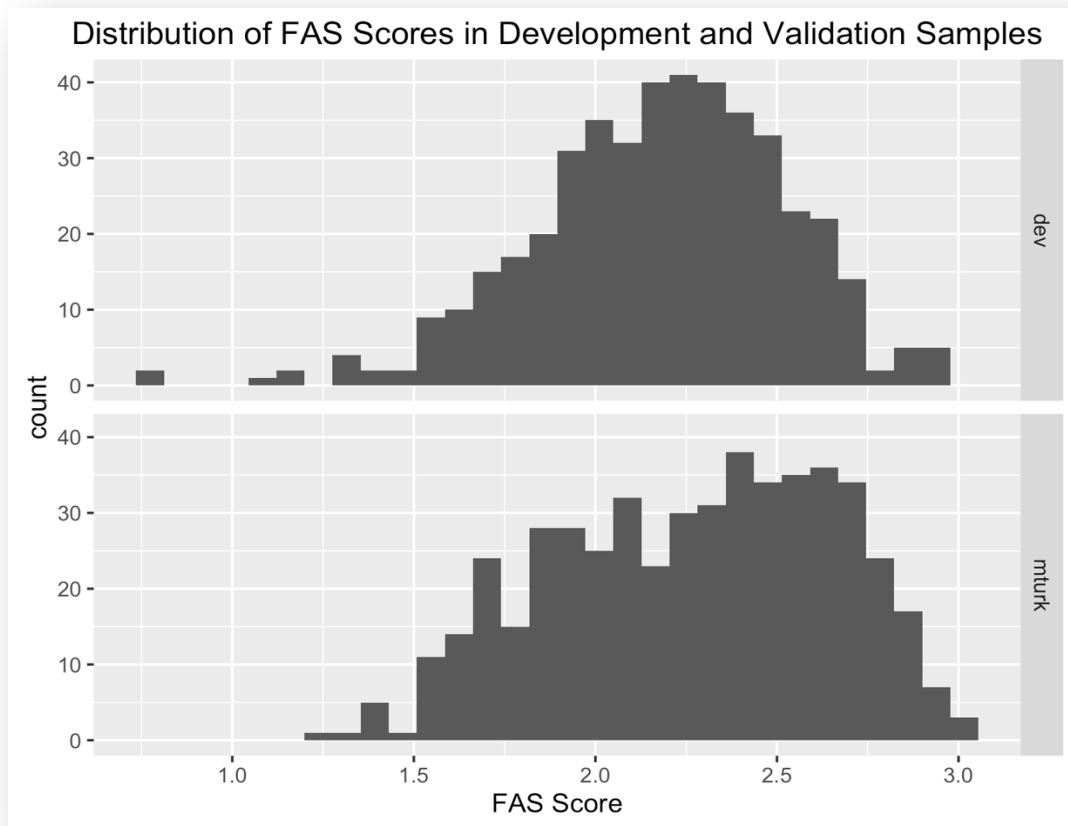


Figure 7: Distribution of Food Agency Scores in Development and Validation Samples¹⁰

In addition to predicting meal preparation rates, food agency scores have some causal relationships that make intuitive sense. Scores increase with age ($t(902)=4.32, p<0.05$), and the rate of change is higher for women ($t(902)=2.20, p<0.05$) (Lahne, 2016). This is what we might expect: people leave their parents' home and have to cook for themselves; they move in with partners, have children, and learn to cook for their families – especially women, who still do much of the cooking in America. Interviews in Philadelphia confirm this trend,

¹⁰ (Lahne, 2016)

with Drexel students (both male and female) expressing a need to learn to feed themselves now that they cannot rely on their parents or expensive, purchased food, and community residents reminiscing about when they learned to cook as young adults or young parents.¹¹

And yet, food agency scores are *not* associated with income in ways that are easily explained. There is a significant statistical effect of income on food agency scores ($F(7,924)=2.76, p<0.05$), but higher wealth is not always associated with higher agency (see Figure 8).

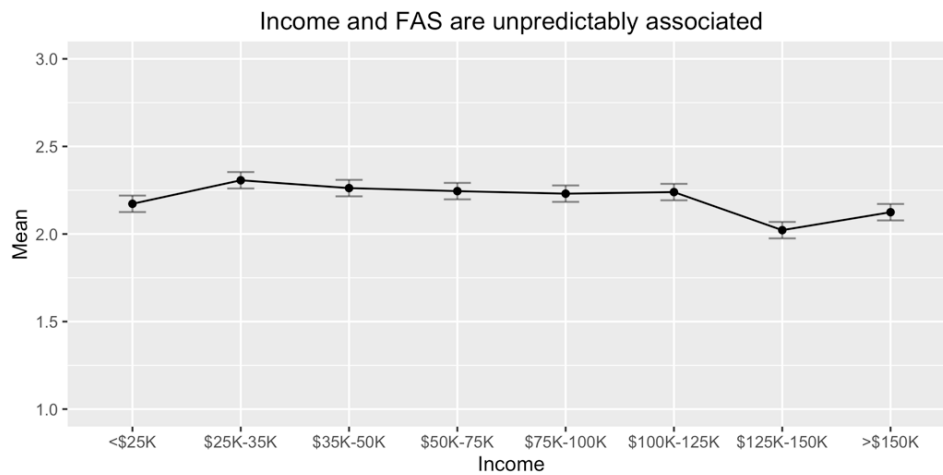


Figure 8: Food Agency Score by Annual Income: Development and Validation

Samples Combined¹²

¹¹ It would be interesting to determine, in future longitudinal studies, whether this impetus to feed oneself reverts to more stereotypical gender roles when young heterosexual people enter partnerships. Do women take up more of the foodwork, and does their agency grow correspondingly? Szabo (2013) notes that empirical work on men’s home cooking is limited; this would be an excellent venue for future food agency research.

¹² (Lahne, 2016)

The qualitative data actually explains this otherwise strange dip in agency for richer respondents. It seems that people with impediments to feeding themselves—for example, lower income that makes it harder to buy prepared foods—develop skills that allow them to procure and prepare foods, and thus develop greater food agency. Very poor respondents might face so many impediments that they have slightly lower-than-average agency, while very rich respondents might never have the need to feed themselves, as they can afford to purchase more of their food already prepared.

At this point in data collection, it is not possible to create a similar graph for the relationship between food agency and race; there were not enough respondents of color for analysis to be statistically significant (see Figure 1). An initial display of distribution for Black respondents—again, not a significant sample size—is not a normal distribution like the one seen above, for all respondents combined (Figure 7). Future testing should be done on the distribution for different racial groups; this would help determine whether the scale is equally predictive for respondents, regardless of race.

A larger sample will also allow testing on the relationship between food agency and socioeconomic status combined with race, two factors that are connected in diet-related health issues.

Qualitative data suggests that agency is related to income and race, but not in ways we might expect. As previously mentioned, people reported many

barriers related to income, but also detailed many strategies to deal with those barriers, and often identified as having higher levels of agency thanks to those skills. It is not possible to generate food agency scores for participants in the Philadelphia study; they filled out a previous version of the scale, with slightly different questions, and so their scores could not be compared to those of the development and validation samples. Race and ethnicity emerged as a factor in how participants related to food, and how they decided what foods to eat, but race did not seem to overtly affect anyone's ability to get or cook food. (With one exception: Annie has had some difficulty accessing Asian ingredients in the past.) Thus, race may be more an issue of food identity than food agency. This question is worth much deeper exploration, both with the scale and in qualitative research.

At this point, statistical relationships between agency and demographic variables can demonstrate patterns, but we need a much larger and more representative sample for stronger models and causal relationships. We do not yet know what an average food agency score *means* for individual experiences. Eventually, we want to track scores across income levels and other groups simultaneously. This kind of modeling – that could, model food agency against race and socioeconomic class combined – could be illuminating in looking at complicated food-related problems, such as food-related health discrepancies that cannot be accounted for by income alone.

Conclusion

While a greater sample size and further modeling is important, both for learning about the scale itself and about the relative agency of its respondents, there is the question of what precisely the scale measures. The preceding analysis suggests that, within a small group of low-income people of color who are interested in cooking, there are components of food agency that are being measured, and ones that are not. Skill, self-efficacy, and cooking strategies all appear in the scale, as do issues of time constraints. Structural barriers to, and strategies for, provisioning food do not appear; neither do concerns about the relationship of health and food, or aspiration to cook and eat more skillfully.

Even long-established quantitative measures can have trouble with equal assessment between racial groups. For example, Black students consistently score lower on the SAT than white students, even when accounting for income differences, and one explanation is that the test's content is primarily generated from white culture (Anonymous, 2009). It is worth pondering, as research moves forward, whether food agency scores accurately represent minority experiences.

CHAPTER SIX

CONCLUSION

At the end of this work, what can be concluded about food agency, from the narrations of Philadelphians, and from the comparison of their experiences with the food agency scale? Closing reflections are organized by the study's research questions, although there is overlap in the lessons learned from each investigation:

Question 1: How do participants narrate their daily experiences of food, and what do those narrations reveal about food agency in a low-income urban community of color?

Many insights emerged from participants' narrations about their daily experience of food, some expected, some not. We have Anjanette, excited to learn more technique and eat healthier foods; Annie, growing and cooking most of her own food; Geena, making the best of a difficult situation by eating at Whole Foods; Francine, already skilled but still curious; Evangeline, figuring out how to shop, cook, and eat away from home; Jamar, eating what he likes and enjoying his family's cooking; and Kelly, using nutrition to navigate the adult waters of choosing foods. Each of these people enacts agency under different circumstances, and also shares certain approaches or challenges with the others. Even in a small group – where everyone lives in the same city; lives either in Mantua or attends Drexel University; is either in their early twenties or in their fifties; has self-selected for an interest in healthy cooking education – there are so

many permutations of circumstance and strategy, of skill and constraint. The constant, more or less, is aspiration: an interest in learning more, doing better.

Another way to frame this common theme of “aspiration” is “struggle.” Megan Carney, in her writing about how migrant women strain to find healthy food, calls it “la lucha diaria”: the daily struggle. It is the lived, varied experience of food insecurity (Carney, 2014). The whole group tries to feed themselves intentionally and healthfully, with different levels of success. I didn’t know, coming in as a food systems researcher and assuming that was *my* lens – that people operate in external systems that affect them – how much people see themselves as part of a larger food environment. I noticed a high level of self-awareness about what they were up against; even people who see themselves as strong agents are very clear about exactly what they are resisting through their agency. These articulations, of being part of a larger whole, often show how societal structures make choices harder, rather than easier.

Many people revealed how their food practices are also rooted in a specific history or culinary tradition. Annie and Evangeline grew up in Filipina and Caribbean households, whereas Geena draws a longer line to African American history. Even Kelly espouses a devotion to Italian food, although I cannot say whether that is an inherited or chosen cuisine. Where we come from, how we were raised, and how we were trained to cook and eat – these themes were embedded in my questions about how people ate as children, and whether those patterns have changed. And it became clear that the food of childhood is an

important reference point, whether in emulation (as with Annie) or in opposition (Kelly), as a baseline to measure against (Geena and Anjanette), or as a mixture of all these approaches. If food agency is contextual, personal history is part of that context, as it provides a framework in for agents' personal choices.

Identity in food agency does not end with inheritance. People appear to identify with their current routines and practices. That could be my own lens, as their particular food ways were part of how I distinguished participants in my research. But they all *know* what they *do*. Their provisioning and preparation of food is intentional, even if those practices do not meet always people's own ideal standards for themselves. In other words, everyone is trying to make sense of food, and does this by grounding it in *something*, whether heritage, taste, nutrition, or a mixture of the three.

For these individuals, the biggest constraints on agency appear to be money, time/energy, location, and skill/experience with cooking and provisioning. Money affects agency both directly (the amount available to buy food) and indirectly (access to a car, neighborhood grocery store, electricity, kitchen facilities). Skills in planning and provisioning end up being important as cooking skill when people are constrained by income. They need to buy the right foods for as little as possible, planning for future weeks when there is less money or time to travel buy groceries. The margins of error are small when you cannot just run to a local store, either because it does not exist or you cannot afford it.

For greatest food agency, a person would have enough money, skill, time, and energy to prepare the food they want to. Otherwise, people run into the “double jeopardy” of being both poor and unskilled, outlined by Martine Stead (2004). After these interviews, however, I believe that some level of constraint, financial or otherwise, actually encourages people to develop greater agency. When they do not have the ability to pass off the responsibility of cooking to someone else, they learn to do it themselves. It is important, however that they learn to cook, and cook confidently. One way is through cooking education.

Question 2: As evidenced from observations and interviews, how do community resident participants experience the Food Agency Pedagogy, and are their experiences different from that of Drexel University students?

Differences in experience of the pedagogy – specifically, how useful a participant deemed the class – were observable between Drexel students and community residents. Community residents experienced the pedagogy in two ways: either as an exciting and transformative, or as pleasant but not game-changing. The three Drexel students I spoke with, by contrast, all felt completely changed by the pedagogy. It’s possible if I were able to follow up with the more comfortable cooks, Mike and Summer, a similar divide would exist, between excitement and contentment.

The more striking reasons for appreciating the class seemed to be about life course and self-efficacy. Broadly, participants who were older tended to be less impressed with the class. There were two notable exceptions: Anjanette,

who is middle aged but did not think of herself as a very experienced or skilled cook, and Jamar, who was younger but not particularly motivated to increase his skill. Older, *more skilled* cooks, therefore, seemed to be less effected by the Healthy Cooking Techniques class, whereas the younger and less confident expressed that they had been changed by the course. When people felt less exposed to cooking ideas or techniques, their cooking self-efficacy suffered; this problem was at least partly addressed by the class. When asked in follow-up interviews and focus groups, the participants who were initially less confident enthusiastically reported that they were cooking more. This observation is good news for a portable pedagogy, as it suggests that the structure and concepts could be applied in a variety of settings, as long as the participating group had lower self-efficacy and a desire to succeed.

The energy to cook – especially if it has already been spent on traveling to shop – emerged in interviews as a nuance of time constraint. The literature reflects people’s lack of time to cook, but nearly everyone I interviewed expressed this more as a limitation of energy. I speculate, based on my own experiences, that greater skill and self-efficacy in the kitchen can mediate energy as a barrier to cooking. A confident cook who moves with ease and intuition probably expends less energy than one struggling to keep an unfamiliar process under control – can use limited *time* more effectively and comfortably.

Despite barriers, people’s self-perception of agency tends to be high if their self-efficacy is high, and low if their self-efficacy is low. This reality

confirms Bandura's conclusions about self-efficacy being key to agency. Participants primarily want to be supported with skill enhancement; another way of saying this is that they want to be more confident in their cooking skills. I wondered before this study, and I continue to wonder: is young adulthood the best time for cooking education? It is impossible to say for certain with such a small sample, but their comments seem to support the idea of offering cooking classes to people who have just left their parents' homes. Older students might still change their practices, but life has already required many of them to develop at least rudimentary skills. Young folks like Evangeline and Kelly are at this crossroads, and have perhaps the most to gain, not having to struggle to teach themselves. Another way of looking at this is that people with low cooking self-efficacy and skill can make the biggest leaps in agency, and young people are more likely to have less skill and confidence because their life course has not yet provided any experience. Agency is incredibly complex and self-referential, and can fill great gaps in experience. If people have high food self-efficacy, they may feel like they eat exactly as they would wish, *even if* they identify ways that things could be easier, such as more time or money.

Question 3: Does the scale reflect the experiences of low-income participants of color, and does it demonstrate a relationship between race, income, and agency?

There are not currently enough responses to the scale to be able to make conclusions about the relationship between race, income, and agency.

Preliminary data suggests that the relationship between income and agency

exists, but is not linear. Agency is lower at the lowest and highest ends of the income spectrum. This strengthens my previous observation that one must either have ability *or* money, and suggests one step further: it is best to have a good measure of both. Having very little money might impede agency even when skill and self-efficacy exist; having a lot of money might impede the development of skill and self-efficacy to build agency beyond financial ability to pay.

The scale does not reflect aspects of food agency narrated by participants in this study; broadly, aspects related to structural constraints and strategies for resisting those constraints. For example, one might always be able “to decide what I would like to eat at any given time,” or “feel confident choosing between” two similar products (as the scale asks), but might not be able to access the ingredients to prepare what they would like to eat, or have the money to buy two similar products that they could otherwise easily choose between. If agency is individual action *within* larger structures, it must include how well that action works in concert with – or in resistance to – those structures.

The gaps in the scale – around structure, strategy, and aspiration – suggest the scale is thoroughly measuring actions related to *cooking*, but not necessarily the varied and related actions that lead to cooking. In short, the scale is not reflective of this particular food reality – some of the ways in which this group is limited, the ways in which they resist, and what they aspire to know and do for more effective resistance. Our research team recently began discussing whether the scale would be more appropriately labeled something like “cooking action”;

this study supports this conclusion, that the scale measures food preparation agency but perhaps does not thoroughly measure the context in which food preparation is made possible. One way to deal with this would be to adjust the scale to incorporate more qualitative data, data collected in a similar way as the original constructs, but with a different population. Given the amount of effort that has been put into developing and validating the current scale items, however, updating it might not be a feasible option, at least until there is more evidence that the scale measures components of agency for specific groups. And perhaps a scale could never fully capture these realities, and understanding them will always require complementary qualitative data.

It isn't necessarily important that all items appear on the scale. Many of them reveal the specific ways in which people enact agency, and those will change depending on individual, community, and environment. But it *is* important for agency to take into consideration *how well* people enact that agency: how well they employ strategies. If agency is the ability to act, we must understand the structures that people act against.

Overarching question: How does applying the theory of food agency with low-income participants of color in Philadelphia advance the development and validation of this model?

The people I spoke to over the course of this study are smart and intentional about how they get and eat food. They are not the stereotypical, passive, poor victims of the food system. While this is true, it is also true that

socioeconomic status is an important aspect of food agency. It can play out differently in different contexts. For example, a colleague is conducting similar food-related interviews with low-income Black women in North Carolina, and has found completely divergent dynamics of where people shop; that is, they certainly are not shopping at Whole Foods (S. Bowen, personal communication, June 24, 2016). It is critical to listen to the perspectives of low-income people when analyzing or solving problems related to income and meal preparation. In my research, participants see and reflect on the ways that income constrains them, but their focus is not on judgment of individual choice; rather, it is on how they can be empowered to make choices. If having food agency is “to be empowered to act throughout the course of planning and preparing meals within a particular food environment” (Trubek et al., 2015), then money is part of that empowerment; one needs at least a minimum baseline to build upon with skill. To eat what you want, you need to have either time/ability – to shop and cook – or money – to buy food prepared. (Failing these, you need someone willing to cook for you for free.) Income might trump the need for food agency; food agency might be the only way to effectively manage a lack of income. As Nash (2005) points out, non-human forces in agency are not purely external; especially not, I would argue, when those forces affect what is ingested.

With food, people have things they will and won't compromise on. We can see this in everyday life: the locavore who cannot give up coffee; the vegetarian who eats bacon. Francine will not spend money at restaurants but will

buy prepared salad dressings she deems too expensive if she finds them truly tasty. Kelly will eat sweet potatoes for weeks because they're cheap and seasonal, but refuses to buy salmon unless it is wild-caught. The mistake, which I see frequently in mainstream media, is to assume that if someone is poor, the things that they will (or must) compromise are quality and healthfulness. People may conceive of quality and health in slightly different ways, but everyone I spoke to negotiated their own eating patterns to maximize the perceived quality of their food, and often that quality (indicated by things like freshness or lack of industrial processing) was directly linked to health.

Nearly everyone expressed this link between health and food. This is hardly surprising in participants of a Healthy Cooking Techniques class, but it was not a subject I emphasized in my questions, and perhaps demonstrates the extent to which food and health have been tied together in modern America. The non-linear relationship between health, nutrition, and cooking, outlined in the literature review, was clear in this study. All the interviewees are trying to figure out these two issues, of how to feed themselves and how to do it healthily, when the two endeavors are not always entirely compatible, especially as taste, convenience, and skill come into play. To feed oneself is a daily and lifelong task; to do it "healthily" (at least as one understands health) requires an extra set of skills related to cooking technique, nutrition comprehension, and sometimes a battle with personal preference for "less healthy" dishes. These questions are perhaps never "solved," but rather re-negotiated every day, depending on

shifting circumstances, opportunities, and pressures. Although health is not theorized as part of food agency, I wonder how much food agency can serve a person if it does not also serve their health.

Even in a small group – where everyone lives in the same city; lives either in Mantua or attends Drexel University; is either in their early twenties or in their fifties; has self-selected for an interest in healthy cooking education – there are so many permutations of circumstance and strategy, of skill and constraint. The constant, more or less, is aspiration: the wish for greater personal proficiency with making and preserving food. Aspiration has policy implications. This group, for the most part, wants to be supported by building personal capacity, and did not focus on entitlement programs like food stamps. They see opportunity for increased agency in changing their own skill level, not changing the larger forces. This outlook makes sense for them; it is what they can control. But from a systems perspective, to increase agency for many, it also makes sense to work on structures. From these interviews, I would argue for 1) higher quality food with 2) transparent information about its origins, that is 3) more easily accessed in urban neighborhoods, as well as 4) basic cooking education for whoever wants it, perhaps alongside 5) gardening education and community garden plots.

The connection between race and food agency remains complicated, from both a qualitative and quantitative perspective. It is worth looking more deeply at this connection in the future, considering that people of color in this country

experience disproportionate barriers to food access and to health. Food agency could be a unique way of understanding how, and how well, American minorities navigate their food environments.

Why worry about food agency and low-income people of color? It is an issue of social justice. Some groups are less able to feed themselves satisfactorily, in a way that feels personally and culturally appropriate. As Megan Carney (2015) points out in *The Unending Hunger: Tracing Women and Food Insecurity Across Borders*, “State responsibility for food security – as with other aspects of populations well-being – is increasingly being transferred to individuals, a process that disproportionately implicates women and burdens them” (p. 196). More and more we ask people to take responsibility for their own physical health, in a system that makes it harder, not easier, to eat well. And we do not even know definitively that eating well will allow people to *be* well. Public health research has recently delved into the question of whether disparate environmental exposure to toxins might be causing or exacerbating health issues within underprivileged communities (Brulle and Pellow 2006).

For our research team, one of the goals is simply to understand what is happening in people’s food lives. But that understanding has serious implications for food systems solutions, because how can we solve issues of access, or inequality, or health, if we don’t know what is actually happening in people’s lives? And if some have low levels of personal agency, how can we support the expansion of that agency? In other words: what is the recipe for

developing food agency so that people can enact their highest potential within the food system? The answer is likely slightly different for everyone, and perhaps best posed to the people themselves. In the absence of large structural change, some of the answers seem to be: skill, technique, information. Things they can use to make decisions for themselves.

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APPENDICES

Appendix A: Participant Research Information Sheet

Title of Study: Recipe for a More Inclusive Theory of Food Agency:
Measuring and Increasing Cooking Capability

Principal Investigator (PI): Caitlin Morgan

Faculty Sponsor: Amy Trubek, PhD

Funder: United States Department of Agriculture Hatch
Grant

Introduction

You are being invited to take part in this research study because you have enrolled in the summer cooking course being offered through Drexel University and the Dornsife Center for Neighborhood Partnerships. This study is being conducted by Caitlin Morgan at the University of Vermont (UVM) and Drexel University. Her work is being completed under the guidance of Dr. Amy Trubek, who is the faculty director of the Food Systems Graduate Program and an associate professor in the Nutrition and Food Sciences Department at UVM. The study is co-sponsored by the United States Department of Agriculture (USDA) and the University of Vermont's Food Systems Graduate Program.

Purpose

We seek to better understand "food agency," or how capable someone is to feed themselves in an intentional way, and how food agency is enacted depending on variables like income, ethnicity, and knowledge. We conduct this research to explore the complex interactions that affect how and why a people cook for themselves—or don't.

Study Procedures

If you take part in the study, you will also be observed in the cooking lab classroom. You may be asked to fill out a survey about your cooking and food experiences and to participate in one-on-one interviews.

Example interview questions might be "What kinds of things prevent you from cooking?" and "If you had all the time and money you

wanted, how might you eat differently than you do now?" You have the option of not answering questions that you do not wish to.

Your participation will take place this summer during the cooking course, with one final interview session in the fall. You will be asked to complete the Food Agency Scale survey three times, at the beginning of the course, at the end, and during the fall interview. The survey will take about 20 minutes to complete each time. The interviews will take approximately one hour each.

Benefits

As a participant in this research study, there may not be any direct benefit for you; however, information from this study may benefit other people now or in the future.

Risks

We will do our best to protect the information we collect from you during this study. We will not collect any information that will identify you to further protect your confidentiality and avoid any potential risk for an accidental breach of confidentiality.

Costs

There will be no costs to you for participation in this research study.

Compensation

For taking part in this research study, you will be reimbursed for your participation. Upon completion of the course, you will receive a gift card of \$20. If you complete the two interviews and surveys, you will receive an additional \$50.

Confidentiality

All information collected about you during the course of this study will be stored with a code name or number so that we are able to match you to your answers. At the end of the survey, you will be asked for some information about yourself that will be used for purposes of awarding extra credit or reimbursement. Information gathered for this purpose will be stored separately from your survey.

Information collected about you will be kept in a locked cabinet or a password-protected site at the University of Vermont for up to 5 years. The only people who will have access to this cabinet will be members of

the Food Agency research team (Dr. Amy Trubek, Dr. Cynthia Belliveau, Caitlin Morgan, and Maria Carabello).

Voluntary Participation/Withdrawal

Taking part in this study is voluntary. You are free to not answer any questions or withdraw at any time. You may choose not to take part in this study, or if you decide to take part, you can change your mind later and withdraw from the study.

Questions

If you have any questions about this study now or in the future, you may contact me, Caitlin Morgan at the following phone number (802) 881-8518. If you have questions or concerns about your rights as a research participant, then you may contact the Director of the Research Protections Office at (802) 656-5040.

Participation

Your participation is voluntary, and you may refuse to participate without penalty or discrimination at any time.

Appendix B: Interview Question Guides

Introduce project, provide research information sheet, and assure interviewee that responses will remain confidential, including from the course instructor.

Introduce the idea of food agency, that it is someone's ability to act (or not), affected by themselves, their families, and the larger world, and that these questions are designed to dig a little deeper into how and why people cook or don't.

First, I am going to ask you a few questions about your memories and thoughts about food.

Describe your favorite dinner.

Tell me about your experiences with cooking, generally. (How did you learn?)

How did you eat as a child? Do you eat differently now? (Was there a change in how you think about food?)

Now I'm going to ask a couple questions about the action of getting and preparing food.

Describe what an average day in food looks like for you.

On a given day, what prevents you from cooking?

...What encourages you to cook?

Where do you shop for groceries or prepared foods? What kinds of things do you buy?

How do you normally feel when you are cooking?

Do you cook for anyone else, other than yourself?

What kinds of things do you normally cook?

Finally, I'm going to ask some questions about how you think about cooking.

What is the most important thing to consider when planning a meal?

Why did you sign up for this cooking course?

What are you excited about learning/looking forward to?

Is there anything you hope the Chef will cover?

Do you think you will make any changes in how you cook or eat, after taking this course?

If you had as much time and money as you wanted, how would you eat differently than you do now?

As part of this project, we are trying to figure out how to measure food agency. On a scale of 1 to 10, 1 being very constrained and unable to make any food choices the way you want, and 10 being totally free to make choices the way you want, where do you feel you fall on that spectrum?

Anything else that comes to mind, that we haven't covered so far?

Follow-Up Interview Question Guide

Remind about project and consent. Remind about the idea of food agency.

So, the class was called "Healthy Cooking Techniques." In retrospect...

What did you learn about health?

What did you learn about cooking?

There were certain ways in which you were being taught (e.g. mise en place). What do you think of those teaching methods?

What were your main takeaways from the class?

Now I'm going to ask a couple questions about the action of getting and preparing food, which you might remember from last time.

Describe what an average day in food looks like for you.

What helps you eat and cook the way you want to?

What is your biggest obstacle to eating and cooking what you want?

Where do you shop for groceries or prepared foods? What do you buy?

How do you usually feel when you are cooking?

What do you usually cook?

Finally, I'm going to ask some questions about how you think about cooking.

What is the most important thing to consider when planning a meal?

Have there been any changes in the way you cook after taking the class?

Have there been any changes in what you eat?

If you could change one thing about your life, that would help the way you eat or cook in some way, what would it be? Why?

As part of this project, we are trying to figure out how to measure food agency. On a scale of 1 to 10, 1 being very constrained and unable to make any food choices the way you want, and 10 being totally free to make choices the way you want, where do you feel you fall on that spectrum?

Anything else that comes to mind, that we haven't covered so far?

Focus Group Question Guide

Remind about the project, consent, confidentiality. Ask them to keep this conversation confidential, even from each other, so that everyone may speak freely. Encourage them to agree or disagree with each other's statements to see how much any one thing is true for the group.

So, the class was called "Healthy Cooking Techniques." In retrospect...

What did you learn about health?

What did you learn about cooking?

There were certain ways in which you were being taught (e.g. mise en place). What do you think of those teaching methods?

What were your main takeaways from the class?

Now I'm going to ask a couple questions about the action of getting and preparing food, which you might remember from last time.

What helps you eat and cook the way you want to?

What is your biggest obstacle to eating and cooking what you want?

Where do you shop for groceries or prepared foods? What do you buy?

How do you usually feel when you are cooking?

What do you usually cook?

Finally, I'm going to ask some questions about how you think about cooking.

What is the most important thing to consider when planning a meal?

Have there been any changes in the way you cook after taking the class?

Have there been any changes in what you eat?

If you could change one thing about your life, that would help the way you eat or cook in some way, what would it be? Why?

As part of this project, we are trying to figure out how to measure food agency. On a scale of 1 to 10, 1 being very constrained and unable to make any food choices the way you want, and 10 being totally free to make choices the way you want, where do you feel you fall on that spectrum?

Anything else that comes to mind, that we haven't covered so far?

Appendix C: Survey Administered to Research Participants

Survey

First name: _____

Please answer every question. Thanks for your time!

	Disagree strongly	Disagree moderately	Disagree mildly	Neutral	Agree mildly	Agree moderately	Agree strongly
Question	1	2	3	4	5	6	7
I find cooking a very fulfilling activity.							
I change my plans for what I will cook because of the availability of ingredients.							
My social responsibilities prevent me from having the time to prepare meals.							
I have a hard time finding enough time to prepare the food I'd like to eat.							
I prefer to spend my time on more important things than food.							
I feel capable cooking many types of dishes.							
If something goes wrong while I'm cooking, I am easily thrown off.							
My family responsibilities prevent me from having time to prepare meals.							
I am inspired to cook for other people, like my family or friends.							

0	For me, cooking is just something to get through as quickly as possible.							
1	My kitchen or prep space is always too cramped or crowded.							
2	I often seek out new eating experiences							
3	If I try making a new type of food and it does not come out right, I usually do not try to make it again.							
4	I plan the meals I am going to make.							
5	I feel limited by my lack of cooking knowledge							
6	I wish that I had more time to plan meals.							

		Disagree strongly	Disagree moderately	Disagree mildly	Neutral	Agree mildly	Agree moderately	Agree strongly
		1	2	3	4	5	6	7
7	When presented with two similar products to purchase, I feel confident choosing between them.							
8	I can always manage to decide what I would like to eat at any given time.							
9	If something goes wrong while I am preparing food, I can still find the means to get a good result.							

0	My job responsibilities prevent me from having the time to prepare meals.							
1	I rely on someone else to prepare the majority of my meals.							
2	When preparing food it is easy for me to accomplish my desired results.							
3	If everything else is equal, I choose to cook rather than have food prepared by someone else.							
4	When I shop for food, I know how I will use the ingredients I am purchasing.							
5	I feel burdened by having to cook for other people, like my family or friends.							
6	I gather all my ingredients before I start cooking.							
7	I am confident creating meals from the ingredients I have on hand.							
8	When I am confronted with a problem in food preparation, I can usually find several solutions.							
9	Before I start cooking, I usually have a mental plan of all the steps I will need to complete.							
0	I prefer to buy prepared food or go to restaurants rather than cook for myself.							
	I think a lot							

1	about what I will cook or eat.							
2	The need to clean up afterwards makes me think twice about preparing food.							
3	I am involved in daily meal preparation.							

1) Age (in years):

2) Sex (circle one):

Male

Female

Other

3) Race (circle one or more):

Asian/Pacific Islander

Black/ African-American

Caucasian

Hispanic

Native American/Alaska Native

Not listed above:

Decline to Respond

4) Highest level of education completed (circle one):

Some high school

High school/GED

Some college
College (Bachelor's degree)
Some graduate school
Graduate school/professional degree

5) Including yourself, how many people currently live in your household?

6) Approximate yearly household income (circle one):

Less than \$25,000
\$25,000-35,000
\$35,000 to \$50,000
\$50,000 to \$75,000
\$75,000 to \$100,000
\$100,000 to \$125,000
\$125,000 to \$150,000
\$150,000 or more

7) Roughly how many meals do you prepare for yourself and others every week?

8) Which city do you currently live in?

9) What is your current occupation?

Appendix D: Updated Scale Items (Summer 2016)

Table *.** Final Food Agency Scale (FAS) with factor loadings from full (combined) dataset.

Code*	Content	Factor 1 (Self Efficacy)^a	Factor 2 (Attitude)^a	Factor 3 (Structure)^a
<i>FSE2</i>	I feel limited by my lack of cooking knowledge. [†]	0.54	0.21	0.08
<i>FSE3</i>	I can always manage to decide what I would like to eat at any given time.	0.45	-0.05	0.13
<i>FSE6</i>	When preparing food, I am confident that I can deal with unexpected results.	0.74	0.09	-0.02
<i>FSE7</i>	When preparing food it is easy for me to accomplish my desired results.	0.81	0.02	-0.04
<i>FSE8</i>	In preparing food, I can solve most problems with enough effort.	0.75	0.10	-0.07
<i>ISCO1</i>	I am comfortable preparing food.	0.71	0.19	-0.03
<i>ISCO5</i>	I know how to use the kitchen equipment I have.	0.73	-0.05	0.02
<i>ISMP2</i>	I am involved in daily meal preparation.	0.51	0.06	0.13
<i>ISMP3</i>	When I shop for food, I know how I will use the ingredients I am purchasing.	0.59	-0.10	0.07
<i>ISMP5</i>	I am confident creating meals from the ingredients I have on hand.	0.77	0.02	-0.03
<i>ISMP7</i>	Before I start cooking, I usually have a mental plan of all the steps I will need to complete.	0.57	-0.07	0.00
<i>ISSH4</i>	When presented with two similar products to purchase, I feel confident choosing between them.	0.64	-0.09	0.05
<i>ISSH5</i>	I know where to find the ingredients I need to prepare a meal.	0.77	-0.12	0.01
<i>FSE11</i>	I find cooking a very fulfilling activity.	0.14	0.78	-0.14
<i>FSE14</i>	For me, cooking is just something to get through as quickly as possible. [†]	-0.08	0.81	0.08
<i>FSE16</i>	If I try making a new type of food and it does not come out right, I usually do not try to make it again. [†]	0.13	0.30	0.07
<i>HO4</i>	I think a lot about what I will cook or eat.	0.16	0.36	-0.10
<i>HO5</i>	I prefer to spend my time on more important things than food. [†]	-0.12	0.69	0.13
<i>ISCO3</i>	If everything else is equal, I choose to cook rather than have food prepared by someone else.	0.28	0.41	-0.03
<i>ISCU4</i>	I feel like cooking is a waste of effort. [†]	0.08	0.63	0.06
<i>STR2</i>	I am inspired to cook for other people, like my family or friends.	0.23	0.60	-0.23
<i>STR3</i>	I feel burdened by having to cook for other people, like my family or friends. [†]	-0.08	0.56	0.21
<i>ISMP1</i>	I wish that I had more time to plan meals. [†]	0.02	-0.20	0.65
<i>STR4</i>	I have a hard time finding enough time to prepare the food I'd like to eat. [†]	-0.01	0.03	0.76
<i>STR8</i>	My family responsibilities prevent me from having time to prepare meals. [†]	-0.05	0.12	0.53
<i>STR9</i>	My social responsibilities prevent me from having the time to prepare meals. [†]	0.00	0.00	0.70
<i>STR10</i>	My job responsibilities prevent me from having the time to prepare meals. [†]	-0.03	0.00	0.82

*Item codes refer to original item classification; see Appendix ***.

[†]These items should be scored in reverse.

^aLoadings are from Maximum Likelihood Exploratory Factor Analysis with 3 factors and oblique rotation (promax) of the full (943 person) survey sample described in Section ***. Largest loadings are in **bold** for clarity.