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Defining Food Agency: An Ethnographic Exploration of Home and Student Cooks in the Northeast

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DEFINING FOOD AGENCY:
AN ETHNOGRAPHIC EXPLORATION OF HOME AND STUDENT COOKS IN THE NORTHEAST

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Abstract

According to popular and academic sources, home cooking is in decline. Nutrition and public health scholars concern that a loss of cooking abilities may diminish individuals' control over their food choices, thus contributing to poor health outcomes. Yet, there are still many unanswered questions. What skills, strategies, and knowledge sets are required to cook a meal on any given occasion? What capacity separates those who cook with ease from those who struggle to incorporate cooking into their daily routines? I propose that this difference is determined by an individual's capacity to employ a range of cognitive and technical skills related to meal preparation. I call this capacity "food agency". Drawing upon discourses of human agency developed in the social sciences, this food-specific theory considers how a home cook employs cognitive skills and sensory perceptions, while navigating—and shaping—various societal structures (e.g., schedule, budget, transportation, etc.) in the course of preparing a meal. Thus, to have food agency is to be *empowered to act* throughout the course of planning and preparing meals. To better understand the form and function of food agency in everyday contexts, this thesis has pursued two ethnographic explorations.

The first study explored food agency from the vantage of *routine performance* by looking at the everyday practices of twenty-seven home cooks in the Northeastern United States. Data was collected through videotaping and observing the home cooks as they prepared typical dinnertime meals, followed-up with semi-structured interviews. The data has revealed a working model of the interrelated components seen as essential to consistent cooking practice, and thus to food agency—a conglomeration of skills, techniques, and strategies; structural and sensory guidelines; confidence and self-efficacy. All the home cooks were found to possess a basic scaffolding for food agency, yet the degree to which each had developed fluency in any given area was contingent upon personal experience. This supports the view that food agency is an actively acquired and dynamic capacity best understood as fluid rather than dichotomous.

The second study explored food agency through *guided progression*, by following a cohort of eight college students at the University of Vermont as they learned how to cook during a semester-long food and culture course. Data was collected through videotaping the students as they cooked, and by interviewing them about their food behaviors and experiences at the beginning and end of the semester. The findings outlined the students' various trajectories as they progressed in many of the component areas involved in food agency—for example, skills, techniques, organizational strategies, sensory engagement, and a sense of individual and collective efficacy around meal preparation. While the longitudinal scope of this study was limited, these results suggest a need to develop similar curricula for hands-on cooking interventions that can be offered in a more diverse range of settings and contexts.

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CHAPTER ONE

INTRODUCTION

During the earliest months of my work on this project in the spring of 2014, a new life-hack from California's Bay Area was beginning to create a lot of buzz in the media (Widdicombe 2014). Unlike typical inventions emerging from this part of the country, the product under discussion—Soylent—was not fueled by any form of electricity. In fact, it actually *was* a source of fuel. This synthetic meal alternative—now in its fifth formulation, "Soylent 1.5"—has been engineered by founding developer Rob Rhinehart to efficiently satisfy all of an individual's nutritional requirements in three or four glasses a day. Essentially, this enhanced version of adult formula promises consumers the opportunity to live in a world where they will never again have to worry about food.

When I first heard about Soylent, I was in the process of devising my proposal for this project. In response to speculations about the demise of home cooking, I was driven by a desire to recognize and appreciate the complex engagements that go into preparing and cooking meals on an everyday basis. I wanted to show that home cooking still happened, and better understand what it looked like when it did. I wanted to explore how home cooks' actions and engagements, skills and strategies, might signify a sense of agency around their food practices. More than the upsurge of fast food consumption and other meals eaten on-the-go, Soylent seemed to directly oppose everything that I considered to be central to this notion of "food agency". It represented the outsourcing of an individual's daily food choices and responsibilities to the industrial producers and

processors at the outer tiers of the food system; complete detachment, total passivity. However, since it is often said that complex concepts are best understood in their absence, I recognized that experiencing what it was like to *not have* "food agency" might help me better define and explore what it means to *have* it. So, it was in the spirit of research that I committed to living on Soylent for a week.

My week on Soylent was very informative, even if not entirely enjoyable. It reinforced many of my early ideas, challenged a few assumptions, and inspired new insights. First of all, despite giving up almost all of my involvement in procuring, planning, and preparing my meals I still had to engage with meal preparation on a basic level—that is, I had to scoop, blend, and pour my meals a couple times each day. This served to remind me that preparing meals involves a complex and nuanced range of practices that deserve further study and consideration. My eating experiences themselves were quite mundane, but they were not without sensory experiences and associations. Each glass of that slightly viscous beige liquid, with its musty and malty taste, recalled vivid memories of afternoons spent at my grandmother's—and, of the box of perpetually stale graham crackers that she pulled out of the cupboard on each of my visits.

In the end, living on Soylent showed me that preparing even the most basic meals involves some degree of active engagement, some form of involvement, and some amount of agency. It reminded me that preparing and eating meals is tied to a number of areas of everyday life that extend well beyond the realm of the kitchen—from marking and maintaining daily routines, to providing a means for socialization, to engaging with

one's senses and memories. Building from the understanding that even the most basic acts of meal preparation require some amount of personal agency to be expressed around food, this thesis will explore a number of related objectives.

Research Objectives

My primary goal in this thesis project is to define "food agency" from two distinct vantages. Building upon theoretical frameworks and lessons determined through a multidisciplinary literature review, I first explore this capacity through *routine performance* by looking at the typical dinnertime routines of home cooks across the Northeastern United States. In this exploration, based on the ethnographic methods of videotaping, interviewing, and participant observation, I seek to answer the following questions: 1) how can "food agency" be defined from within the context of everyday cooking practices? 2) how can the everyday practices of home cooks reveal a spectrum of "food agency" capacities? And, 3) how do structural barriers in the food environment both empower and constrain a home cook's expressions of "food agency"?

In the second study of the thesis, I explore "food agency" through the lens of *guided progression*, by following the progress of a group of undergraduate students as they learn to cook over the course of a semester-long food and culture lab. Again using the ethnographic methods of videotaping, interviewing, and participant observation, this second study pursues a distinct yet related set of questions: 1) given the notion of a spectrum, how can a student cook's development of "food agency" be captured and tracked over the course of a semester? And, 2) how does the relatively controlled

environment of a University foods lab influence students' experience as "food agents"?

Organization of the Thesis

The thesis, to follow, is organized into seven chapters. Following this introductory chapter, a comprehensive and multidisciplinary literature review is presented in Chapter 2. Chapter 3 then provides an overview of the methodology guiding the thesis project as a whole, and details the methods used for the study of home cooks, which is subsequently presented in Chapter 4. The methods for the study of student cooks are covered in Chapter 5, serving as a natural transition into Chapter 6, which discusses these findings. Finally, Chapter 7 serves to summarize the main findings of both of the thesis' main studies, and situates the newly theorized idea of "food agency" within the context of a possible public health intervention.

CHAPTER TWO

LITERATURE REVIEW

"Cooking is a language — sometimes it seems that so much of the work we do as consumers is to read and translate it. But as with cooking itself, decoding food discourse is better — easier to digest — with the right tools."

– Claude Lévi-Strauss

In the course of studying any everyday activity, context matters. So before jumping into the details of my two studies, I first explore the broader literature—the broader context—to both support and differentiate my food systems approach to the subject of everyday home cooking practice. My first two sections lay out the landscape of the literature, providing a synthetic review of media and academic discourses on home cooking practice. The goal of these first sections is to present a comprehensive overview of what has been said and done about home cooking in the past few decades. From these broad-brush sections, I move on to paint a more fine-grained picture of cooking as it has been discussed within the disciplinary frames of public health and cultural studies. I then edge towards the theoretical, piecing together insights from scholarships as diverse as sensory studies, the active learning of skill, as well as a multidisciplinary look at the theoretical constructs of structure and agency. I close this literature review by summarizing the material covered, and restating the novelty and significance of approaching the topic of everyday home cooking practice from a food systems lens. If cooking is indeed a "language," as Lévi-Strauss (1969) suggests, then through this literature review I aim to provide the tools to decode it—the tools to make sense of

cooking practice, and all that is needed for it to happen, within the context of everyday experience.

Home Cooking and the Media

I first started thinking about cooking from an academic perspective in 2011, while enrolled in a public health seminar during my sophomore year of college here at the University of Vermont (UVM). My final assignment for the course was to write a paper and to prepare a presentation overviewing a controversial public health issue. Given the nature of my interests as a nutrition major, I decided to look into the promotion of cooking skills as a preventative health measure. From the moment I began my research, cooking became my own version of the Baader-Meinhof phenomenon[1]—once the topic was on my radar it seemed that cooking was mentioned pretty much everywhere I looked, especially in the media. In this first section I overview some of the most prominent mentions of cooking in the popular media, and conclude with a brief discussion about what is implicated by all the print space the topic has received in the past decade. While the reputability of media sources is often disputed by academics, a close analysis of popular discourse is essential to understanding the complete picture of home cooking since, after all, "[w]e experience and understand our food, cooking, and eating practices not only through those around us, but also through the media… (Short 2006:20)"

[1] The Baader-Meinhof phenomenon, or "frequency illusion," refers to the phenomenon that occurs when something you encounter for the first time, or first learn about, suddenly seems to appear everywhere in the course of daily life. The more colloquial name came about in 1994 when a commenter on an online discussion board for St. Paul's *Pioneer Press* experienced the phenomenon after being to successive references to the ultra-left-wing German terrorist group, "Baader-Meinhof" (Pacific Standard 2014).

Mark Bittman, a *New York Times* columnist and longtime proponent of cooking for better health, was one of the first media figures to capture my attention. Bittman has authored six cookbooks, most in his *How to Cook Everything* series, with the aim of making the practice of home cooking more approachable for the average American. For years, through his *New York Times'* Minimalist columns, and later with lengthier op-ed pieces, Bittman has positioned himself as somewhat of a national champion for home cooking practice. From urging shoppers to head to their nearest restaurant supply stores to equip their kitchens on the cheap (2007), to telling them how to get by with minimal space (2008), to seeking to falsify the myth that junk food is cheaper than "real" food (2011a), to presenting a "physical theory of everyday cooking" which aims to help cooks navigate the time-work continuum (2014a), to declaring the ten reasons why *Cooking Solves Everything*... (2011b); he has sought to dismantle every possible excuse that could be used to complete the sentence, "I can't cook, because…" His colleague, Tara Parker-Pope (2008) even ran an exposé on "Mark Bittman's Bad Kitchen," effectively sending the message to loyal *New York Times* readers that if Bittman can get by with a cramped kitchen, they can too.

Prominent American food journalist Michael Pollan has also taken interest in the topic of home cooking. In the summer of 2009, Pollan authored a piece for the *New York Times Magazine* in which he outlined his concerns surrounding what he views as cooking's shift from an everyday practice to a spectator sport. As Pollan sees it, Americans have become completely content to watch hour-long shows on the Food

Network or Cooking Channel—portraying everything from cooking competitions to a celebrity chef's personal quest to find the best burger joint—yet are less likely to reserve an extra thirty minutes to cook meals for themselves. Pollan argues that this shift in Americans' time use reflects a considerable shift in values, or else infers the question: who can argue that they do not have time to cook, if they have time to watch others do it? Beyond a reprioritization of societal values, Pollan argues that part of this gap between interest and action is that today's generation of cooking shows and celebrity chefs are vastly different from what earlier generations coveted in Julia Child. When Julia launched her extremely popular show "The French Chef" in 1963, she assumed the role of America's most beloved culinary pedagogue; bolstering the inner-cook in all her viewers through demystifying French cuisine and emanating the simple joys of kitchen work. However, as Pollan notes, the focus of most contemporary cooking shows has shifted in a different direction altogether: away from pleasure and towards convenience. In support of this point he references the "dump-and-stir" shows hosted by cooking personalities like Rachael Ray and Sandra Lee, who celebrate shortcuts as the home cook's number one priority. In some way, the change in the attitudes of these contemporary hosts suggests that more involved meal preparations (for example, the ones undertaken by Child) have become unnecessary and burdensome. Pollan speculates that this shift within the television genre may help explain why the considerable increase in cooking shows on cable networks has not translated into an increase in Americans' motivations or abilities to cook.

However, for Pollan, this article was only the *amuse-bouche,* a precursor to his latest full-length book, *Cooked: A Natural History of Transformation* (2013)—the release of which, of course, received Mark Bittman's high praise (Bittman 2014b). In *Cooked*, Pollan takes a more explorative look at home cooking and moves beyond a cursory concern that Americans have abandoned the kitchen for the couch. The book itself is structured around the author's own self-education in the kitchen—a domain the book jacket claims he had previously given little thought to—as he apprentices under various culinary experts, and then tries his hand at mastering the art of cooking with each of four basic elements: fire, water, air, and earth. In each section Pollan intersperses the story of his culinary education with the work of anthropologists, scientists, historians, and others who have devoted much thought to cooking. These references provide analytical support for Pollan's overarching argument, which is that cooking is a transformative activity—as food is altered through applications of heat or the inoculation of microbes, so too is the life of the cook. For Pollan, cooking is a grounding activity that is all about connection (415): between self and others, culture and nature, sense and intellect, as well as the health of people and the planet. Pollan argues that to cook, in a modern society where this once essential act has become optional, is to issue a "declaration of independence" (414). It is to take up an activity that is a remedial "antidote to abstraction" (407) in a capitalist society increasingly promoting the division and outsourcing of any and all manual labors.

Due in no small part to Pollan's eloquent and engaging style, *Cooked* is both a pleasurable and informative read from page to page. Yet as a whole the book is somewhat

wanting. In an insightful review published in the *New York Times* just days after the book's American release, British food writer and historian Bee Wilson (2013) raised an important critique in regards to the overall reach of the book. As Pollan goes to great lengths to make it clear to readers that they would be remiss to give up on home cooking—and, the many subsidiary benefits therewith—he does very little to suggest ways to make home cooking appear doable or practical on a nightly basis for those not currently engaged in the work. As Wilson states, "[t]he big message of 'Cooked' is: Cook more. But Pollan's angle widens the gap between cooks and noncooks (Wilson 2013)." In his meditation over the chopping and slow browning of onions, Pollan seems to have forgotten that for home cooking to appear accessible most Americans need tips for reducing the time it takes, not increasing it. This is not the first time Pollan has been critiqued for losing sight of the broader context when it comes to complex and multivalent food issues. As Guthman (2007) argues in her essay for *Gastronomica*, while Pollan and other popular authors often give passing mention to the complex political roots of the food issues they write about, they then go on to focus their central messages on valorizing a certain behavior (e.g., eating locally and organically, cooking more meals at home) without delineating a reasonable path for getting there within the current system. So, while Pollan's previous work, *The Omnivores Dilemma* (2006), made Guthman want to "eat Cheetos," perhaps his latest will have her craving the microwavable entreés he denounces in *Cooked*.

Bittman and Pollan have clearly used any and all available media outlets to

venerate home cooking, yet others have recently responded with far more dissenting views on the subject. In an article written for "The Food Issue" of the *New York Times Magazine*, Virginia Heffernan (2014) pines for the days when defrosting dinners for children did not signify a mother's moral corruption. And, it turns out, it is not just working mothers who are growing weary of the home cooking prophets. In a piece published the next day in *Times* magazine Bill Saporito (2014) hashes out his own "…Case Against Cooking", which was notably included in the same issue as Bittman's "The Truth About Home Cooking" (Bittman 2014c). Saporito describes cooking as an archaic and unnecessary endeavor, as it has become increasingly convenient and economical to have fresh and healthy entrées delivered right to one's front door. Even former restaurant critic John Lanchester offers his repentance on indulging a culture of food messaging that has, perhaps, become "too much" (Lanchester 2014).

So, what to make of the substantial media presence cooking has secured in recent years? While authors like Bittman and Pollan have done much to bring attention to the topic of home cooking, like Wilson (2013) and Guthman (2007) I dispute the framing of their arguments. I worry that the way home cooking is being discussed in the media has become too distilled, too divisive, and too sensationalized. I feel that the decision to cook on any given night is not as simple or straightforward as Pollan and Bittman make it out to be, nor ought it have to be as cringe-worthy as the non-cooking authors suggest. From closely reviewing the media trends around home cooking, I recognize the need for a realistic, nuanced, middle-of-the-road approach to thinking and talking about the realities

of everyday home cooking that more appropriately acknowledges both the benefits and barriers to the work. To begin to frame such an effort, I next explore the contemporary state of home cooking in America through the more tempered lens of the academy.

The Contemporary State of Home Cooking in America

This section situates the media discourse on home cooking within broader trends that have been elucidated through national surveys and academic analyses. I specifically look at both quantitative and qualitative areas of research, which together help to comprehensively illustrate the day-to-day activities taking place in American kitchens from a macro and then micro lens. Additionally, I highlight important theoretical developments within the qualitative literature, which encourage new ways of looking at, thinking about, and studying cooking practice.

A Quantitative Overview

One of the most prominent shifts in American foodways in the past century has been the transition away from home-prepared meals (Bowers 2000; Cutler, Glaeser and Shapiro 2003; Guthrie, Lin and Frazao 2002; Jabs and Devine 2006; Smith, Ng and Popkin 2013; Zick and Stevens 2010). According to the latest American Time Use Survey (2013)—a nationally representative survey providing estimates of how, where, and with whom Americans spend their time—individuals in the U.S. are now spending an average of 27 minutes per day on home cooking activity (17 minutes for males, and 37 minutes for females), and another 7 minutes on food clean-up and other kitchen tasks (3 minutes for males, 11 minutes for females). These numbers reveal a significant reduction

from mid-1920's estimates, when women—as the dominant domestic meal preparers—were found to spend a daily average of 3 hours on kitchen work (Bryant 1996:363). To further demarcate this decline, Bryant's adjusted analysis of national time diary data reveals that in 1968 the average time spent on household food tasks had dropped to approximately 2 hours (370). By the late 1990's the decline of domestic food duties is predicted to have reached its bottom-level plateau at an average of 50 minutes per day for women (Zick and Stevens 2010; Smith et al. 2013); a prediction that thus far seems to be holding up against the most recent daily home kitchen work total of 48 minutes (U.S. BLS 2013).

As time spent on home meal preparation by females has decreased—and males' efforts have not compensated by any significant measure (Zick and Stevens 2010:1069)—the amount of food eaten outside the home (e.g., at restaurants, cafeterias, cafés, fast food joints, convenience locations, etc.) has subsequently increased. In 1929[2], 85.0% of Americans' total food purchases were allocated for home preparation and consumption with the remaining 15.0% reserved for foods eaten outside the home (USDA ERS 2014). According to the latest record in 2012, Americans are now spending just 53.5% of the total food budget on foods eaten at home and a historical high of 46.5% on foods eaten outside of the home (USDA ERS 2014). Collectively, the literature on U.S. food preparation trends frames the transition away from home meal preparation as the convergent result of a number of significant societal shifts, most notably: women

[2] 1929 was the first year for which the United States Department of Agriculture's Economic Research Service (USDA ERS) recorded statistics on the "Food Expenditures by Families and Individuals as a Share of Disposable Personal Money Income."

joining the workforce (Bowers 2000; Guthrie, Lin and Frazao 2002); a revolution in mass food preparation (Cutler, Glaeser and Shapiro 2003); and the increased length of an American workday (Schor 1991).

In response to these documented declines in the time and money invested in U.S. home meal preparation, many researchers have suggested focusing future dietary interventions on the food and eating occasions that occur outside of the home (Guthrie, Lin and Frazao 2002), and indeed many have done so. However, it is important to note that the majority of food expenditures are still going towards meals and snacks eaten and prepared within the home, and thus there is much to discuss, explore, and make sense of when it comes to the everyday reality of home cooking in American households. I now turn to the qualitative scholarship to pinpoint some notable developments, and to draw out important theoretical contributions to guide future inquiries in this area.

A Qualitative Overview

When contemplating the national statistics presented in the first part of this section, it is important to also take note of the great variance seen along sociodemographic lines and other contextual divides. For example, Americans falling into the lowest income quintile were found to be spending an average of 70% of their food budget on food items consumed within the home (U.S. BLS 2010), a far cry from the 2010 national average of 54.5% (USDA ERS 2014). Not only does breaking down the data in this way further challenge the stereotype that poor families mainly eat fast food and other ready-to-eat meals (see also: Alkon et al. 2013:130; Bowen, Elliott and Brenton

2014:23), it also issues a broader caution against the tendency to generate a homogenous picture of eating patterns from statistics alone. These data are essential for elucidating the broad trends in Americans' eating and meal preparation patterns, yet it is important to remember that many alternate experiences are lumped into the figures. As food historian Laura Shapiro notes, "[i]n culinary history, the ordinary food of ordinary people is the great unknown (Shapiro 2004:xxi)." While the national time use surveys, labor records, and documentation of household food expenditures offer a valuable portrait of overarching trends, if they are the only data sources referenced they can depict only a distilled version of what actually happens in the kitchens of "ordinary people". Quantitative analyses can tell us that many Americans are spending nearly as much of their food budget on eating occasions that occur outside of the home as those that occur within it, but they do not as clearly depict the details and circumstances surrounding those meals. When home cooking happens, what does it look like?

An ongoing ethnographic cooking study at the University of Vermont has generated important insights into this question. Dr. Amy Trubek and past graduate students Alyssa Nathanson (2008), Anthony Epter (2009), and Shauna Henley (2010) videotaped and looked closely at the practices of home cooks in urban, suburban, and rural areas of the Northeastern United States to discern what home cooking actually looks like on a day-to-day basis. Their efforts have generated many important findings. First, despite widespread concerns over a decline of cooking and a generational loss of even the most basic cooking skills (Lichtenstein and Ludwig 2010:1857), their project helps to

reframe cooking as an active everyday practice that is in *transition* rather than decline; shifting in response to the many other forces shaping modern life. Further, the research also emphasized that most Americans actually have a good baseline level of cooking skill and knowledge, and thus "[t]he decision *not* to cook may have little to do with not having the *capacity* to cook (Trubek 2012:30)." Instead, Trubek argues that the variability of the quantity and quality of cooking experiences from household to household and cook to cook—for example, one participant's relationship with cooking as an optional yet highly pleasurable activity, in opposition to her mother's more obligatory and burdened relationship with the task (Trubek 2012:27)—point to the complex and socially contingent nature of cooking. This sentiment was recently echoed by a team of sociologists at North Carolina State University who acknowledge, "[c]ooking is at times joyful, but it is also filled with time pressures, tradeoffs designed to save money, and the burden of pleasing others (Bowen, Elliott and Brenton 2014:21)." However, while both studies shared this basic acknowledgment they conclude with differing outlooks. Trubek finds hope in the "array of possible scenarios and contexts (Trubek 2012:31)" in which cooking occurs, yet the lack of guarantee that the labors of cooking are to be consistently met with an enjoyable (and appreciated) result left Bowen et al. (2014) questioning the "joy in cooking".

Qualitative contributions to home cooking scholarship certainly highlight inherent variabilities—both in the nature of the practice itself and the outlooks generated from thinking about it—but, they also provide important theoretical frameworks for

developing a more consistent and systematic approach for analytically capturing cooking's inherent diversity. To conclude this section I will review one such qualitative study that serves to guide future inquiries into the forms and functions of the practice, in the myriad contexts in which it occurs.

Frances Short (2006), an independent British writer and researcher, was one of the first to treat the home kitchen as a space worthy of serious scholarly inquiry. In order to move studies of cooking towards deeper empirical understandings—and, beyond what anthropologist David Sutton (2001) has referred to as "the realm of speculation"—Short undertook a two-part interpretive qualitative study to exhaust the many possible contexts of cooking, and to make analytical sense of what actually goes on in typical domestic kitchens. The first portion of her study was based upon semi-structured interviews conducted with seven British couples, which allowed her to explore the landscape of her topic horizontally, gathering a broad range of insights and responses. The second portion of Short's research honed in on key themes that emerged from the initial couples' interviews, allowing her to vertically explore and challenge her initial insights into the realities of everyday domestic kitchen work. Through these efforts Short sought to explore many basic questions regarding the day-to-day tasks of domestic cookery, and specifically made attempts to "understand people's cooking practices and skills, their approaches, beliefs, values and opinions" in relation to the ingredients and resources they use and their own conceptions of self as cook (10).

While Short's contributions are many, I have identified the following points to be

particularly illuminating in light of the goals and aims of my own thesis research. First, Short refutes the widespread notion that cooking is simple and straightforward, or "an uncomplicated and largely technical activity (52)." To effectively capture the complexities of the task, Short calls for cooking to be conceptualized as person-centred [*sic*], rather than task-centred. Here, Short differentiates the views:

> A task-centred perspective might see making bread as requiring or utilizing a range of techniques, including mixing, kneading, rolling and shaping. A person-centred approach, on the other hand, would take into consideration the perceptual, conceptual, emotional and logistical cooking skills used or required by the cook and the circumstances or context in which making the bread took place. It could then be shown how there are different skills involved in, for example, making bread with the help of a recipe, making bread without a recipe but with constant interruption or making it in a professional kitchen with state-of-the-art equipment but pressured for time. (Short 2006:61)

Such an approach takes into consideration not only the broad and diverse contexts within which cooking activity happens, but also suggests that a specific integration of skills and strategies is required to get the job done. For cooking to happen, Short argues that a combination of mechanical abilities and textbook knowledge be integrated with the perceptual and conceptual skills needed to plan, organize, and monitor the progress of one's cooking (55). This theoretical orientation has significant implications when it comes to answering the question of what capacities are actually required to cook a meal in today's modern context, a topic I will return to in a later section in making the case for "food agency".

In broadening how cooking skills are categorized and conceptualized, Short also highlights another key point that has been widely identified in qualitative approaches to

meal preparation and food choice—that is, making a meal is a *process* that necessitates engagements extending far beyond the home kitchen. While previous works have pared the act of meal preparation down into its various stages—from planning, to provisioning, to preparing, to plating, to packing up the leftovers (for example, see: Crowther 2013:163; Sobal and Bisogni 2009:S38)—Short argues that making sense of cooking through the interrelation of these stages reveals far more about the true nature of cooking, and of cooks, than considering any one act, or result, in isolation. In shifting focus from the meal to its maker, Short realizes the cook's "ability to design, adapt and cook 'off-the cuff' (115)," along with many other equally complex and variant approaches.

In summary, whether looking at national trends or individual kitchen activities the everyday practice of home cooking has undergone shifts in form, function, and frequency in response to other key societal trends occurring in the early twenty-first century. The next section explores the implications of this perceived transition within the specific context of public health.

Home Cooking and Public Health

"Let food be thy medicine and medicine be thy food."
– Hippocrates

Up to this point I have covered two main genres of cooking discourse, yet whether the source be popular or academic the importance of cooking has been overwhelmingly framed as a path towards improved health. In order to better understand the roots of this argument, I now review public health and nutrition scholarship focused on linking home cooking practice to health outcomes, as well as interventions that have

been designed to promote health through cooking education. As the authors of one study frame it, "[a] lack of competency in food preparation is a primary barrier in making more healthful food choices (Beets et al. 2007:288)."

The framing of cooking as part of a healthy lifestyle has become widely popularized, and through a close review of the literature I have condensed the health implications of home cooking into two main areas. One area of study has concerned findings that suggest individuals who lack the knowledge, skills, and/or motivation to prepare home-cooked meals often fall considerably short of the recommended guidelines for fruit and vegetable consumption (Brown and Hermann 2005; Crawford et al. 2007; Hughes, Bennett and Hetherington 2004; Larson et al. 2006; Larson et al. 2009). The second area compounds upon this by highlighting that non-cooks are also often made to rely on pre-prepared food sources, which are generally much higher in unhealthy additives such as saturated fats, processed sugars, and sodium (Condrasky and Hegler 2010; Lang and Caraher 2001; Soliah, Walter and Jones 2012). Along these lines, many researchers have found that individuals who cook regularly are able to retain greater autonomy over the amount and variety of foods they eat, an important tactic for maintaining a healthy diet (Beagan et al. 2015:35; Bisogni et al. 2012:285; Carabello 2013:15; Simmons and Chapman 2011:1184).

The combined effect of lower intakes of healthful, and higher intakes of unhealthful, ingredients by individuals who cook infrequently has warranted concern within the public health community. However, what is the evidence to show that cooking

can actually make a difference? If these individuals cooked their own meals would they actually be eating any healthier? According to the literature, yes. Swiss researchers Hartmann et al. (2013) developed a cooking skill survey, which was administered to a large and representative sample of the Swiss population. Notably, the researchers found that individuals with cooking skills reported eating more vegetables and lower amounts of convenience foods, even when the results were controlled for health consciousness (Hartmann et al. 2013:125). Brown and Hermann (2005) also reported similar findings in a study of educational cooking classes for youth and adults, which resulted in increased fruit and vegetable intakes amongst their participants. The same was found for adolescents who are involved in family meal preparation (Larson et al. 2006). Further, in a literature review compiled by Fruh et al. (2011) family meals were seen to lead to healthier food choices, more consistent meal patterns, and to also provide a wide range of psychosocial benefits.

Such research has supported the development of many interventions and programs targeted at the youth demographic; the up-and-coming generation of home cooks. While children and adolescents have historically learned food preparation skills at home, given the recent and rapid change in American dietary patterns it has been noted that, "…parents and caregivers today cannot be expected or relied on to teach children how to prepare healthy meals (Lichtenstein and Ludwig 2010:1857)." As such, many interventions have been designed to reach youth through programs offered outside of the home. From summer camp programs (Beets et al. 2007) to innovative school-based

programs like Cookshop (Liquori et al. 1998) the efforts to teach children to cook are many, varied, and widespread (also see: Caraher, Baker and Burns 2004; Condrasky, Graham and Kamp 2006; Dougherty and Silver 2007; Thonney and Bisogni 2006; Walters and Stacey 2009).

However, youth are not the only ones being targeted by cooking interventions, and as Frances Short (2006) cautions, they ought not be. As she suggests, "…it may be worth bearing in mind that there could be more helpful times to learn to cook, times when cooking has become more a part of life, is actually practiced and skills can be acquired *in situ* (Short 2006:117)." While the efforts do not yet seem to be as widespread as with the youth demographic, low-income adults and health professionals have recently been identified as groups that could generate cascading benefits from cooking education to pass onto their families and clients (Cooper and Begley 2011; Foley et al. 2011; Smith et al. 2013; Stead et al. 2004). Of note to my current project, one key demographic group that has received little attention is college students. In the introduction of one of the few studies that has provided a cooking skill intervention to this demographic it was emphasized that, "[u]pon moving out of the dormitories, many students shop and prepare meals for themselves for the first time (Levy and Auld 2004:200)." As such, these students represent a prime audience for acquiring and utilizing basic food preparation skills. Levy and Auld (2004) targeted college sophomores who self-selected participation in the study, and were then randomly assigned to a cooking intervention or demonstration group. The authors found that the hands-on intervention group experienced more

substantive gains in attitudes, behavior, and knowledge of cooking than did the demonstration group; all factors that are critical to consistent cooking practice.

Levy and Auld's (2004) study did, however, present some limitations due to the potential for self-selection and self-report biases in their pool of voluntary participants. These limitations highlight the need for future studies to combine the effectiveness of Levy and Auld's hands-on approach to culinary education for college students with less intrinsically biased samples—for example, by adapting interventions within regularly offered for-credit courses. While the long-term dietary changes and health effects of such courses have not yet been studied, there is evidence of a wide-range of educational benefits for students and faculty alike. Trubek and Belliveau (2009), who have designed and taught cooking-based curricula for courses in nutrition, environmental studies, and anthropology in the University of Vermont's foods lab (site of the current study), have found that cooking is unmatched as a tactile and sensory-based learning experience which calls upon students to engage with their lessons in a complex and comprehensive manner.

This section has reviewed the potential of home cooking as a subject of both public health inquiry and intervention, specifically highlighting the opportunities within the college-aged demographic. However, public health and nutrition are not the only disciplines to recognize cooking as a subject worthy of academic study. The following section considers the growing focus on home cooking practice within the field of anthropology, and explores what can be gained through taking an ethnographic approach to the study of day-to-day cooking activities.

Home Cooking and Culture

While the topic of food has long attracted the interest of anthropologists—since it is, among other things, "…a prism that absorbs and reflects a host of cultural phenomena (Counihan 1999:6)"—the act of cooking itself has attracted far less scholarship (Trubek 2012:25; Sutton 2013). As Sutton (2013) bemuses in a review article, "[i]n the field of anthropology, where everyday life has long been part of the ethnographic project, cooking surprisingly was long only given glancing mention (134)." Sutton chalks up the incidental presence of cooking in ethnographies to the fact that such domestic practices, near-universally performed by females, have historically been viewed as "relatively uninteresting anthropologically speaking" (134). He suggests, however, that the tides are turning and reviews three recent anthropological works that bring cooking to the fore (see: Counihan 2009; Kaufmann 2010; Wrangham 2009). In comparing and contrasting the content and approach taken by each of these authors Sutton finds optimism in the future of anthropological approaches to the study of cooking. From Wrangham's biocultural theory that the advent of cooking with controlled fire represents a defining event in the course of human evolution, to Kaufmann's inward focus on the subtleties and meanings of cooking practice, to Counihan's more outward focus on what cooking can reveal about broader social structures and relationships, Sutton suspects "that cooking—like the grandmother with her recipes and special ingredients—has only begun to reveal its secrets (147)."

Earlier this year Sutton (2014) himself revealed some of the *Secrets from the Greek Kitchen* in his latest ethnography based upon over two decades of fieldwork on Kalymnos—an Aegean island in the Dodecanese chain just off the coast of Turkey. Through a fine-grained ethnographic account, paired with video footage available to readers online, Sutton provides a truly immersive look at the everyday cooking practices of Kalymnian islanders. Shifting focus from the general (e.g., theories of skill and knowledge transmission, the gendered and generational propriety of cooking practice, discussion of recipes and cooking shows) to the specific (e.g., cutting ingredients in the hand and other kitchen "micropractices," the kitchen choreography of mother and daughter, instances of continuity and change in familial practice), Sutton crafts a balanced and meaningful text that expertly navigates the central tension of any good ethnographic work: paying due tribute to participants' lived experiences while also presenting an argument resonant to broader geographic locales and areas of study.

Like Short's (2006) *Kitchen Secrets,* I view Sutton's latest book as a touchstone work to guide and inspire future inquiries into the everyday happenings of the home kitchen. Through reviewing an assortment of qualitative studies on home cooking (see above) I was left with the following question: what essential capacities must a cook possess in order to cook a meal in a range of environments? Sutton's work suggests that to properly answer this question a better understanding of cooking as a sensory practice, a skilled practice, and as embodied knowledge is necessary. I take these matters up in the next section.

Senses, Skill, and Embodied Knowledge

Social and cultural studies of food, with a few notable exceptions, have historically remained divorced from the sensory experiences evoked (Sutton 2010; Beagan et al. 2015:207-9). Conversely, sensory scientists have long actively excluded extrinsic social and cultural phenomena from their studies of food choice and experience for fear of biasing consumers' true perceptions of a food's intrinsic qualities. Recently this division has been brought into question on the premise that, "sensory experience *is* social experience (Lahne and Trubek 2014:129)"—that is, consumers' sensory experiences are developed and understood within the context of broader social norms, and often include considerable deliberations between self and others in social settings. As such, Sutton (2014) argues that for food scholars, taste—and the senses writ large—provides new opportunities for understanding social life and its experiences. To this end he advocates for a *gustemological* approach to food scholarship that allows sensory experiences of food and its preparation to become "total social fact[s], tied to multiple domains of social life (2014:15)," as opposed to mere methods employed to "infus[e] scholarship with sensuality (2014:14)." Food, and indeed cooking, are experienced and enacted through a sensory engagement that guides the *skilled* transformation of assorted products into a cooked dish (Wilson 2012:253; Short 2006:8). I emphasize skill here, as the term—widely used and seldom clarified—is in need of proper application and distinction within the culinary context.

Short (2006) makes the case that current conceptions of cooking 'skills' are vague at best. She suggests that the skills involved in cooking are such that they include not just the mechanical execution of cooking tasks (e.g., chopping, stirring, etc.) but the sensory perceptions that guide and unite these tasks towards a desired end—that is, the cooked dish. Here, I find anthropologist Tim Ingold's (2000) ecological understanding of the nature and transmission of skill to provide important theoretical insight. Ingold argues that skilled practice cannot be understood—rather, fails to exist—in the disassembly of component parts and isolated acts. To Ingold, it is the "gestural synergy of human being, tool and raw material (352)," engaged in actions guided by "care, judgment, and dexterity (cf. Pye 1968:22)," and mediated by sensory corrections (cf. Bernstein 1996) that constitute for skilled practice. In Ingold's model it is the activity itself, and the particularities of the process by which it unfolds, that give life to the product in question, rather than a preconceived design in the mind of the practitioner (2000:354).

Complementing the point that the senses are central to the enactment of skilled work, David Sutton (2014) applies the concepts of embodied knowledge and "synaesthetic reason" (cf. Paxson 2012) to cooking practice. In describing the work of a New York City *pizzaiolo*[3], Sutton follows the rhythmic, tactile, and kinesthetic motions that the pizza chef employs in stretching and shaping the dough to the conclusion that this kitchen work is emblematic of the type of skill described by Ingold. Yet the seeming intuitive nature of the pizza chef's task reveals not only skill, but a sense of embodied knowledge that permits the enactment of the skilled practice itself to guide the

[3] *Pizzaiolo* is the Italian term for a "pizza maker"—a culinary craftsman who is generally highly regarded for his skill in Italian culture.

coordinated work of hand and mind. Sutton also suggests that this process is guided by "synaesthetic reason" (cf. Paxson 2012), or the specific integration of sensory and discursive knowledge to achieve the desired result—here, the crust's characteristic thinness.

To summarize, the application of contemporary studies of the role of the senses, skill, and embodied knowledge to the work of food preparers underscores the culminating points of this literature review—namely, that to make sense of cooking practice one must consider the broad contextual interplay of person, product, and process to understand the true skill and strategies employed in any given cooking task.

Learning to Cook, and Cooking to Learn

"…no one is born a great cook, one learns by doing."
– Julia Child

From the above discussion comes a thorny question: how to teach cooking skills if they are so contingent upon particular ecological and sensory contexts? I argue that the literature reviewed supports an approach to cooking education that focuses, primarily, on establishing a particular sort of environment from which learning can then follow. While Levy and Auld's (2004) study with college sophomores concluded the importance of using a hands-on approach to culinary education, other points brought up in the literature suggest this is likely not *sine qua non* to the facilitated acquisition of cooking skills and strategies. Ingold (2000), for instance, suggests the need for an "education of attention" (cf. Gibson 1979:254) in learning any skilled practice. This entails, "…introducing novices into contexts which afford selected opportunities for *perception* and *action*, and

by providing the scaffolding that enables them to make use of these affordances (354, emphasis original)." In this section I further relate the previous theoretical discussions of skill and sensory integration to central tenets of the cooking pedagogy informed by the teachings of John Dewey, which has informed the curricula taught in the University of Vermont's foods lab.

In a doctoral dissertation completed at the University of Vermont, Cynthia Belliveau (2007) applies the educational philosophy of John Dewey towards the creation of a new pedagogical model for interdisciplinary cooking-based food studies. Belliveau emphasizes that Dewey, perhaps best known for his "learning by doing" approach to education, long recognized the merits of making cooking a curricular focus for students' coursework (2007:3). In closely tracing the progression of Dewey's career from undergraduacy to his years spent running the Dewey Laboratory School at the University of Chicago (circa 1896-1904), Belliveau identifies four key premises from his pragmatic pedagogical philosophy that elucidate the unique potential for kitchen as classroom. I dissect these premises below, and treat each in relation to the broader themes highlighted in the home cooking literature—specifically, the importance of taking a hands-on, person-centred, contextual, and synaesthetic approach to the instruction of cooking skills.

The first Deweyan pedagogical premise identified by Belliveau (2007) is that of *aims and means*. This follows from Dewey's belief that there should be a categorical continuity bridging matters of home and school (13). In Dewey's mind, allowing students to pursue educational means that are at once inherently interesting and applicable to daily

life encourages them to take onus in directing their own educational course. In so doing, the student is nudged to inquire towards farther-reaching means and approach increasingly stimulating ends (19). The second premise is the *theory of the act*. Here, Belliveau draws from Dewey's high-appraisal of educational tasks that follow a "complete act of thought," allowing students to engage fully in the process of "work-product-project" (19). Engagement in a complete act allows students to achieve a rhythm, inherent in all activity, "which connects knowledge and experience and transforms teaching-learning into experimentation and problem solving (20)." The third premise is that of a *community of inquiry,* which stands in direct opposition to the common model in higher education of the isolated classroom experience. Dewey envisioned the classroom as a democratic space, and hence the activity in it as, "a cooperative enterprise in which the teacher is a member of the group not its sole authority (20)." The fourth Deweyan principle is *value-theoretic vs. game-theoretic* situations, which speaks to Dewey's disavowal of academia's prioritization of grades and competition over—or, at the expense of—more inclusive values that emphasize each student's role in the total educative experience (21).

Put in conversation with ideas explored earlier in this literature review, the Deweyan pedagogical model compromises a wholly integrative approach to culinary education offered at a time when college-aged students' personal cooking practices are uniquely malleable (Levy and Auld 2004:200; Short 2006:117). At the most basic level, Dewey's pedagogical philosophy supports the hands-on approach lauded by Levy and

Auld (2004), and also satisfies Ingold's (2000:356) assertion that to acquire and progress in any skilled task "…it is not enough for the novice to know how [the skilled master's] constituent movements look 'from the outside'; [the novice] has to also know how they 'feel from the inside'." Yet beyond the emphasis on a hands-on approach, Dewey's model supports the idea that cooking is a person-centred task (Short 2006) by looking inward at a student's own educative aims and means, while also outwardly emphasizing that each pupil has a unique role within the classroom community and, taken further, in society writ large. This underscores a culminating point hinted at throughout this literature review, which is that cooking happens in a broader societal context mediated and shaped by social structures and systems. It is conceivable, then, that in urging students to experiment and problem-solve, the Deweyan model readies students to navigate the daily structural pressures of kitchen work by instilling them with a sense of *agency* in regards to food preparation. To properly introduce this framework, the next section will take a multidisciplinary look at the theoretical underpinnings of structure and agency.

Theories of Structure and Agency

The related constructs of structure and agency have been widely theorized and applied within many academic disciplines, though perhaps most prominently in the social science fields of psychology, anthropology/sociology, and philosophy. My goal in this section is not to exhaust the understandings that any one of these fields has lent to the development of these constructs, but rather to provide the top-level commentary

necessary to come to a synthetic understanding as to the relationship between structure and agency generally speaking. This discussion will lead into the concluding sections of this literature review, devoted to making the case for taking a food systems approach to the study of home cooking that recognizes the agency individuals display as they work to prepare meals for themselves and others.

Contributions of Psychology

Renowned psychologist Albert Bandura, the father of Social Cognitive Theory (1986), has spent the past few decades advancing understandings of the role of human agency within his field. At the most basic level Bandura's model of human agency accounts for an individual's ability to intentionally set and achieve goals that bring meaning and purpose to his/her life (Bandura 2006:164). According to Bandura (2001; 2006), the construct itself rests on a foundation of four key cognitive processes: intentionality, forethought, self-reactiveness, and self-reflectiveness. At the core of the construct, however, is self-efficacy—or, personal belief in one's own abilities. Bandura (1982; 1989) regards self-efficacy as the operant self-percept between an agent's knowledge and action; the difference between capability and actualization. Thus the essence of this agentic construct rests on the cognitive processes individuals employ to navigate broader sociostructural influences, situating the agent as both a producer and product of social systems (Bandura 2001:1).

To distinguish the psychological view of agency from that of other disciplines, Bandura is clear to reject a dualistic view of structure and agency (see: Giddens 1979).

He claims that, "[s]ocial structures are created by human activity, and sociostructural practices, in turn, impose constraints and provide resources and opportunities for personal development and functioning (2000:77)." Yet, while structure and agency are interdependent—each formed in relation to the other—Bandura emphasizes (2000:77) that agentic actions are not limited to reactions against structural influences. Humans also often act proactively to shape their experiences within social systems—and, in some cases, thereby succeed in altering those very systems. Further, in response to criticisms that a focus on self-efficacy ignores the need for social and collaborative endeavors, Bandura (2000) acknowledges the role of collective efficacy in his theory of human agency. He argues that belief in the power of one's own efforts is not inherently individualistic, and when applied towards societal problems can bring great benefit. Humans are social beings and thus most plans and pursuits will involve collective effort—there is no *absolute* agency in an isolated sense (2006:164).

In terms of application, Social Cognitive Theory has provided a useful and important theoretical framework from which to design a variety of interventions focused on behavioral change, most notably within the field of public health (Edberg 2013). In the following excerpt, Bandura (2004) describes the utility of his theory within a public health context:

> Belief in one's efficacy to exercise control is a common pathway through which psychosocial influences affect health functioning. This core belief affects each of the basic processes of personal change—whether people even consider changing their health habits, whether they mobilize the motivation and perseverance needed to succeed should they do so, their ability to recover from setbacks and relapses, and how well they maintain the habit changes they have achieved. Human health is a social matter, not

> just an individual one. A comprehensive approach to health promotion also requires changing the practices of social systems that have widespread effects on human health. (Bandura 2004:143)

By exchanging the term "health habits" for a more specific dietary practice—say, home cooking—one can see how this framework could be applied to interventions attempting to increase an individual's agency around their meal preparation habits. That is, through targeting both individual characteristics (e.g., cooking skills and self-efficacy) and environmental factors (e.g., community food access and shopping strategies).

Contributions of Anthropology/Sociology

The relationship between structures and agency has long preoccupied scholars in other social science disciplines as well, particularly anthropologists and sociologists. While psychologists lean towards a cognitive-based conception of human agency focused on the individual, anthropologists and sociologists have developed their understandings in relation to broader social systems (Hitlin and Elder 2007:170). In his theory of "duality", sociologist Anthony Giddens (1979) argues that structure and agency share a mutual relationship, rather than an oppositional one. While social structures can often be framed as static and constraining, Giddens' (1979) theory contends that structures enable agency through permitting individuals to act to meet self-desired ends. Additionally, he acknowledges that agents' capacity for innovation renders them capable of transforming the very structures they act against within the framework of broader systems (Giddens 1979; Rose 2011:644).

More recently, however, explicit attention has been given to the form and function of structures themselves. For example, in critiquing scholars like Giddens for employing "frustratingly underspecified" conceptions of structures in their agentic theories, Sewell (1992) has advanced his own structural theory (5). Sewell first points out that general usage of the term "structures" is too causal and determinative, falsely engendering structures as rigid and the social actions they mediate as purely reactive (1992:2). Following from this, he critiques that this conception has helped to foster a pervasive metaphor of structural stability as a backdrop against temporal change (1992:3). Such a view misconstrues societal change as a passive product of the passage of time, rather than a direct outcome of human intentions and input. Finally, Sewell (1992:3) notes an inconsistency in the ways in which structures are interpreted and studied by sociologists and anthropologists. While sociologists have tended to regard structures as fixed and determinant, anthropologists have regarded them as more malleably rooted within cultural contexts. In sum, Sewell proposes the following dynamic definition of structures to guide and align future studies that consider problems of structure and agency:

> Structures…are constituted by mutually sustaining cultural schemas and sets of resources that empower and constrain social action and tend to be reproduced by that action. Agents are empowered by structures, both by the knowledge of cultural schemas that enables them to mobilize resources and by the access to resources that enables them to enact schemas. (Sewell 1992:27)

Applied to the case of cooking, Sewell's structural definition aligns with—and, operationalizes—key points made by Short (2006) and Sutton (2014) regarding the contextual interplay of person, product, and process during meal preparation. Although

he is not talking about cooking specifically, Sewell's theoretical contribution helps to explain why context matters to cooking practice through highlighting a possible mechanism by which an individual's cultural environment, social norms and expectations, and physical resources converge to empower and constrain his/her choices and actions related to food.

Contributions of Philosophy

While ideas about human agency are indelible in the philosophic tradition, the paper trail mapping the evolution of agency as a philosophical construct is far more elusive than in the two fields previously described. Thus, in this section I focus primarily on the novel agentic qualities that have been drawn out of the writings and work of American philosopher and educator John Dewey.

In a dissertation exploring John Dewey's concept of students' growth and citizenship, Elizabeth Caldwell (2012) argues for a philosophical reading of human agency that highlights its "experiential and embodied character" (6). According to Caldwell's (2012) reading of Dewey, "agency is not simply a rational faculty or cognitive ability, but is an embodied phenomenon relating to the ways in which individuals feel themselves to be active, capable agents in the midst of changing situations (1)." According to Caldwell, to be an agent from a Deweyan philosophical stance involves both conscious and intentional thought as well as subconscious responses to lived experiences and sensory perceptions. Here, the emphasis on embodiment and sensory experiences as essential elements of human agency aligns nicely with the "synaesthetic"

approach to the study of home cooking practices that was exemplified by Sutton (2014).

A Summative View

This section has explored three distinct theoretical positions concerning the form and function of structure and agency within the social sciences. From the field of psychology—specifically, the Bandurian (1982; 1986; 1989; 2001; 2004; 2006) view—agency is approached as an individualized construct with distinct cognitive roots, with an emphasis on the role of self-efficacy in actualizing self-specified acts. The fields of anthropology and sociology depart from psychology's individualistic view to consider what it means to have agency in the context of a broader society (Hitlin and Elder 2007). Despite discrepancies over whether structures are 'hard' or 'soft'—rooted in the realm of material or culture—anthropology and sociology do share a dualistic conception of agency (Sewell 1992). That is, structure and agency are regarded as mutual forces that self-shape one another through ongoing encounters. Finally, the Deweyan philosophical rendering of agency moves beyond cognition and societal positionings, to consider agency as an embodied and actively experienced phenomenon, essentially accounting for the subconscious and sensory perceptions that allow for agents to act in meaningful and purposeful ways (Caldwell 2012). In sum, this multidisciplinary overview of agency discourse supports the following conclusion: taking an agentic view to any particular task-based subject—say, home cooking—would involve consideration of how the actor completing the work (e.g., a home cook) employs cognitive skills and sensorial perceptions, while navigating—and shaping—various structures (e.g., schedule, budget,

mobility) in the course of setting and meeting one's personal meal preparation goals.

Making the Case for "Food Agency"

From the discourse summarized above, it follows that human agency—as conceived by a number of fields in the social sciences—is a broad and dynamic construct[4] concerned with the capacity of individuals to meet purposeful goals and aims. Other scholars have noted the explanatory power of applying core social scientific constructs—namely, self-efficacy—to explore the gap between consumers' knowledge of food and nutritional information and their actual incorporation of various dietary aims into their everyday practices (for example, see: AbuSabha and Achterberg 1997; Cunningham-Sabo and Lohse 2013; Glynn and Ruderman 1986; Henry et al. 2006; Larsen et al. 2014; Parcel et al. 1995; Woodruff and Kirby 2013; Saksvig et al. 2005; Sallis et al. 1988; Schulze and Schulze 2003). However, only a handful of studies have applied broader and more explanative constructs—such as, structure and agency—to bridge the divide between individuals' knowledge and action around food choice. To better understand the opportunities for applying an agentic view to studies of food choice and behavior, I review a narrow subset of the studies which have pioneered this approach.

In one such study, Sobal and Bisogni (2009) begin from the acknowledgment that in the contemporary food environment "[f]ood choice decisions are frequent, multifaceted, situational, dynamic, and complex and lead to food behaviors where people

[4] Summarizing entries from the Oxford English Dictionary (2015) a "construct" is a concept or idea formed by both sense-impressions and analytical thought, most often devised as part of a theory. While agency—within this framework—can indeed be considered a construct, I will refer to "food agency" in the remainder of the thesis as a *capacity*. I feel the term capacity better speaks to the meal preparer's active engagement and embodiment of cooking practice in a practical—as opposed to theoretical—sense.

acquire, prepare, serve, give away, store, eat, and clean up (S37).” As such, these Cornell researchers employ a broad constructionist approach to social definition to induce a food choice process model. The model they arrive at is comprised of dynamic and interactive components organized into three main realms: life course events, contextual factors, and personal value systems. Importantly, the authors identify that the various contexts consumers must navigate while making food decisions give rise to “…shifting structures within which individuals exert their personal agency in making food choice decisions… (Sobal and Bisogni 2009:S41)” However, while the authors do take a broad and holistic approach in detailing their inductive model of food choices, their focus remains rooted in a cognitive realm. Referencing the multidisciplinary summary of human agency covered in the previous section, such an approach fails to account for the more corporeal aspects of an individual’s active experience preparing food—for example, sensory experience and the embodiment of skilled practice. Benefitting from the detailed foundation provided by Sobal and Bisogni (2009), this thesis will take a similarly inductive approach while adopting an alternative focus—that is, I will shift from the cognitive realm of food choice to the active realm of meal preparation.

In recognition of the increasingly complex and dynamic relationship existing between global food systems and individual consumers (Lang 2003), the authors of another recent food choice study sought to pin down a definition for “food literacy”; a pervasive yet slippery term (Vidgen and Gallegos 2014). This Australian study was conducted in two parts in order to gain insight from two distinct vantages—that of food

experts, and that of disadvantaged young people responsible for their daily food activities (50). The motivation behind this study, again, highlights a need to "capture the complexity of knowledge, skills and behaviours [*sic*] used to meet day-to-day food needs (50)." The food literacy definition that emerged through the authors' interviews ultimately contained eleven components broken into the categories of planning and management, selection, preparation, and eating. Vidgen and Gallegos (2014) claim that their work extends beyond the realm of food choice to consider the knowledge, skill, and behaviors involved in preparing healthy meals. Ultimately, the authors conclude from their grounded analysis that food literacy—as conceptualized through the study—serves as a form of dietary "resilience" (58). However, framing food literacy in this way—as a reactionary armor protecting against unhealthy food environments rather than an embodied and actively generated capacity—seems limiting. Recalling Bandura's (2000:77) defense of human agency, individuals often act *proactively* as opposed to just reactively. Thus, to be truly agentic, any theory or capacity related to food choice and behavior must account for this idea. The final author under review moves beyond this limitation by advancing a broader conceptualization of the consumer's active role within the process of making choices and decisions related to food.

Across all the literature reviewed, only one author was found to directly apply the constructs of structure and agency to a study of food acquisition practices. For his dissertation research Daniel Rose (2011; 2014)—now, assistant professor in sociology at Chattanooga State Community College—used the diverse neighborhoods of Detroit,

Michigan as a backdrop for exploring the "interplay between agency and social structure" of African American residents broadly (2011), and low-income African American women specifically (2014). Both studies, based on in-depth semi-structured interviews, advocate for incorporating structure and agency into food acquisition and dietary-related studies as a basis for issuing advice that is relevant and useful to individuals seeking to change their dietary behaviors. He also cautions that such a framework must be adopted in a manner that avoids drawing either individualistic conclusions (i.e., overly agentic) or deterministic conclusions (i.e., overly structural). This is certainly sage advice for the current study.

Summary of the Literature Review

In sum, the literature reviewed first provides a broad contextual overview of home cooking as an everyday practice through the lenses of the media as well as both quantitative and qualitative factions of academic research. Next considered was the disciplinary importance of home cooking to scholars of nutrition and public health, as well as to anthropologists and cultural scholars—highlighting the need for cooking to be conceptualized as a highly contextual sensory and skill-based practice, and as situated within the broader *process* of meal preparation. Theories of skill, sensory science, and embodied knowledge were then reviewed, restating the need for a broader purview over the skills and strategies of kitchen work to capture the diversity and complexity previously identified. These points, considered against the educational philosophies of John Dewey, then suggest the importance of fostering a particular type of educational

environment to facilitate the progression of university students into cooks with a greater sense of agency around their practices. The final sections weave together multidisciplinary conceptions of structure and agency, and ultimately promote the case for enlisting these constructs into studies of food choice and practice so as to better capture the diverse capacities and skillsets inherent in food preparation activities. To follow, I describe the methodology that has guided my own studies of everyday home cooking within the broader procedural, systemic, and social contexts outlined through this literature review.

CHAPTER THREE

METHODOLOGY AND METHODS I:

HOME KITCHEN ETHNOGRAPHIC EXPLORATION

To address the gaps and opportunities identified through this literature review, I have adopted an ethnographic methodology to make sense of the factors and forces that underlie cooking as an involved social, structural, and systemic process. In this section I highlight the importance of situating domestic kitchen activities within a broader food systems framework, and of engaging in transdisciplinary research collaborations to align small-scale qualitative investigations with farther-reaching quantitative applications.

Given that this project incorporates two distinctly phased studies, I have divided the description of methods into separate chapters. This first methods chapter provides an overview of the general methodological design of the project, orienting the reader to the relation between each of the thesis' two main studies. Next, the remainder of the chapter describes the particular ethnographic methods used to explore the practices of home cooks in effort to inform a definition of "food agency" from within the context of everyday acts of meal preparation. The methods related to the exploration of the student cooks' development will be described in Chapter 5, providing a natural segue into the presentation and discussion of those findings in the body of Chapter 6.

Methodological Design of the Thesis

My primary goal in this thesis project is to define "food agency" from two distinct vantages. First, from that of *routine performance*, by looking at the typical dinnertime

routines of home cooks across the Northeastern United States. And, second, from the vantage of *guided progression*, by following the progress of college students as they learn to cook over the course of a semester-long food and culture lab. To achieve this I have conducted two distinct, yet complementary, studies rooted in the principles of ethnographic inquiry and exploration. The first study, the subject of Chapter 4, looks at the practices of home cooks in order to reveal a spectrum of "food agency" capacities through the lens of everyday cooking experience. The second study applies the first's findings to focus on the evolving practices of student cooks being instructed under an innovative curriculum informed by the pedagogical philosophy of John Dewey. Both of these studies were designed to be explorative in nature, and thus have led to deeper ontological understandings of what "food agency" is and the role it plays in mediating the relationship between a cook and his/her broader food environment. Despite the division between studies, they have maintained a dialogic relationship throughout all stages of the research process. That is to say, the essential elements of "food agency" revealed through the actions of the home cooks have helped inform the evaluation of student cooks in the foods lab. Likewise, the additional experience of videotaping the students served to guide and refine my coding and analysis of the home cook materials in an iterative manner.

Food Systems Framework

A central premise of both studies is that cooking practice transcends basic culinary skills and knowledge, and in turn necessitates a broader capacity of structural strategies and *systemic* engagements. That is to say, in today's contemporary U.S. food

environment, cooking relies as much on strategic shopping trips as on sautéing onions, and as much on discerning between ingredients as on dressing a salad. The capacity that this research seeks to define—"food agency"—is thought to facilitate cooking through a dynamic process from meal conceptualization to consumption, rather than through the isolated performance of tactical skills alone. Since human agency has been said to describe "the ability of people to act intentionally to shape their worlds (Nash 2005:67)," then at the broadest level "food agency" can be viewed as the ability to act intentionally to shape one's food environment.

The importance of adopting a food systems framework for this project was additionally reinforced to me following my review of the evolution of human agency discourse within the social sciences, as well as from the gaps I identified in various studies related to food choice. I recognized the need to situate the home cook within a food systems model in order to make sense of their actions and engagement, as opposed to just their cognitive intentions and reactions against structural pressures (Sobal and Bisogni 2009; Vidgen and Gallegos 2014). Thus, in exploring "food agency" I consider how the actor completing the work—the home or student cook—employs cognitive skills and sensorial perceptions, while navigating—and shaping—various societal structures (e.g., time, money, mobility, etc.) in the course of setting and meeting personal meal preparation goals. It then follows that, to have food agency is to be *empowered to act* throughout the course of planning and preparing meals within a particular environment. As a food systems scholar, conceptualizing the work of the cooks in

relation to the broader environment they are acting within has inspired my overall approach to this project from conception to completion.

Transdisciplinary Alignment

I designed my research activities around explorative qualitative methods typically used in extended ethnographic fieldwork. However, while my approach was primarily ethnographic, my scope remained transdisciplinary. According to Wickson, Carew, and Russell (2006), a transdisciplinary research approach involves three central components: the work must address an identified need or problem, incorporate a flexible and reflexive methodology, and invite fruitful collaboration (1052). To follow, I describe how my research has met each of these requirements.

As highlighted in my literature review, this project responds to the need to take a broad yet contextual look at the trends around home cooking in order to parse out the skills and strategies that are actually involved in the process of getting a meal on the table. The methods, borrowed from the ethnographic tradition, are designed to attend to understandings that are rooted in people's everyday lived experience, and thus have served to keep the research grounded and relevant. Lastly, the main trade-off in electing to use qualitative over quantitative methods has traditionally been a prioritization of depth and context over breadth and greater generalizability (Atkinson and Hammersley 1994:248). To challenge this methodological divide, and to better make use of the strengths of these two research approaches, this project has been conducted alongside a related quantitative research effort. From the early stages of project design, it has been a

key underlying methodological goal of this research to explore and categorize the complex capacity of food agency to inform and complement the concurrent development of a quantitative instrument by fellow researchers in my lab group—the Food Agency Scale (FAS). This alignment has brought additional meaning, context, and nuance to my colleagues' quantitatively driven work, and has provided an applied outlet for the findings of the qualitative research described in this thesis. Notably, such an approach is supported by the best practices for mixed-methods research established by the National Institutes of Health. As they emphasize:

> …qualitative exploration may usefully occur prior to development of an adequate instrument for measurement. By including qualitative research in mixed methods, health science investigators can study new questions and initiatives, complex phenomena, hard-to-measure constructs, and interactions in specific, everyday settings, in addition to experimental settings. (Creswell et al. 2011:6)

Once final validation testing has been completed, the FAS—partially informed by the everyday cooking practices and experiences highlighted through this research—will be available for use with broader and more diverse populations to assess, evaluate, and track relationships between levels of food agency, cooking habits, and health and behavioral outcomes. In short, this scale is a great example of the sort of applied outcomes that can be generated through strategically sequenced transdisciplinary research collaborations.

Locations of Research

The geographic sites represented in the home cooking portion of this project include the urban settings of Boston, MA and Burlington, VT; the small town setting of Middlebury, VT; as well as a few more rural and remote locations within Vermont's

Franklin and Lamoille counties. The student cook study took place in the University of Vermont's foods lab, located onsite at the school's central campus in Burlington, VT. All of the data preparation, coding, and analysis also took place onsite at the University. The Institutional Review Board at the University of Vermont approved all research activities associated with this project.

Sources of Funding and Research Expenses

This project was funded through USDA Hatch Grant #029534 (PI: Dr. Amy Trubek), with supplemental research funds also provided by the University of Vermont's Food Systems Graduate Program. The provided funding was used to issue compensatory gift cards to City Market's Onion River Co-op in the amount of $50.00 for each of the five home cooks, and in the amount of $75.00 for each of the eight student cooks.

Ethnographic Exploration I:

Home Cooks

The first study of this thesis project involved the application of ethnographic methods to reveal the skills, strategies, and capacities that underlie the daily act of making dinner. Ethnography is perhaps most commonly associated with the work of cultural anthropologists studying foreign societies for prolonged periods—referred to as time spent "in the field"—later summarized in lengthy written accounts of the Other laden with thick description (Geertz 1973). Yet, the proper form, function, and application of ethnographic methods has been broadened in recent years as other social scientists have adopted the approach to study aspects of social life in a diversity of

locations, both domestic and abroad (Berg and Lune 2012:196; Bohannan and van der Elst 1998:4).

For the purposes of this study I regard ethnography in accordance with Berg and Lune (2012:197) as, "…the practice that places researchers in the midst of whatever it is they study" with the goal of uncovering "the meanings behind the acts". Through employing both classic ethnographic methods (e.g., participant observation, interviewing, and fieldnoting), and more novel techniques (e.g., videotaping) I was able to temporarily immerse myself in the everyday routines of home cooks of varying levels of experience. Again, this particular approach allowed me to satisfy basic tenets of transdisciplinary research by keeping my project grounded in everyday life, while also supplementing the quantitative work of my colleagues. Collectively, these kitchen visits comprehensively informed my understandings of the broad set of engagements that are involved throughout the process of preparing a meal. Next, I describe in greater detail the specific methods used to conduct this first study.

Home Kitchen Visits: Virtual

For the first phase of this research I observed 22 home cooks across the Northeast who had been videotaped while preparing typical dinner meals in their home kitchens. This ethnographic videotape database, collected as part of previous cooking research at the University of Vermont (Epter 2009; Henley 2010; Nathanson 2008; Trubek 2012), contained 35 videos (13 of the home cooks were filmed on two separate occasions) each lasting approximately one hour in duration. The goal of this earlier work was to look

closely at the practices of home cooks in urban, suburban, and rural areas of the Northeastern United States to discern what home cooking actually looks like on a day-to-day basis. Upon viewing a subset of these videos during the design phase of this project, I determined that these home cook participants had modest to advanced cooking abilities. This was an important early insight, as a key premise of this thesis project—and, of the Food Agency Scale it is informing—has been that food agency capacities will vary from cook to cook, likely with a fair amount of correlation with one's cooking experience. Thus, in consultation with my advisor and research colleagues I decided to recruit and film five additional home cooks whom self-identified as "inexperienced" or "experienced". In so doing, I ensured the spectrum of experience levels captured in the final video database would include novice and professional abilities, in addition to the diverse representations already present along the middle of the spectrum. The research activities associated with this second phase of the study are described in greater detail below.

Home Kitchen Visits: In-Person

The "inexperienced" (n=3) and "experienced" (n=*2*) home cooks were recruited through a posting on the web-based Front Porch Forum targeted at Burlington's Old North End (ONE) East residents (see: Appendix A). The posting was also made visible to neighboring forum communities within the Burlington metro area (e.g., Centennial, Downtown, ONE Central, Winooski). The five home cook participants were selected out of the pool of interested responses based on mutual availability, degree of match with

study criteria, and spread of gender diversity. Having in-person access to these five home kitchens lent tremendous depth to my research experience. No longer separated from my research subjects through time, space, and a pixelated screen, I was able to properly assume the role of a participant observer. During her study of everyday home cooking in the British context Frances Short (2006) felt that, "becoming 'part of the furniture', a neutral observer in someone's private kitchen, would be a lengthy and potentially unworthwhile process (23)." Yet, for me, assuming this role proved immensely worthwhile, providing the valued insight of shared experience and associated memory—or, "headnotes" (Ottenberg 1990:144)—that video footage alone cannot replicate.

Participant observation is the central method of all ethnographic fieldwork, described somewhat bluntly by Bernard (2011) as, "getting close to people and making them feel comfortable enough with your presence so that you can observe and record information about their lives (256)." While more traditional forms of ethnographic fieldwork allow researchers to develop relations and build rapport with their participants to better establish mutual comfort, my exploration-length kitchen visits forced me to jump straight into research mode with limited conversational prelude. Despite this haste in moving from introductions to research activities, I found that the participants were largely undeterred by the presence of my video camera, which helped the sessions feel natural and representative of typical routine. This dynamic could be partially due to the clear expectations I outlined during the recruitment process (see: Appendix A), or perhaps it speaks to the ubiquity of technology in our modern lives, as suggested by

Sutton (2014:23) who used a similar process to film Kalymnian home cooks. Sutton (2014) also emphasizes that, "[t]he point of observation, of course, is not that it is more objective than what people say, nor certainly is it to judge people's cooking against some explicit or implicit external standard (21)." Rather, as I have also confirmed through my own experience, observation allows a window into the detailed procedures and tacit actions that pervade the process of cooking. In other words, the complexity of cooking is best understood by watching it happen.

The actual practice of videotaping, in fact, contributed a valuable dimension to my personal experience as a researcher. I believe the effect is best summarized through the insight of visual ethnographer Sarah Pink (2007) whom states, "[w]hen ethnographers produce photographs or video, these visual texts, as well as the experience of producing and discussing them, become part of their ethnographic knowledge (21)." With the camera[5] in hand, I was simultaneously immersed in the full cooking experience playing out around me, while also maintaining an attentive focus to the particular scene depicted on the camera's flip-out screen. Panning in and out, shifting the angle and position of the frame, I was able to hone in on and selectively capture key moments of the cooking process. In essence, the task of filming kept me oriented amidst the lively to-and-fro of kitchen activity.

Short's (2006) main reservation to using participant observation for her study of domestic cooking was that "…many practical tasks involve perceptual and conceptual abilities that are tacit and mostly unobservable (23)." There is, of course, plenty of truth

[5] For the videotapings, I used a lightweight handheld Canon Vixia HFR52 camcorder borrowed from the University of Vermont's Bailey/Howe Library.

to this statement and thus I chose to augment my observations and videotapings with follow-up semi-structured interviews that encouraged participants to remark upon their otherwise unspoken acts and routines. Specifically, participants were encouraged to discuss their general meal preparation process, cooking practices, and main strategies for fitting home cooking into their lives (see: Appendix B and C for the interview guides for inexperienced and experienced cooks, respectively). This approach lent emic—or, "insider"—perspectives to the etic—or, "outsider"—perspectives that were previously observed and captured on videotape (Berg and Lune 2012:198).

The interviews were conducted after the cooking session, and in most cases over the course of eating the meal, which lent a more natural flow to our conversations and allowed me to follow-up on any notable observations that happened during the meal preparation. The roughly hour-long interviews, recorded on my password-protected, were later transcribed verbatim in preparation for coding and analysis. Basic descriptive and demographic information that is harder to elucidate through oral questioning was collected separately on a paper survey that the home cooks filled out during the research visit (see: Appendix D). Immediately following my visits, I made a point to sneak away to a nearby coffee shop or return to my apartment to write-up fieldnotes documenting my initial impressions of the cooking scenes I had witnessed. Specifically, I focused on documenting emergent questions and insights, and reflections upon my own objectivities and preconceptions about peoples' cooking processes. This latter component of the fieldnotes was my way of embedding *reflexivity* into my ethnographic process,

acknowledging and keeping check on my place in the shared "social world(s)" at the heart of my study (Berg and Lune 2012:205).

Notably, other scholars before me have yielded important results from applying a similar ethnographic methodology to the study of home cooking practice. Most directly associated with this project, my advisor, Dr. Amy Trubek (2012), and three of her past graduate students (Epter 2009; Henley 2010; and Nathanson 2008) have used videotaping, interviews, and surveys to make sense of home cooking in both a broader and more general sense. The previous collection of home cooking videos (*n=35*) collected as part of these prior efforts have become part of the raw dataset analyzed in this current thesis project. As a reminder from the literature review, this earlier home cooking project has helped to inform the assumptions upon which this study is based. Namely, that home cooking is a practice in transition rather than decline, and that decisions about whether or not to prepare a meal are complex and extend well beyond the realm of physical tasks and abilities (Trubek 2012:30).

Computer Aided Qualitative Data Analysis (CAQDAS)

To systematically code and analyze the complete database of home cooking videotapes (*n=40*), inexperienced and experienced interview transcripts (*n=5*), and accompanying fieldnotes generated through this research I used the Computer Aided Qualitative Data Analysis (CAQDAS) software, ATLAS.ti 7. ATLAS.ti has received high praise from qualitative researchers for its utility in managing and coding data in both

text and audiovisual formats (Lewis 2004)[6], and thus it served as a useful platform to deal with all the data formats generated throughout this project in a single easy-to-use interface. With allusion to the Greek mythological hero, ATLAS.ti is designed to allow researchers to explore and make sense of large collections of data—to go about, "…mapping the world by an archive of meaningful documents (Friese 2014:i)."

The following qualitative coding schema adopted from Neuman (2011) guided my basic process of coding the data after it had been properly formatted and loaded into ATLAS.ti:

1. *Open coding*: explore the data to condense into analytic categories, or codes.
2. *Axial coding*: review, examine, condense, and connect initial codes; focus on causes, consequences, conditions, interactions, strategies, processes, etc.
3. *Systematic coding*: conceptualization of the broader interaction of related codes through creating a chart or visual schematic.

This three-tiered coding approach allowed me to fully absorb the nuances of the broad set of data incorporated into this project, while honing in on the key connections and themes that have informed my grounded definition of food agency along a fluid spectrum.

Summary of Methodology

In sum, this chapter has provided a clear linear representation of what has in practice been a highly iterative, cyclical, and inquisitive ethnographic journey into home cooking practice. Paul Willis (2000:iii) has described ethnography as, "the eye of the needle through which the threads of the imagination must pass." This statement resonates

[6] The benefits of ATLAS.ti over other CAQDAS packages (e.g., HyperRESEARCH, NVivo) were additionally emphasized to me through personal communication with a few ethnographers at the 2014 Society for Applied Anthropology conference held in Albuquerque, NM.

with my own research experience, emphasizing how careful attention to the most seemingly minute details allows many threads, or streams of insight, to yield a complete cultural fabric—or, in my case, a grounded definition of food agency. To follow, I weave together these findings presented through thick narrative description interspersed with select video clips (indexed on p. v, "List of Video Clips"). This latter addition was inspired by David Sutton's (2014:10) methodological move to invite his "readers to become viewers" in his recent ethnography on home cooking in the Kalymnian context.

CHAPTER FOUR

A SPECTRUM OF FOOD AGENCY CAPACITIES

Introduction

I began this study with one central objective, the focal point around which all of my research has since been oriented—in short, to define food agency along a spectrum of experience levels. For the first few months of summer, as I planned and prepared for my fieldwork, it was this goal that became etched into the back of my mind, serving as the foundation upon which all of my research activities—proposed, planned, and prepared for—would be based. Yet, the moment I set out into "the field" the seeming clarity and direction that this objective had once held for me quickly began to slip away. As I sprinted out towards my car, caught in a pop-up afternoon thundershower on my way to my first in-person kitchen visit, I found myself being pelted by more than the steady fall of raindrops. My mind was filled with a barrage of questions that only the advent of actual research activity could have prompted me to ask: what is the basic structure of food agency? What am I looking for to inform this? Will I know the basic components when I see them? Is food agency evident through cooking actions themselves? Or, does this complex capacity only emerge from conversations that reveal 'the meanings behind the acts'? Rather than just systematically walk through the answers my research has since revealed to me, I want to introduce this chapter by way of two vignettes taken from my fieldnotes. In this way, I will reveal the emergence of a basic conceptual framework for food agency in the same way that it was revealed to me: through the lens of everyday

cooking practice. As for what followed on that tempestuous August day, suffice it to say that by the time I reached my destination—my participant's kitchen—the rainclouds had parted to reveal a clear, bright sky.

Vignette #1: "Chicken and Some Mixture of Onions, Garlic, and Spinach"

This first excerpt comes from my third in-person kitchen visit with one of my inexperienced home cook participants, Dan. Originally from Richmond, VA, Dan had spent the past few years in Vermont attending graduate school. At the time of our interview he was working full-time as an inn host at a local farm estate, with only his oral defense standing between him and his master's degree. Here is an excerpt from my fieldnotes written up shortly after my visit to Dan's third-floor studio apartment kitchen on a sunny September evening:

> For this evening's videotaping session, Dan chose to prepare baked chicken with lemon, and pot sautéed spinach with onions, garlic, and vinegar. He later self-described the dish in our interview as, "…baked chicken thigh, and some sort of mixture of onions, garlic, and spinach that are cooked in a separate pot…" The preparation of the chicken was a short process consisting of cutting open a bag of fresh chicken thighs, emptying the contents into a small baking dish, then quickly transferring them to a slightly larger baking dish so that they could be arranged in a single layer. Before setting the chicken in the oven to bake, Dan squeezed half of a lemon over them, followed by a judicious sprinkle of salt and pepper. To fill the interim that arose between putting the chicken into the oven and starting on the spinach, Dan sliced up a bright red heirloom tomato—one of the last for the season—which we both ate with a light sprinkle of coarse salt.
>
> Dan was slow and careful with his knife skills, yet not very precise. He seemed unadventurous and unsure with seasonings. It was clear, too, that he was not well versed in the basic alchemy of cooking, specifically certain cardinal rules about sequencing a sauté. For example, he tossed the garlic and oil into a cold pot, he added vinegar before allowing the onions to cook through causing them to maintain a firm and crunchy texture, and the final ratio of cooked spinach to onions was about 1:1 (accurately reflected in the order of ingredients listed in his self-description of the dish). With all this said, though, I do not want to come off

> as purely judgmental, even in my own fieldnotes. To me, these observations simply highlight the gaps in Dan's culinary knowledge, rather than mark any sort of personal shortfall. This might have been one of the most sub-par meals I have eaten thus far, but I am still grateful that he made it for me. After all, from a research standpoint, I will probably gain more insight from Dan's chicken than from the delicious lemon curd that Julia made (the first experienced home cook I visited). Even though the meal was somewhat forgettable, the research visit itself was quite enlightening. More than with Sofia (the only other inexperienced cook I have visited thus far), I could really begin to see with Dan that he simply lacked certain skills, capacities, and organizational frameworks that are essential to cooking, but admittedly are far easier to recognize in their absence than in their presence. (Author's Fieldnotes, September 2014)

Vignette #2: "Tacos from Scratch"

This next vignette comes from my fourth in-person kitchen visit with an experienced home cook, Michael. I knew Michael prior to arranging our research visit, as at the time he was enrolled in the Food and Culture course in which I was conducting research and serving as a teaching assistant. In his late-thirties, Michael was older than the rest of the students in the class and thus seemed an unrepresentative fit as a "student cook" for my study based in the foods lab. However, with his professional kitchen experience I recognized he would be a perfect fit in the home cooking portion of my research. Michael never actually attended culinary school, but has learned the trade through twenty-two years spent working his way up through a handful of restaurant kitchens. Most formatively, he recalled working for four years at a French restaurant in Burlington where he advanced from prep cook all the way to head chef. At the time of our visit he was transitioning away from the restaurant scene: attending school full-time, working towards a Bachelor's degree in Anthropology with a focus on food, while also finishing up his seasonal work as a caterer during Vermont's events season.

Michael spent the first half of his childhood in New Jersey, but moved to Vermont at the age of eight to live with his mother following his parents' earlier divorce. He dropped out of high school, but having taken an early interest in cooking at home he turned to restaurant jobs as a way to earn money, and eventually found himself making a career out of it. Now in his late-thirties, Michael has held various kitchen positions on the East and West coasts, and has since settled back in Burlington, VT with his wife and sixteen-month-old daughter. The following is a selection from my fieldnotes written on a cold and rainy October evening after watching Michael cook:

> This evening I went over to Michael's house, and videotaped while he made an impressive spread of "tacos from scratch" for his family and friends. I was really tired before heading over to his house, something about the rain and having had visitors in town myself, but my energy was restored once I entered his kitchen and smelled the pork belly rendering away on the back burner of his stove (later to be fried into *chicharones*[7]). The kitchen was small, but cozy, and felt nice and warm after coming in from the cold fall rain. He had an impressive bookshelf, and elaborated upon my asking that these were only the most readily used books (there had to be at least fifty…), and the others were stored elsewhere. His kitchenware seemed to have gone through a similar editing process, with what remained in view being only the most quality and seasoned heavy-bottomed ceramic and cast iron pots and pans.
>
> Michael's wife came home shortly after I arrived and greeted me enthusiastically, asking if I'd like a beverage, whilst describing the flavor profile of an Austrian wine she had purchased at Dedalus (a local wine shop) to go with the taco spread. It was a great atmosphere, warm and welcoming from the start. Once I turned on the camera to begin taping he began first with preparing the rice. It was basmati, which he figured was not the 'authentic' variety to be served with tacos, but yet neither of us could think of which variety is typically used in Mexican cuisine—perhaps Carolina? The rice had been pre-soaking, thus it only required a 1:1 water to rice ratio, about half what he would normally use with a typical un-soaked preparation method. Michael used a glass kimchi jar to fill the rice pot with the water, explaining that he rarely 'measures' with standardized devices, focusing

[7] *Chicharones* are fried pieces of pork skin or belly that are typically dusted with spices and served as a snack or side.

more on the ratio. Later on his wife cited this same reason as to why she wanted to make the *masa*[8] for the tortillas herself, not trusting his play-it-by-eye instincts when it came to something as finicky as a dough.

With the rice on the stovetop, the remainder of the videotaping, about an hour and a half total—sapping the camera battery just as Michael was finishing up slicing the mole-rubbed beef—was a blur of activity, yet it all seemed efficient and purposeful. Michael had sketched out a prep list, sort of like a rough *mise en place* (see: Figure 1), and I followed with the camera as he moved from searing off beef tenderloin, to preparing various salsas, blackened plantains spiced with fennel seed, a corn and bean salad, thinly sliced cabbage, and a *chiffonade*[9] of cilantro. We chatted throughout, and spoke a lot about his knives, pans, and various other kitchen implements. Towards the end of the meal preparation activities his guests arrived—his brother-in-law and his two kids, as well as Michael's babysitter and her boyfriend. Michael and his wife adamantly insisted that I stay for dinner, and I was all too happy to accept. The food was delicious; aggressively seasoned yet surprisingly well-balanced, and the company and conversation were refreshing. Chatting with the adults, having his sixteen-month-old daughter sneak beans off my plate one by one… it was a fabulous reminder of how communal cooking can be, and the social aspects that both drive and dictate meal preparation. To this end, Michael and his wife actually thanked me, saying this research visit gave them an excuse to cook a full taco spread; something they rarely do for just themselves. This was a component that seemed to be more lacking in my inexperienced cook visits (now that I think about it, both of my experienced cooking participants used the filming session to prepare meals for a group of people); an interesting thing to think about. Does the cook with less food agency not cook for others as often because they lack the confidence/motivation, or does the lack of socially-oriented cooking stunt their agency? I left this visit full from the food, stimulated by the commensal experience as a whole, and with much to digest as I begin to weave together these various research experiences. (Author's Fieldnotes, October 2014)

[8] *Masa* is a dough used to make tortillas. It is made out of corn that has been nixtamalized—that is, cooked in an alkaline solution prepared by adding lime to the cooking water. This process helps to breakdown the corn kernels' hulls as they cook. The hulls are washed away during the wet-milling stage. The final step is to stoneground the corn to make the fine flour that is used to prepare the *masa* dough. (McGee 2004:481)
[9] In cooking, the term *chiffonade* refers to herb or plant leaves that are cut into thin ribbon-like strips (Montagné 1961:270).

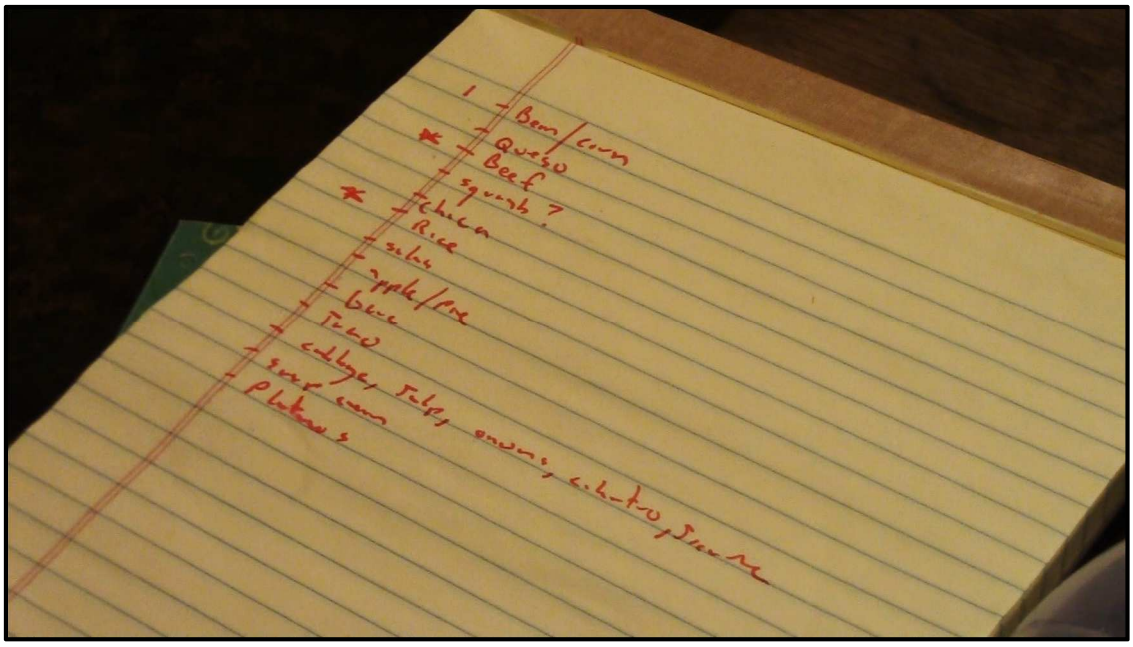

Figure 1. Michael's Taco Prep List

The Emergence of a Food Agency Spectrum

My fieldnotes reveal some of the nuances of food agency, and the inherent complexity that comes in moving from theory to practice. Yet, through careful analysis I have discovered a number of significant and cogent patterns. Throughout my research process—both in conducting the visits and reviewing the data—the drastic contrasts evident between cooks like Dan and Michael have allowed me to recognize not only a "spectrum" of food agency, but also the components and basic structure of the capacity itself. Sure, Michael's skilled use of his lightweight Asian cleaver allows him to move through piles of produce with levels of precision and efficiency that Dan, or any other less experienced cook, could hardly imagine. Yet, my close analysis of these research experiences revealed many other thematic components—beyond immediate skills—that are bound up in the home cook's progression throughout the steps of meal preparation,

and which seem to be highly variable along the lines of one's cooking experience.

For example, both Dan and Michael also had distinct cooking *styles*—based on a notion of fluidity—which I have come to regard as a visible marker as to their positions along a spectrum of food agency capacities. Dan seemed slow and unsure in his movements, and there was an arrhythmic feel that arose from his work in the kitchen. He would act and then attempt to correct himself, yet was not always sure how to troubleshoot problems that would arise. In terms of timing, he also seemed to struggle with finishing even just two dishes at a set serving time. Part of this is likely due to the fact that when Dan cooks the same meal for just himself, without someone else to serve it to, he typically would just start cooking both dishes and then eat the spinach—usually straight out of the pot to save on cleaning dishes—while waiting for the chicken to finish. In contrast, Michael's movements throughout the kitchen seemed purposeful, efficient, and fluid. Even the more chaotic moments—for example, frying the *chicharones* as guests and young children filtered in and out of the tight kitchen space—seemed to have an inherent and controlled rhythm to them. It was almost as if Michael was receiving some form of invisible guidance—a sort of metronomic beat—to inform the fluid progression of his work that a less experienced cook like Dan would not be privy to.

Through a careful analysis of the cooking practices of these—and twenty-five other—home cooks, I have been able to map out the capacity of food agency so as to both identify, and draw relations between, the many interrelated parts. The resulting concept map (see: Figure 2) contains a number of components, which stem from the code families

that emerged during the *open* and *axial* stages of my coding process. These components are organized from individual out to societal layers, thus aligning with a food systems framework and the theoretical guideposts identified through my literature review. The map, as a whole, demonstrates how food agency facilitates the process of meal preparation: from planning, to shopping, to cooking, to eating, to cleaning up. Within this broader framework, it portrays the basic components—skills, techniques, and strategies—that are central to the process. Additionally, it accounts for the guidelines and sets of internal and external factors that shape and mediate an individual's practices as they proceed through the steps of meal preparation. The interrelations between the main groups of components were informed by my *systematic* stage of coding and analysis, where I looked at the interactions between my main code groups.

In sum, the food agency concept map provides a solid structural basis from which to further consider the main objectives of this chapter, which are as follows: 1) to empirically define food agency along a fluid spectrum, and 2) to explore the ways in which broader structures mediate and inform, shape and constrain, everyday expressions of food agency.

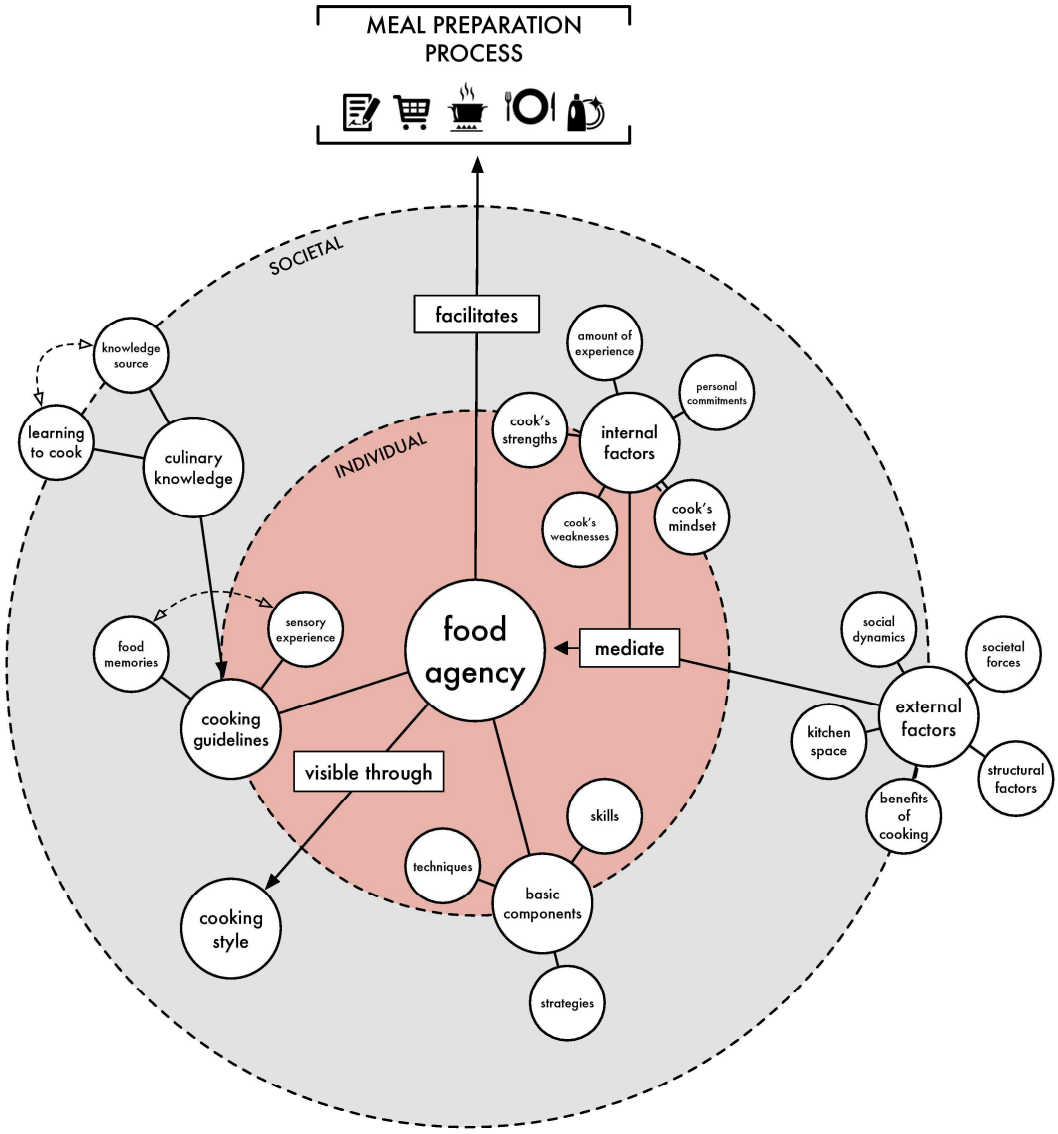

Figure 2. Food Agency Concept Map

Basic Components of Food Agency

The Food Agency Concept Map reveals that there are certain essential elements, certain key components, which are necessary in order for cooking to happen on any given occasion. In developing my eye for ethnographic video analysis, I trained myself to view the complexity and variation exhibited through the active practices of the twenty-seven home cooks as they chopped, sautéed, boiled, mixed, arranged, and plated their way to finished dishes. From the total array of actions on display, I have distilled several basic components of food agency, which aptly represent the individualistic core of the construct. To follow, I work through some of the essential cooking *skills*, *techniques*, and *strategies* that have emerged from my close and careful analysis of the practices of novice, intermediate, and expert home cooks.

Cooking Skills. When it comes to cooking there are many possible skills at play, but perhaps none more ubiquitous nor more revealing than the chopping of an onion. The video clip, "Knife Skills: Onion Chopping", depicts Dan, Heather, and Michael—home cooks at the low, medium, and high end of the experience spectrum, respectively—using various degrees of skill to transform this common allium bulb to meet various culinary ends. At the start of the clip we see Dan (introduced in the vignette that begins this chapter), slowly and carefully applying downward force on the handle of his knife to chop half rounds out of a large yellow onion. He uses the pointer finger of his free hand to knock the slices into a neat, tilted pile after making each cut. His knife work is not particularly fast, but his sacrifice of speed seems to allow him to make all his cuts of a

precise and fairly uniform width. Yet, the way he has oriented the onion causes his slow methodical cuts to result in inconsistently sized concentric halves—longer and broader on the outer edge, much shorter and tighter on the inner—rather than the thin uniform slices that could have been achieved had the same technique been applied in cuts directed vertically, from root to tip.

The next portion of the clip portrays Heather, an enthusiastic and curious suburban home cook in her thirties, as she verbally describes her struggle to correct her approach to cutting an onion. She has been shown by her boyfriend, a restaurant cook, the 'right' way to approach the task yet in his absence she admits that, "it's just like autopilot sometimes, like I'll just go ahead and do it the way that's not easiest to cut it." She proceeds correctly at first, slicing the onion towards its root end with her knife parallel to the cutting surface, and then makes the perpendicular downward cuts to section the onion into a kind of grid. However, her mistake comes in that her cuts go too far, dismantling the root end, which would have held the onion together until she completed her dice. Unknowing of her exact mistake, yet clearly aware that the onion needed to somehow remain 'assembled', she begins placing the fallen sections back atop the others while saying, "this is where I always feel like a novice cook, when I'm like trying to put the onion back the way it came. Like, someone is not gonna spend the time to do that who really knows what they're doing. I'm sure they do it another way." Unlike Dan, who did not seem to acknowledge that there might be a better way to cut his onion, it is clear that Heather had at least some conceptual understanding that there was a culturally-defined

'right' way to achieve her desired dice. Recalling Ingold's (2000:356) concept of skilled practice from the literature review, it could be said that Heather had an understanding of what the task of dicing an onion ought to look like "from the outside", but has not yet learned how the motions used to achieve this "feel from the inside".

The final portion of the clip shows Michael, the home cook from the "tacos from scratch" vignette, making quick work of an onion with his five-dollar Asian cleaver—or, Chinese *tou*—from Thai Phat[10]. Michael is clearly not using the classic French technique that Heather was attempting, since he begins by leveling off both the stem and root end of the onion, then makes a quick longitudinal slice to more easily remove the outer layer of skin. After halving the onion along its grain, he begins making long perpendicular cuts in an equatorial orientation, against the grain, rather than towards the root end as is done with the French method. He then proceeds to chop a fine dice out of these slices by angling his knife to release each of the segments. After reaching a certain point, about half way, he flips the onion on its side, makes a few more angled cuts, and then sections the remaining portion of onion into vertical strips, which are then finely chopped to finish the dice. As he works through the onion with his cleaver, his free hand remains stationed atop the onion to keep it in place on the cutting board, while also responsively rotating to guide his cuts and to protect his fingers. Michael also keeps his pointer finger extended along the spine of the blade for added support and direction. This grip on the knife, along with the anatomy of the blade itself, seems to facilitate a more linear approach to his knife work than would typically be seen while using a curved chef's knife whose tapered

[10] Thai Phat is an Asian grocery store located in Burlington's Old North End neighborhood.

blade naturally favors a rocking, or "locomotive", motion (Wilson 2012:54). The scene of Michael's onion chopping recalls Ingold's point about skilled practitioners: "…whatever practitioners do *to* things is grounded in an attentive, perceptual involvement *with* them, or in other words, that they watch and feel as they work (2000:353, emphasis original)."

Cooking Techniques. In conceptualizing this chapter, I was prompted to ask my officemate a question: what is the difference between skill and technique? After some back and forth, we agreed that technique could be viewed as a particular means for achieving an end, whereas skill seems to conjure the idea of an approach that has been honed through repetitive practice. So, in this sense, there were many *techniques* displayed by the home cooks chopping their onions, although it was very clear that some used a more practiced and perfected—that is, *skilled*—approach than others. Thus, my separation of skills and techniques is made with the recognition that techniques are specified towards achieving a certain end, and thus one could be skilled at a particular technique, but this is not an essential prerequisite for the practice. Throughout my process of coding and analyzing the practices of these home cooks I encountered myriad methods for reaching as many culinary ends—with the practices displayed through the onion video clips offering but a select window. Yet, from this diversity emerged a couple techniques applied widely and variably across many of the kitchen visits, thus providing valuable insight into the idea of an emergent spectrum. One of the most prominent techniques I witnessed was *sautéing*.

The popular culinary scientist, and self-proclaimed "curious cook," Harold McGee describes sautéing as a method of fat-based dry heat cookery ideal for achieving desirable levels of browning (McGee 2004:786). The name itself comes from the French verb "to jump", thus alluding to the characteristic heat-induced popping motions made by ingredients—say, diced onions—dancing excitedly in a pan of hot fat. In the namesake video clip titled, "Technique: Sautéing," we again see Dan—an inexperienced cook—at work in his tight top-floor studio apartment kitchen. Having already prepared and laid out his ingredients for cooking, he adds some olive oil into his pot and tosses in the garlic. The lack of audible sizzle, along with the limp appearance of the garlic bits, suggests that the oil in the pot had not heated up much beforehand. A short while later, Dan places his hand over the pot, presumably to judge the temperature, or perhaps spurred by a lack of sound or visible markers that would typically suggest the garlic to be cooking. It seems, though, that his conclusion is not that he needed to apply more heat, but somewhat the opposite: more cold oil. The addition of oil is then quickly followed by the concentrically sliced onions, now in quarters. In a more traditional sauté, the sequence of adding the garlic and onion would be reversed, with the onion added first, due to its longer cook time and higher moisture content.

The next segment of the video clip shows Dana, a self-described intermediate cook in her sixties living in a rural area of Vermont, as she prepares to sauté onions to the point of caramelization[11] for a pork stir-fry. Her cooking vessel—some kind of cross

[11] Caramelization, according to the popular culinary scientist Harold McGee (2004:656), "…is the name given to the chemical reactions that occur when any sugar is heated to the point that its molecules begin to break apart."

between a wok and a pot—is already amply heated as she had used it moments prior to brown the pork and mushrooms, since reserved and set aside. In fact, it may have even been too hot, as she recognizes the onions beginning to singe quite quickly after being added. More so than Dan, Dana seems aware of the proper order in which a sauté ought to be performed in response to some internalized standard, yet is not necessarily adhering to these ideals due to outside life distractions. For example, just prior to this particular segment she admits to the visiting researcher that she should have begun sautéing the onions earlier in the cooking process, but was feeling a bit frazzled that day due to stresses from her job. Had she been more focused, perhaps she also would have sliced up all her onions to add in at the same time, rather than letting some begin to brown while the later additions were still being sliced.

The final segment of the clip shows an experienced cook in his forties, Ross, who works as the executive chef at a rural Vermont school in the same town in which he resides with his wife and two kids. Unlike Dan and Dana, Ross is sautéing a protein—butterflied chicken breast—rather than the onion showcased in the other two dishes. Ross uses his tongs to ensure the chicken is evenly coated with oil-and-herb marinade then swiftly transfers it to a large All-Clad skillet where it is met with a loud sizzle, audible even over the ventilation fan. It was Ross' original plan to grill the marinated chicken he is shown sautéing in the video, but after multiple attempts to light his grill he decides the gas tank must have been lower than he thought, and resorts to another quick-cook method: pan sautéing. After achieving an initial sear on the first few pieces, Ross slides

the pan to the front burner replacing the spot where his corn pot was set to boil. It is unclear if this move was made for enhanced access, or instead to adjust the amount of heat being applied, but in either case it is clear that there is intent and practice backing what I recognize as Ross' skilled approach to sautéing.

Cooking Strategies. Just as techniques are often related to—yet, are generally categorically broader than—skills, cooking strategies come at an even higher degree of abstraction from the mechanics of the cooking process. While I witnessed as many cooking strategies as I did meals made, there were certain key strategies that were displayed across a majority of the home cooks' kitchen practices. One of these was a kitchen organizational practice—*mise en place*—French for "to put in place", which refers specifically to the standard practice of restaurant chefs gathering, prepping, and arranging all of their ingredients and tools before beginning to cook. While less experienced cooks like Sofia, Dan, and Jen were a little bit more reactive—prepping ingredients and finding tools on an as-needed basis—some of the middle range cooks like Carolyn, a dairy and vegetable farmer in Northern Vermont, and Rosi, a Trinidadian woman living with her husband in Boston, MA, had clearly adapted aspects of *mise en place* into their kitchen routines. This was apparent as these women worked to prep their ingredients before beginning to cook, and carefully placed them out in separate bowls or piles to be added to the cooking dish at the proper time, and in the proper order. Yet, watching trained cooks like Ross, Julia, and Michael it was clear that this organizational practice has become much more than a standardized process, but rather an embodied and

somewhat philosophical aspect of their general mindset and approach to cooking (Charnas 2014).

Figure 3. Carolyn's (Mobile) *Mise en Place* for a Vegetable Stir-fry

This seeming ability to visualize the components of meal preparation was also evident through two other key cooking strategies: *measuring* and *timing*. Before I began closely analyzing all of the data, I assumed that the less experienced home cooks would compensate for a lack of culinary intuition by leaning heavily on recipes and measurement tools to guide their cooking processes. However, this is not quite the way it panned out. Analyzing the videotapes, I discovered that the less experienced cooks do not necessarily measure or rely more on set timing instruments than the experienced cooks. Importantly, though, they also have not yet internalized these parameters in the same way. Often, their decisions were seen to lack a context from which they could later be evaluated and learned from. Thus, when problems arise for the novice cook he/she may be unsure of what instigated the trouble, or of how to improve in future attempts.

One telling example of this largely internal distinction can be seen by comparing the approach to measuring and cooking rice used by Sofia—a young and inexperienced home cook attending graduate school in Burlington, VT—and Michael, the professional cook and caterer from the earlier taco vignette. Both of these cooks used a "ratio" method with a non-standardized vessel—in one case a ceramic mug, the other a glass kimchi jar—to measure both the rice and water so that there was an equivocal proportion between dry and wet ingredients. However, Sofia discussed that this is the only way she knows how to prepare rice, and as such she admitted to having trouble adapting between different rice varieties—for example, basmati and jasmine. She finds that her set ratio does not always result in the tenderness she desires, citing that it sometimes comes out "mushy" and other times "crispy". Yet, when these undesirable variations occur, she is left unsure of how to adjust her approach; a fault she partially attributes to her mother for never teaching her proper measurement techniques.

In Michael's case, though, it is clear that he is not bound to his measuring device in the same way. He simply views the glass kimchi jar as a convenient means to achieving his own premeditated end. Sofia responded first to the set ratio dictated by her measurement mug without fully grasping the relation between this strategy and her desired cook on the rice. Michael, however, was responding first to his knowledge of the ingredient he was working with—in this instance, a pre-soaked jasmine rice—and thus the measurement tool was merely a suitable means for enacting the preparation he already knew from knowledge and experience to be required. It can be understood, then,

that the difference is not necessarily the mechanics of the measurement practice used between these two cooks, but rather the ability—or, lack thereof—to conceptualize the process of cooking rice as a complete act. Part of this includes adapting one's measurement strategy in relation to the nature of the ingredient at hand, thus requiring some knowledge of its raw state—for example, the grain variety, amount of starchiness, degree of processing, etc.—and the role the added liquid (amongst other factors) will play in the overall transformation into tender cooked rice. This is all to say that Michael's approach to measurement is situated within a broader culinary context informed by exposure and experience, whereas Sofia's—while mechanically similar—is removed from this broader context of strategy and general culinary know-how. Thus, when errors arise Sofia is left unable to problem solve.

With timing strategies, the primary divide between experienced and less experienced cooks again seems to be the ability to conceptualize the steps of a meal in order to time them in concert with one another. The approach commonly seen with novice cooks was to undertake each task in a discrete step-wise fashion without always considering when to start certain tasks so that all the components for a meal finished around the same time. For example, one of the self-described inexperienced cooks, Jen, expressed her difficulty with sticking to a strategic timeline in our post-meal interview. As she described:

> I don't have an approach, and I often don't get everything going and the timing part of it, like even tonight. I feel like the buns were ready and warm, but the burgers were like still raw, so then the buns are cold and I can't put 'em back in because I've done that before and they just turn into rocks…

With a little more forethought, Jen might have been able to better time these aspects of the meal so that the buns were warm and soft right as the burgers came off the grill. The experience needed to develop such a strategy, though, should not be downplayed. One of the most experienced professional chefs, Ross, even affirmed this sentiment after being asked by the researcher about his own comfort with timing out dishes:

> I think that [timing] is one of the bigger challenges for home cooks, especially if they have some friends over and they all the sudden have ten people, and they're used to cooking for four, and then like coordinating the vegetables and the starch. When they have people come over they should just keep it simple.

For some of the middle spectrum cooks, such as Carol—a home cook preparing a four-course meal for five of her friends—timing was actually an important part of her overall approach to meal preparation. Prior to having her friends over, she had mapped out a list of what needed to be done by certain points in order for all the courses to come out at the appropriate serving times. As she explained to her visiting researcher, "I kind of have a timeline that I use. See, I need to start the risotto now [gesturing to her written list]." For the most experienced cooks in the study—professional chefs Michael and Ross—their approach was, in many ways, quite similar to Carol's (for example, see: Michael's rough prep list in Figure 1, and Ross' advice above). Yet, what for Carol was an external structural parameter that she had to list out step-by-step to keep her on track, for these two chefs the timeline had become an internalized mental framework that they no longer needed to externally reference in any great detail. Perhaps, it is internalizing these otherwise external guidelines that is the mark of achieving true skill and expertise.

From all of this I do not mean to suggest that to have a solid foundation of food agency the home cook simply needs to be skilled in onion chopping, have a handle on the technique involved in a sauté, and use thoughtful strategies to measure and time various stages throughout the meal preparation process. Yet, my analysis of these abilities certainly supports the idea that to define food agency along a spectrum, one must consider each component—each node of the map—as a potential capacity area on its own gradation. This is a far more nuanced view than the simplistic notion I entertained towards the beginning of my fieldwork, which was that the cook with less food agency would all together lack many of the abilities and frameworks that the more seasoned food agent has attained. While it is clear that Dan lags far behind Michael in terms of knife skills, and that Jen has yet to develop the innate sense for timing that Ross has achieved, it is also equally evident that all of the cooks have at least *some* capacity for each of these basic components essential to the act of meal preparation; and thus, to food agency. The next step, then, is to understand how these basic components are brought into use in the broader context of preparing a meal.

Orchestration of Food Agency

Moving beyond a strict focus on the home cook's isolated actions, it is apparent from analyzing these cooking skills, techniques, and strategies that there are additional stimuli that guide, tie together—perhaps, *orchestrate*—the home cook's general process. As I watched the practices of the home cooks, and listened to them self-narrate their cooking processes, it became clear that there were various levels of factors that served to

unite individual acts towards a singular end. The broadest label suited for these factors would be cooking guidelines. For example, many forms of such cooking guidance were evident as I watched some cooks base their plan for a meal around using up ingredients they already had on hand, seek to adhere to the parameters of a specific cuisine or recipe, or tweak standard recipes to better suit the taste preferences of themselves, their guests, or their family members. In all of these cases the home cooks were seen to be somehow shaping their practices in response to some set of conditions, input, or feedback. However, the most frequently referenced form of guidance appeared to come through the home cooks' *sensory experiences* throughout the cooking process.

Sensory Experience and Synaesthetic Reason. Recalling the discussion presented in my literature review, there is growing support that the senses play a critical role in certain skilled crafts—for example, artisan cheese-making (Paxson 2012; West 2013), and more recently, cooking practice (Sutton 2014). Thus, a focus on sensory experience offers the opportunity to make sense of the union of discrete component actions—for example, the skills, techniques, and strategies covered previously—as part of the guided procession towards a cooked dish. While my literature review hints at the theoretical importance of the senses to cooking practice, my research has provided greater empirical insight. From the video clip, "Sensory Experience: Smell, Taste, Sight, Touch, Synaesthesia", one can begin to see the role sensory engagement plays for cooks making a variety of typical dishes, in a variety of everyday settings.

In the first portion of the clip we hear Laura, a mother and Vermont farmwife in

her mid-fifties, as she questions an ingredient substitution she made while preparing a pot of black bean soup from one of her favorite cookbooks. The recipe had advised her to add dried mustard to the sautéed mixture of aromatics and beans, yet upon opening her spice tin she realized that the mustard had become caked, and effectively unusable. Thinking on the spot, Laura substituted a prepared wet mustard from the fridge whilst admitting, "this is not ideal, but the soup needs the mustardy taste." At the start of the clip, we see her reflecting upon that spur of the moment decision as she begins to smell the acetic notes of vinegar coming from the soup pot that normally do not arise when the mustard is added in its powdered form. She ultimately decides this will be okay, though, recalling from previous experience with this particular recipe that vinegar is often added at the end of the simmering process anyways.

The next portion of the clip introduces Alice, a single woman in her fifties living in a Boston apartment building, as she employs her sense of taste to prepare a basic balsamic vinaigrette. She begins by selecting a clear juice glass of medium-height, and adds a liberal palm-full of salt while good-naturedly joking with her visiting researcher about the imprecision of her measurement method. She next adds olive oil, followed by a splash of balsamic vinegar, eyeballing an approximate 2:1 ratio between the two components. Alice mixes up her concoction with a fork, tastes it, and states, "that's about right." This simple declarative statement is clearly made in reference to past experiences which have informed her idea of how a vinaigrette should taste—that is, as Alice herself explains, "there's a range that it can be within and still be just fine."

The next home cook to appear in the clip, Carol, is hard at work preparing a four-course dinner party for five of her friends in another Boston apartment kitchen. This is the cook who admits to being a real planner, and as discussed previously, she has mapped out a timeline to guide her cooking process. However, it is clear from this clip that Carol is also relying on her senses to guide her moment-to-moment decisions as she stirs the sautéing onions and says, "okay, when they start to look a little bit glassy is when I put the risotto in." As Carol adds the rice to the pot, she explains to the visiting researcher—who has admitted to never having made risotto before—that the modest looking cup-and-a-half of dry rice will grow into a large quantity of cooked risotto; more than enough to feed six people. This statement seems to allow Carol to share a visual reference with her researcher for what to expect from the final dish.

Ana, a thirty-something year-old Russian native now living in Burlington, VT, is shown in her portion of the clip preparing a scratch dough for meat *pierogi*. She always follows the same process: first, measure out one cup of water into a large bowl, followed by the addition of a single cracked egg, all whisked until homogenously combined. She justifies her approach to her visiting researcher by saying that "some people" add salt to the dough, yet she prefers to just add it to the cooking water instead. She also notes that others prepare the dough by mounding the dry ingredients on the countertop, making a well, and cracking the egg into the center; similar to the method used to make a pasta dough. She finds doing it in a bowl less messy, and believes it is also easier to avoid getting lumps in her dough this way. These justifications around her preparation of the

dough aligns with a theme that emerged from David Sutton's (2014:156) ethnography of Greek home cooks, one of whom he describes in the following way: "Polykseni justifies each of her decisions…in relation to a larger community that might practice different variations." In other words, even the most seemingly isolated kitchen activities are shaped by broader societal influences, norms, and expectations.

With the wet ingredients incorporated as her base, Ana begins scooping heaping cups of flour into her bowl, whisking in between additions, until she achieves a consistency that both looks and feels right to her. Next, the dough is to be further mixed and kneaded on the countertop. She places a fair amount of flour down on her workspace, broken into two piles, and plops the loose dough on top of one of them. Ana then rhythmically begins kneading the dough; folding it over unto itself, pressing it firmly with the heel of her hand, picking up speed as the loose flour becomes more tightly incorporated into the mass of dough. At one point her visiting researcher asks her how she knows when the dough is done, and she replies: "when it doesn't stick to your hands anymore, and when you poke it, it rises slowly." At the end of her clip, Ana seems satisfied that her dough has met these sensory criteria.

The final segment of the video clip shows Karen—an artist with Scandinavian and Sicilian roots living with her husband and small dog in a bucolic Vermont town—as she taste-tests her boiled pasta to ensure proper tenderness. As Karen explains to her visiting researcher, this is "the Sicilian way" to test pasta. Having fished out a noodle and approved of its texture, she drains the pot and adds the pasta to the pan of simmering

shrimp scampi sauce. While doing so, she explains that adding the pasta directly into the saucepan allows it to "get the whole aroma," which she clearly connects to the expected taste—"yummy". To be sure, though, she again tastes a forkful of noodles to make sure the dish is "fit for human consumption." She seemingly feels the need to justify her taste-based evaluations to her visiting researcher, explaining that when it comes to cooking, "I always play it by ear, by eyeball." A final dash of salt, and the dish is ready for serving.

In this final segment of the clip, Karen is clearly demonstrating both the role of one's senses in guiding and informing the moment to moment decisions that arise throughout the cooking process, while also speaking to the inherently *synaesthetic* nature of the work. The *Oxford English Dictionary* (2015) lists three definition forms under the entry "synaesthesia", two of which prove quite explanatory within this culinary context:

> *a.* A sensation in one part of the body produced by a stimulus applied to another part.
>
> *c.* Production, from a sense-impression of one kind, of an associated mental image of a sense-impression of another kind.

These two definition forms create a context from which to better understand Karen's seeming conflation of smell with taste, and sound with sight. Understanding her words and actions as synaesthetic helps reveal the fluid nature by which a cook is processing the stimuli of multiple sensory inputs to make decisions about their dishes, as well as relying on one form of sensory input—for example, the smell of a scampi sauce—to access other sensory expectations—for example, the taste of a properly cooked pasta dressed with that sauce.

This point is nicely corroborated by a section of fieldnotes that opens David

Sutton's recent ethnography of home cooking on the Greek island of Kalymnos. The statement is made by one of his home cook participants, Nomiki, as she prepares a meat sauce for a typical Kalymnian *pastitsio*[12]: "[t]he ingredients don't go in all at once. One at a time. There's an order in cooking. You'll put in the cinnamon, then after a little bit the pepper, the salt, the bay leaf, one by one, so that you can *hear the smell* of each ingredient (Sutton 2014:1, emphasis mine)." The senses create a framework from which current cooking decisions can be made in reference to past experiences, and with forethought towards future outcomes. It is precisely this combination of sensory and discursive knowledge used to guide an active skilled practice that prompted anthropologist Heather Paxson (2011) to dub the term "synaesthetic reason" during her ethnographic project working with artisan cheesemakers in the United States. I argue that synaesthetic reason—essentially, the ability to employ one's senses as a basis for decision-making—is a crucial guideline that, when accessed, allows the cook to attain greater assertion and agency over meal preparation.

Food Memories and Learning to Cook. It is important to remember that employing synaesthetic reason not only links one cooking decision to another, but also gradually builds a bank of sensorial knowledge and food memories which threads together past, present, and future cooking instances—thus, serving as a comprehensive framework to orchestrate the actions of the home cook. This unique capacity was evident in the actions and verbal expressions of all of the women in the "Sensory Experience…" video clip as they each somehow related their current perceptions of the dishes being

[12] *Pastitsio* is a classic Greek baked pasta dish, typically including a béchamel sauce and ground meat, such as beef or lamb.

cooked to previous renditions—for example, Laura recognizing the atypical smell of her improvised soup, Alice situating her dressing within a range of acceptability established by past attempts, Carol recalling visual cues to prompt her through the various stages of the risotto-making process, Ana accessing past memories of pierogi-making to determine when the dough 'felt' done, and Karen threading together multiple sensory inputs informed by years of experience cooking pasta. In this way, one can see the fluid nature by which the senses and memory dialogically inform one another within a synaesthetic framework.

This lends to the point, then, that for immediate sensory experiences to be meaningful to the home cook, he/she must have at some point *learned* how to cook to understand how various sensory stimuli fit within the broader process of executing a certain technique, or making a particular dish. Despite the fact that these cooking videos were meant, primarily, to capture the essence of cooking as an active practice, they also prompted dialogue revealing how each of the cooks came to acquire the culinary knowledge and experience evident in their work. The professional cooks clearly had the most extensive and explicit culinary knowledge base, both conceptually and practically, resulting from their formal culinary education—or, in Michael's case, from over two decades of on-the-job training. The middle and lower spectrum cooks, however, had much more variable experiences learning how to cook.

The most common modes of learning that emerged from the database of middle spectrum home cooking videos can be pared down into two general categories: *exposure*

and *repetitive practice*. In terms of exposure, many of the home cooks expressed genuine enjoyment about just spending time in their kitchens growing up; and, whether or not they received explicit instruction, these fond early memories seemed to both encourage and shape their cooking practices well into adulthood. This was certainly the case for both George and Evan, two willing and enthusiastic household cooks residing in the Northern metropolises of Boston and Burlington, respectively. For Martha, an elderly woman living with her husband in a suburban housing development in Burlington, it was not as much her immediate family that inspired her early culinary attempts, but her best friend's Greek mother who was constantly cooking whenever she would go over to visit. Other cooks admitted that their cooking had been influenced through exposure to more peripheral sources, such as cooking shows on television, recipes found in cookbooks, blogs, and magazines, as well as recipe swapping and tips-trading with co-workers.

However, while the exposure to various sources of culinary knowledge can be seen to plant a seed of influence for the budding home cook, it is the hands-on experience that comes from repetitive practice that allows the practitioner to translate conceptual knowledge into what can eventually be considered embodied knowledge; true skilled practice. In the video clip "Learning to Cook: Exposure and Practice" we see Isabel, the oldest of one rural Vermont family's four children, as she engages in the process of making dinner. It becomes apparent through earlier dialogue that this youngster has had plenty of exposure to kitchen work—both in her family home, pictured, and during visits with her grandmother. She is evidently eager to help out with the evening dinner—

vegetarian fajitas—and is given the task of juicing the lemon by her father, Ian. She is provided with the lemon and the tool she will need to complete the task: a metal citrus juicer. Isabel first places the lemon in the contraption, and closes the lid over it, yet she quickly realizes the whole fruit still encased by its peel is not prepared to be juiced, and she asks her father to "cut it open" for her. This ability to problem solve likely stems from the culinary intuition developed from her vantage as a curious onlooker of kitchen happenings. She next places the exposed flesh of the lemon atop of the metal cone to begin juicing, but then obediently changes her approach to match her father's instructions: "take it and smash it on there as hard as you can." Ian quickly modifies his instructions after seeing Isabel's very literal interpretation—"put it on there, sorry"—and he then shows her how to twist the lemon half back-and-forth to extract the juice. Isabel then mimics her father's motions, and completes the task. This video clip recalls and underscores an important assertion made by anthropologist Tim Ingold (2000:354) by way of James Gibson (1979:254) about how active practices, generally, and skilled practices, specifically, are transferred from one generation to the next:

> …each generation contributes to the next not by handing on a corpus of representations, or information in the strict sense, but rather by introducing novices into contexts which afford selected opportunities for perception and action, and by providing the scaffolding that enables them to make use of these affordances. This is what James Gibson called an 'education of attention'.

Young Isabel, under the apprenticeship of her father, is clearly being immersed in this 'education of attention' model for home cookery at a very early age.

The least experienced home cooks in the study—Sofia, Dan, and Jen—however,

had never really been exposed to this mode of learning as children in their own home kitchens. In fact, it was somewhat surprising to reveal the extent of commonalities between these three individuals all coming from very different environments—Venezuela, Virginia, and New Hampshire, respectively. Despite the variation in geography, each of these young adults described that they had grown up in homes where cooking was the daily norm for dinnertime meals—cooked, usually, by one dominant meal preparer in the household; either the mother or father depending upon work schedule and general temperament for cooking. Interestingly, though, for these three young adults, despite—or perhaps, in some sense, because of—the ubiquity of home cooking in their lives growing up they never took an interest in learning to cook while living at home. The kitchen was their parents' domain, and with the exception of holiday traditions—for Jen, helping stir the Indian pudding, for Sofia, helping to wrap and tie the tamales, and for Dan, assisting with the backyard pig roasts—they saw no reason to tread across this line. That is, until they went away to college. Here is an excerpt from my post-cooking interview with Jen, as she reflects upon her lack of engagement with cooking at home as a child and what this has meant for her cooking education later in life:

> *Jen*: And then as an adult I felt more like, "geez, I never knew how much went into this whole damn process!"
>
> *Maria*: Yeah
>
> *Jen*: …of eating, and cooking, and I think that's why I get where some of my like, I'm-definitely-not-an-experienced-chef-type piece comes from, because I think I'm like learning a lot, and I try to make decent meals, but I don't have like a lot of background…
>
> *Maria*: Right, because you weren't in the kitchen, right?

Jen: Yeah, it was just not part of my growing up… Um, but I feel like I have, like, done pretty well. I'm not opposed to being in the kitchen, but I definitely don't love it… it's not like that fun for me to cook, it's like mostly a chore. It's like one of the better chores I think, but… if I were to cook two real meals a day, that would be, like, labor intensive for me.

Maria: Right, yeah.

Jen: I'm a… I would prefer something that was more assembling… (*laughs*)

Maria: Like a salad?

Jen: Yeah, or a sandwich or… like that feels more like *chh chh chh*, and be done.

Maria: Right, um, so when did you first start cooking for yourself then?

Jen: My junior year of college, which is when I moved off campus. Yep so that was kind of my first time, and that was actually like pretty bad…

Maria: Pretty bad?

Jen: Yeah, it was pretty bad. I would say almost everything I ate that entire year was frozen, or from a box, like almost exclusively everything… At least 90% or more, or was to-go… Or like, you know…

Maria: Right, right, from like a restaurant?

Jen: And it was kind of interesting, because at the time I didn't think that was that bad, I think I was just like, "oh, that's what people do, they just buy a bag of frozen peas, and then throw some on a plate and put it in the microwave or whatever…"

While Jen eventually found herself living in a house of more experienced cooks who helped her pick up some basic skills, Dan and Sofia have recognized their parents to be valuable resources for their everyday cooking queries. During our interview, Sofia talked

about how she has recently begun FaceTime-ing[13] her mother to get real-time feedback about how to proceed at certain steps of her cooking process. Similarly, Dan uses his father as his culinary sounding board, and often calls him to ask for advice about how to use unfamiliar produce items that arrive in his CSA—in some cases, even texting him a picture if he doesn't know the name of the item.

These intergenerational exchanges of knowledge, while clearly reflecting the infiltration of communication technology into our modern lives, are not altogether foreign developments. For example, in one memorable passage of Rebecca Sharpless' (2013) historiography, *Cooking in Other Women's Kitchens*, a young African American maid, Maggie Billings, uses a landline to call her older sister—the vogue technology in the early twentieth-century, to be sure—for advice about how to prepare chestnuts:

> And you know I had never fixed a chestnut before in my life. So I got me a hammer and hit this chestnut and boop. . . . I looked at that thing and I said where on earth did it go? Well, when I found it, I hit it harder; I thought Lord have mercy, how am I going to get these chestnuts fixed? Every time I hit it, it went up to the ceiling and back and all around the floor.
>
> . . .
>
> So my sister and I would always call one another and talk about things. So I went to the telephone and I called her, I said, 'Frances, tell me how do you fix chestnuts?' She said put them in some hot water. . . . I finally learned how. (Sharpless 2013:21-2)

In summary, learning to cook is not—and, never has been—a passive transmission from generation to generation, but always an actively acquired practice that involves exposure to some knowledge source, and the repetition of practice that allows the novice to

[13] FaceTime is an Apple© service that allows users to make video calls between Mac devices—for example, the iPad, iPhone, iPod touch, or MacBook.

incorporate various skills, techniques, and strategies into his/her culinary *modus operandi*. As Ingold puts it, "[t]o know things you have to grow into them, and let them grow in you, so that they become part of who you are (2013:1)."

Mediation of Food Agency

The various sources of cooking knowledge highlighted in the previous section hint at another critical component of this emergent definition—that is, that food agency does not exist in a vacuum, but rather within the broader context of society. Thus, as the home cooks prepare meals they are also seeking to adhere to various social expectations, norms, and obligations. Following my earlier review of human agency discourses, I argued that to apply the central tenets of agency to this emergent food-specific theory is to consider how the actor completing the work—the home cook—employs cognitive skills and sensorial perceptions, while navigating—and shaping—various societal structures in the course of setting and meeting personal meal preparation goals. The focus of the chapter up to this point, though, has primarily been on the very particular cooking practices and actions that occur within the home kitchen—in other words, food agency as it is *enacted*. Yet, for a more complete understanding of what it means to have food agency the *potential* for these particular practices must be understood in light of the forces that have influenced and shaped them. As such, I will now switch focus from the act of meal preparation itself to the more peripheral factors that influence how the home cooks structure their practices in the kitchen.

External Factors. One of my first windows into recognizing the influence of one's food environment over various components of meal preparation—and thus, one's capacity for food agency—came whilst reflecting upon my own experience as a patron at Burlington's outdoor farmers' market. The following is an excerpt from my fieldnotes written up during a food systems immersion course:

> This time of year, I spend almost every Saturday morning shopping at the farmers' market in Burlington's City Hall Park. As much as I enjoy each of my visits, it is the changes I encounter through returning week after week that excite me most. Bearing witness to the appearance of the first thin spears of spring asparagus, the sweet July corn, and the succession of strawberries to blueberries to raspberries helps me feel in touch with the progression of seasons and what is happening in the local soils. My degree of connection to the food I am purchasing at once seems deeper, and more direct. That is to say, in this setting the notion of a "food system" begins to feel less nebulous and more comprehensible; less rigid and more malleable. It becomes something I am not only witnessing, but also participating in, shaping, and supporting. (Author's Fieldnotes, June 2014)

While it was not my intent to do so, I now realize that in writing this passage I was beginning to recognize my own sense of food agency as a regular shopper at the farmers' market. From the scene I have described, it is clear that in this setting I have both a conceptual grasp over the system I am engaging with, as well as a secure sense of my place within it. The mutualistic push-and-pull between myself as a food shopper and the form and function of this particular food environment is also evident—that is, how the ingredients and local ideals sold at the farmers' market shape my personal meal preparation practices, and how my participation in this food economy fuels the supply-and-demand cycle that allows for the market's continued success. Thus, as I set out conducting my original fieldwork and secondary analysis for this project, I was sure to

clue into the emergence of such relationships between cooks and their food environments from observation and conversation.

Across the spectrum of experience levels, the home cooks talked at length about how they adapted their practices in relation to a variety of external factors. To name the major ones: the amount of *time* they had to make a meal on any given day, the influence of *place*—in terms of familial heritage, the ingredients and culinary norms of a particular locale, and even the organization of one's own kitchen—the latest *nutrition* recommendations—for example, switching to less-saturated fats and avoiding highly-processed foods, amongst other considerations—the *weather*—most notably, avoiding use of the oven during hot spells—and, of course, negotiating *cost* and other value-laden considerations whilst choosing items for purchase and deciding how to prepare them. Put in the framework of structure and agency discourse, these factors represent the *pull*; the forces constantly stretching the means, resources, and internal capacities of home cooks in various—often competing—directions as they seek to plan, shop, cook, eat, and clean-up meals all whilst negotiating a number of other daily responsibilities and commitments. While I would not say that there was much of a difference across the experience spectrum in terms of who was likely to be exposed to these factors, the capacity of the home cooks to *push* back surely varied.

Internal Factors. All of the categories covered thus far—from skills, to the senses, to knowledge—play into the home cook's ability to counteract external factors mediating the meal preparation process. However, the individual's own internal

capacity—for example, his/her personal sense of *self-efficacy*—represents a critical factor in the behavioral process of translating these abilities into action on any given occasion. As Sofia phrased it, "I think the thing with cooking is getting myself to do it. Once I'm in the act of cooking food, I actually enjoy that, but the thought that I have to go home and cook is just, like, daunting." Thus, in a Bandurian sense, it can be said that in order to confidently and consistently engage with the process of meal preparation the home cooks also have to feel empowered to take it on, and have a sense of efficacy in their own abilities. While the external structures shaping the practices of cooks across the experience spectrum did of course differ, the variance in the most influential structures—for example, time, income, food access—were not nearly as stark as the difference in the cooks' general mindsets and attitudes in relation to preparing meals.

Within three minutes of turning on my camera to film Sofia preparing rice and beans, she reminded me: "I am definitely an inexperienced cook I don't by any means think I am like a great cook or anything." Given that this was already established through her election to participate in this category of my study, I was curious as to what provoked her to make such a qualifying statement in my presence. While Sofia was the first to voice her inexperience in this way, she was not the last. I actually ended up hearing similar statements made by the other two inexperienced cooks in the study as well. As I reflected upon all of my research visits and pored through the data, I thought more about what purpose this might have served for these home cooks. Was it a way to shield themselves in the case of a poor cooking outcome? In the sense of, "okay, I am telling

you that I am not very good, so if things go wrong you cannot blame me." Perhaps a case of setting expectations low to temper the experience of a bad outcome, while at the same time elevating a prospective success to new heights?

In our post-meal interview, Jen provided a little more context to her admission, explaining that her disavowal of her own cooking abilities has been formed through years spent cooking with friends and partners of a similar age who were more skilled and knowledgeable about cooking than she was. Dan, who also self-qualified his abilities, managed to put a brighter spin on things in recognizing that he is on a trajectory of improvement: "I don't feel like I'm the best cook, but I feel like… I'm not necessarily comfortable cooking, but I am, like, comfortable *trying* to cook. Like I don't, I'm not embarrassed about things, and I guess also if I'm cooking for myself that doesn't matter." I found this last part of Dan's comment intriguing, as it is almost as if he has found a way to relieve part of the strain that comes from others' expectations of his cooking, thus allowing himself the space to learn and grow without the need to please others on top of it. Although, in some sense, it could be argued that as a male in a society where it is still, primarily, the norm for females to do most of the domestic cooking, he has already been relieved of the societal expectation that he should know how to cook well. That said, though, his attitude towards cooking seemed to fuel a healthy and curious relationship with the practice. Dan might not be the best cook, but he keeps at it, and from our conversations it was clear that he is only getting better with each attempt.

Here, again, with these internal factors I find the contrast between the

inexperienced and experienced cooks quite telling. Towards the end of our interview, I asked Julia to discuss whether she ever runs into any barriers throughout the process of preparing a meal:

> *Julia*: …I mean what would be an example of a barrier?
>
> *Maria*: So, like, today you didn't have all the ingredients you needed for the [gazpacho]… (oh, yeah)…you wouldn't just scrap it and stop..?
>
> *Julia*: No, no, it's funny 'cause I'm actually, there's a school nutrition conference next week, and I'm presenting there because I was part of this cookbook project with these lunch ladies from all over the state of Vermont… I'm presenting at that conference next week with a couple other women that worked on it. And we're talking about, you know, how to utilize that, and I'm gonna talk about making use of what you have. Uhmm… I think that comes with experience. I was talking about it yesterday, not to go off on a tangent, but we're working with an interior designer for the restaurant, and he's used to working with very big budgets, and mine's not a big budget, and now I was talking with [my fiancé's] brother yesterday, and like saying… I think if you're good at what you do, then you can make it work, no matter what type of work you're in. Like, you know, your experience, like if it's design, or it's cooking, you know how to make it work. I mean like a doctor, they have decades of experience, then they probably can… there's certain things that they can do with, you know, with limited equipment…

From this and similar expressions of a can-do nature, it became clear that the experienced cooks are able to push back against the external structures not only because of their strong personal dispositions in regards to cooking, but also because they have the education and experience that allows them to embody cooking practice in a truly agentic manner, as evidenced through the videos and narratives illustrating this chapter. As Ingold (2013:1) might say, these cooks have grown into cooking, and cooking has grown into them.

Conclusion

In the end, the most distinguishing variable across the spectrum of home cooks was the actual selection criteria used to recruit them: their level of experience. By the very nature of their participation, it was clear that all of these cooks were engaged in preparing home cooked meals fairly regularly. However, as the videos, discussions, and interviews demonstrate, there were clear differences in the fluency with which home cooks of varying amounts of experience were able to employ the many components of food agency—from skills, techniques, and strategies; to the senses and synaesthetic reason; to confidence and self-efficacy—in preparing meals that they and others found satisfying. Given that the least confident cooks in the study also had the least amount of life experience—which, they all cited as one of their greatest cooking weaknesses—this leaves me with a pressing question of the classic chicken-and-egg variety: which comes first? Is a strong foundation of confidence and self-efficacy around meal preparation a prerequisite for gaining the other basic components, guidelines, and knowledge; or, does having a solid foundation in those areas fuel one to develop confidence and self-efficacy in his/her cooking?

The novice cooks seemed to think time was the basis for both forms of progression. For example, here is an excerpt from my interview with Sofia as she describes her weaknesses as a cook:

> My weakness would definitely be experience (*laughs*), and you know, just understanding, getting a better sense of like what to do with certain foods, and like when to eat it, and sometimes I run into the problem where I'm like, "could I eat this tomato, or is it too spoiled? Has this been sitting out

> for too long?" So, stuff like that. Just stuff that you, like, pick up with time, and I think that, you know, I'm getting to a point where I'm becoming more comfortable, like, trying new foods, so it also helps that I'm doing that. But, definitely experience is my weakness. I definitely have a lot to learn about, like, cooking and like preparing stuff, so that will come with time.

As a young cook myself, I have to partially agree with Sofia in the sense that I believe there are certain aspects of meal preparation that one has to pick up through experience of the life course variety. Yet, following my detailed analysis of the learning models whereby skill and perception are transmitted from expert to novice, I also know that the passive passage of time is not what allows a cook to progress. Cooking, as my advisor likes to remind me, is not learned through osmosis.

In this chapter, I have compiled cross-sectional snapshots of the practices of home cooks of varying experience levels and, in so doing, have illustrated the concept of food agency across a fluid spectrum. However, while this chapter has done much to advance an understanding of food agency as it *is,* what still lacks is an understanding of food agency as it *becomes*. What does it actually take for cooks like Sofia, Dan, and Jen to become cooks like Julia, Michael, and Ross? While I resist the idea that culinary school is the only path leading to high levels of food agency, and recognize that the realities of modern life make the transmission of meal preparation practices within the household an unreliable model, I believe that this chapter offers a fertile basis from which to design more efficacious educational models for empowering individuals to gain agency around meal preparation. As such, the second study in this thesis will explore in greater detail the question of what it takes to progress in the key areas of food agency from the vantage of

college students learning to cook under a Deweyan pedagogical model in the University of Vermont's foods lab. Before detailing the methods used in that study as the subject of the next chapter, I will briefly summarize the main findings from this ethnographic exploration of home cooks.

Summary

The following points made throughout this chapter deserve restating before moving on to the next major area of inquiry. First, this chapter has demonstrated that in order to understand food agency along a fluid spectrum, each thematic component (e.g., the nodes of the concept map, see: Figure 2) must be viewed along an independent low-to-high gradation. I have found that home cooks of all experience levels possess the basic scaffolding for food agency, yet the degree to which one develops fluency or mastery in each area is a product of experience, education, and engagement; and thus, is highly varied from cook to cook. In sum, food agency is not a static entity that an individual simply possesses, but rather a responsive capacity that one can develop to varying forms and extents.

Second—in response to the question as to the relation between broader structures and an individual's ability to consistently engage with the process of meal preparation—it appears that the greatest constraint amongst my participants was not the pull of external societal structures, as initially suspected. Rather, through empirical analysis, it became clear that the home cook's internal capacity for food agency—a conglomeration of skills, techniques, and strategies; guidelines and synaesthetic reason; confidence and self-

efficacy—also played a considerable role when it came to preparing meals with fluency and frequency. This preliminary finding, while significant, should not yet be broadly generalized given the general lack of diversity amongst the home cook participants in this study. Thus, future research ought to explore the ideas advanced in this chapter amongst participants in more diverse demographic—and particularly, socioeconomic—circumstances. Another next step for this research will also be to consider food agency from an educational stance. If individuals are taught the basic principles of meal preparation using a curriculum that promotes the core concepts of food agency which have been mapped out in this chapter, could this aid their overall progression towards becoming more empowered and fluent meal preparers?

CHAPTER FIVE

METHODS II: FOODS LAB ETHNOGRAPHIC EXPLORATION

In the previous chapter I defined the components of food agency by looking across a spectrum of cooking practices. Those insights—captured on video and elaborated through interviews—provided snapshots into the practices of the twenty-seven novice, intermediate, and experienced home cooks who participated in this first portion of the project. The second study of this thesis builds upon the fine-grained understanding of food agency advanced in the previous chapter, to explore some of the questions that remain unanswered. Namely, questions surrounding the nature of what it takes to promote food agency from an educational standpoint, and what it actually looks like to *develop*—as opposed to just *enact*—food agency. This study again employs the ethnographic methods of videotaping and interview, yet this time in order to pursue questions of a more longitudinal nature and in a more controlled environment. This chapter will detail the specifics of those research activities.

Target Population and Recruitment

Other scholars have recognized college students as a prime demographic for cooking interventions. These young adults have just reached a period of their lives where culinary lessons can be applied *in situ*, while at the same time their developing cooking practices are not yet fixed, and thus they are often receptive to new forms of instruction (Short 2006:117; Levy and Auld 2004:200). Further, my review of Belliveau's (2007) cooking pedagogy based on key tenets from John Dewey's 'learn by doing' educational

philosophy revealed an approach to culinary education in the university-setting that aligns well with the core tenets of food agency. Therefore, this second study will use one of Belliveau's foods lab courses as a basis to explore how students learn to cook within this model, while tracking their development in various areas of food agency. To follow, I describe the specific research activities that were conducted to pursue these objectives.

On the first day of the fall 2014 semester, all thirty-two students enrolled in Dr. Belliveau's two sections of ANTH 185/NFS 195: Food and Culture were briefed on the goals and procedures of this research study, and informed of the study's inclusion requirements. These were, that participants must be officially enrolled in the course, 18 years-old or older, and willing to be videotaped and audio recorded for research purposes. All students interested in participating were then administered a brief demographic questionnaire (see: Appendix F), as well as a twelve-item survey developed by Bell and Marshall (2003)—the "Food Involvement Scale" (see: Appendix G).

The Food Involvement Scale (FIS) is designed to provide a numeric approximation of "the role of food in a person's life" (2003:236), and thus was considered a decent proxy for a student's level of cooking experience prior to taking the lab. The scale reads as a survey, and is composed of twelve items written in the form of short declarative sentences. Users express their level of agreement to these statements using a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Half of the items are framed positively—for example, "I enjoy cooking for others and myself"—and the other half negatively—for example, "I don't think much about food each day". The

variation in sentence structure helps to dissuade users from agreeing to all the items in order to increase their score, but it also makes it necessary to reverse the scores of these items—1 becomes 7, 2 becomes 6, etc.—to calculate the final food involvement score.

Of the thirty-two students enrolled in the lab, twenty-eight opted in by fully completing the survey packet. Upon reversing the scores of the negative items in the FIS, each student's results were totaled by summing the score (1-7) marked for each item. The theoretical range of possible scores for the FIS—from least to most food involved—runs from 12-84. The range of scores in lab section A was 50-80 with a median of 75, and the range of scores in lab section B was 53-84 with a median of 74. Each lab section was then divided into quartiles. One student was selected from each quartile with individual selections made in order to maximize the spread of scores, while also as best as possible replicating the gender and class year distribution of the whole lab section. In each lab, the students from the highest two quartiles and lowest two quartiles were paired together so that the partners would be working—and in theory, progressing—on the same level and at a similar pace.

Research Activities in the Foods Lab

Prior to the start of the semester, I held a meeting with the two course instructors for Food and Culture: Dr. Cynthia Belliveau who taught the labs, and Dr. Teresa Mares who taught the lecture. Together, we reviewed the lab syllabus and chose six weeks spread over the course of the semester to film the students in order to best capture a sense of progression. Based on Dr. Belliveau's and Dr. Mares' previous experience with

students in these labs, and discussion of the skills and techniques used in the recipes being made each week, we determined that the best opportunities for filming over the thirteen week semester would be in weeks: 2, 5, 6, 8, 11, and for the final practical in week 12. We also recruited an on-staff videographer from the University of Vermont, Eric Melton, to do the actual filming of the students. Eric and I met in the foods lab before the first day of in-class filming, and came up with a plan for how to assign stations so that he could easily film the four student participants in each lab section with minimal chance of including other students in the frame[14].

Research Activities Outside of the Foods Lab

Similar to the research with the home cooks, each of the eight students were also interviewed to gain greater insight into their experiences with cooking inside and outside of the lab setting. In alignment with the goal of assessing individual progress, each student cook was interviewed on two separate occasions over the course of the semester, once at the beginning and once at the end of the semester. The first semi-structured interview guide (see: Appendix H) was designed to allow students to freely discuss their current cooking situation, as well as their overall process and relationship with meal preparation. The second interview guide (see: Appendix I) built upon the first, focusing more on aspects of continuity and change in the students' cooking practices after having taken the lab. All sixteen interviews, lasting an average of one hour each, were recorded on a password-protected iPhone, and later transcribed verbatim for coding and analysis.

[14] The students were placed at the end lab stations directly across from one another, allowing Eric to easily pan back and forth to capture the action at both stations in the kitchen. Freed from manning the camera, I was permitted to fill my instructional and support role to all the students in the lab while also having more time and space to act as a participant observer in the kitchen.

On five occasions over the course of the semester, I also attended the course lecture with all thirty-two students on the days after filming to hear the students talk collectively about their experiences in lab, and to better understand the integration between lab and lecture from the students' perspectives. My insights from these visits were written up as part of my fieldnotes taken over the course of the semester.

Computer Aided Qualitative Data Analysis (CAQDAS)

Again, given its utility in managing text and audiovisual data, I used the CAQDAS package ATLAS.ti 7 to systematically code and analyze the database of foods lab videotapes (*n=12*), student cook interviews (*n=16*), and fieldnotes taken over the course of the semester. I continued to follow an interpretive approach to coding and analysis based on Neuman's (2011) stages of *open coding*, *axial coding*, and *systematic coding*, while this time also using chronology and the thematic framework of food agency from the previous chapter to guide my analysis in a more comparative manner. In this way, the process of coding and analysis for this second study built upon the themes that emerged in the earlier study.

CHAPTER SIX

THE PROGRESSION OF 'FOOD AGENTS' IN A UNIVERSITY FOODS LAB

Introduction

An aspect of cooking that has always fascinated me is the notion of transformation. Watching as a clear viscous egg white becomes opaque and firm after being broken onto a hot black skillet. Listening as steam and pressure builds in kernels of popping corn; that low whistle serving as a subtle crescendo to the cacophony of pops and pings as the white fluffy starch swells and bursts from each shell. Yet, I now realize that fixating on these physical transformations of natural materials has left me somewhat blind to the more affective transformations that first occur within cooks themselves. It has left me unappreciative of the experience and education that has shaped their practices. It has allowed me to go unknowing of their level of skill, technique, strategy, and sensorial knowledge. It has kept me detached from their capacity to manipulate an array of food items and incorporate them into dishes and meals that are satisfying, nourishing, and perhaps—like the processes described above—even a bit alchemical. As I now know, cooking is as much a product of personal transformation as it is of physical transformation.

Over the course of the semester, as I watched the students cook week after week in the foods lab, my attention began to shift from the meals to the makers. As Serge (my co-TA) and I made our final drive up the sidewalk in front of UVM's Marsh Life Sciences building with a truck bed full of groceries—which, at that point in the semester

had become a relished Monday evening ritual—I was excited at the prospect of bearing witness to both forms of culinary transformation in the foods lab the following day. The transformation of the mystery basket ingredients we had purchased into cohesive dishes, at the hands of students who through a semester of education, diligence, and engagement had progressed significantly as young cooks—and dare I say, had begun the transformation into 'food agents'.

Building upon the structural framework for food agency and the notion of a spectrum that emerged from my close study of home cooking practices in Chapter 4, I will pursue a distinct yet related set of exploratory objectives in this chapter, which are: 1) to understand how students learn to cook and develop aspects of food agency over the course of a semester, and 2) to consider how the students' experience in a controlled lab setting shapes their ability to learn and develop as 'food agents'. Again pairing illustrative video clips with descriptive narration and analytic commentary, I will document the experiences of the eight student cooks in a thematic yet longitudinal manner (for a full demographic summary of the student cooks, see: Appendix J).

A Pedagogy for Promoting Food Agency

Theoretical Underpinnings

Before jumping into an account of the students' experiences in the foods lab, I first must map out the relationship between the Deweyan cooking pedagogy used to teach this course and the theoretical and empirical aspects of food agency identified in earlier chapters of this thesis. In her doctoral dissertation completed at the University of

Vermont, Cynthia Belliveau (2007:3-21)—now the instructor of Food and Culture and other foods lab courses at her *alma mater*—identified four key premises from John Dewey's pragmatic pedagogical philosophy that signify the unique potential for cooking as both a mode and subject of learning in higher education. The four premises, which have become the basis for her own cooking pedagogy, were as follows: 1) *aims and means*, bridging the gap between school and home by making lessons applicable and interesting; 2) *the theory of the act*, allowing students to follow a process to completion, thus allowing full engagement in the notion of "work-product-project"; 3) *a community of inquiry,* which opposes the common model in higher education of the isolated classroom experience and treats education as cooperative and democratic; and 4) *value-theoretic vs. game-theoretic* situations, which reprioritizes the educational experience as a whole over the blind pursuit of marks on a transcript.

These overarching principles nicely align with other ideas identified as best practices for hands-on cooking education presented earlier in the literature review. For example, the Deweyan approach supports Frances Short's (2006) idea of cooking as a person-centred [*sic*] task by looking inward at a student's own educative aims and means, while also outwardly emphasizing that each pupil has a unique role within the classroom community and, taken further, in society writ large. These ideas also align with Tim Ingold's insights on teaching skilled practice through promoting an 'education of attention' (cf. Gibson 1979:254). According to Ingold, this entails, "…introducing novices into contexts which afford selected opportunities for *perception* and *action*, and

by providing the scaffolding that enables them to make use of these affordances (2000:354, emphasis original)." In sum, Belliveau's pedagogical design for the foods labs strives to create a particular environment—adhering to the Deweyan principles, discussed above—from which learning can then follow.

This broad set of ideals is built into the day-to-day foods lab experience through a number of thoughtfully designed instructional practices that promote areas recognized to contribute to food agency. Thus, as a prelude to the rest of the chapter, I will provide a narrative overview of the first day of the Food and Culture lab to give readers a sense of the fluid nature by which core practices are introduced and reinforced to students within the foods lab environment.

Day One in the Foods Lab: Pedagogy in Action

The room was quiet just before 10 o'clock as the first section of Food and Culture students cautiously filed in. As they surveyed the room, their expressions ranged from excitement to bewilderment at the unfamiliar sight of bowls of fresh produce, stainless steel refrigerators, and a three-bay sink in a university classroom. As the students made their way to the back of the room, their attention was drawn to the line of small white plates of unidentified herbs freshly picked from the gardens just outside. Encouraged by their instructor Dr. Cynthia Belliveau—or, Cynthia as they would call her—to pick up, inspect, smell, touch, and taste the herbs the students were immediately placed into an environment where *sensory engagement* was valued as a mode of learning and knowing. To further emphasize this, the students' sensory abilities and product knowledge were put

to the test in the first moments of class as they were asked to collectively identify the various stems and leaves laid out before them. They were quick to point out common items like parsley, basil, and cilantro, but for less common herbs like chamomile, oregano, and marjoram many needed assistance.

Upon putting names to the mystery herbs, we transitioned to putting names to faces in effort to begin to build a sense of *community* in the lab. I prompted the students to go around and share their name, class year, and a description of the last memorable meal each had eaten. Their stories were evocatively detailed, and spoke to a sense of excitement and curiosity about foreign foodways: from buttery *pierogi* eaten in Poland, to a richly spiced Indian *dal*, to freshly caught and prepared bass burgers cooked at a lakeside camp in Ontario. Truthfully, this was not all that surprising coming from a group composed primarily of anthropology and global studies majors.

After a trip out to the gardens to introduce the students to the herbs and produce they could use to accent their dishes—up until the first fall frost, at least—the students reconvened in the foods lab classroom. Here, they were introduced to the concept of the *lab report* (see: Appendix K), which would serve as a mode of both self-learning and assessment; a space to make sense of their experiences and chart their progress after each three-hour lab period. One aspect of the lab report, *mise en place*, was further explained as the subject of their first classroom lesson. As discussed in an earlier chapter of this thesis, *mise en place* is both an organizational procedure for setting up one's kitchen space before starting to cook, as well as a general conceptual strategy for maintaining

order and efficiency throughout the process of meal preparation. The students were eased into the idea through a simple and familiar entry point: the hypothetical preparation of a peanut butter and jelly sandwich.

Cynthia stood at the white board, Expo marker in hand, and asked: "so, what are the steps?" The class offered a number of suggestions—things like, "get bread", "spread the peanut butter", "cut the sandwich in triangles!"—only to have Cynthia respond with specifying questions—"what kind of bread?", "pre-sliced or a whole loaf?", "how many slices?", "toasted or untoasted?", "what tools do you need to do that?", etc.—as she began to draw a picture of her sandwich-making station on the board. The exercise helped the students understand just how many decisions are made in the course of performing any given kitchen activity, even those that at first appear simple and familiar. This exercise also demonstrated the importance of their weekly pre-laboratory assignments. These assignments were crucial to building the iterative model of pedagogy used in the foods lab and involved: 1) to read through their assigned recipe/s, and come in with a drawing of how they planned to organize their station; 2) split tasks between themselves and their partner; 3) to think about timing and sequencing in order to make their work in the kitchen efficient and purposeful.

Next on the agenda was to assign the students into their *partner groups* and move into the adjacent kitchen where they were familiarized with the set-up of the kitchen stations. Each station, occupied by two students, consists of an oven and four-burner gas range, a sink, and cabinets stocked with pots, pans, and essential cooking equipment. The

students were also briefed on hygienic and safety protocols, and then asked to gather around the stainless steel display table for their first kitchen *demo*. The weekly demo is an important component of Cynthia's pedagogy, serving as the *exposure* and *instruction* that students try to replicate through their own *repetitive practice*. The first lesson was an introduction to basic *knife skills* that the students would use to make a simple salad of greens, herbs, and cut vegetables. Specifically, students were shown how to properly handle their chef's knives and to then chop an onion using the French method, *bâtonnet* a cucumber into "little swords", *julienne* a carrot into long thin "match sticks", and *chiffonade* basil and other herbs into "thin ribbons". Cynthia also showed the students how to prepare a basic vinaigrette using a 3:1 oil to vinegar ratio. First, she added the vinegar and emulsifying agents—in this case, black pepper and Dijon mustard—to the bottom of a medium glass bowl. Next, Cynthia demonstrated how to slowly drizzle in the oil from up high, allowing it to hit the vinegar in a thin stream, while simultaneously whisking the contents of the bowl in order to fully emulsify the dressing and slow the inevitable separation of fat from liquid. This first lesson, like all the others to follow, struck a delicate balance between *structure* and *freedom* so that the students would learn to respect guidelines of technique, tradition, and culinary science while also feeling that they could express themselves creatively as they became more comfortable with basic procedures and parameters.

After being sent back to their stations to begin their knife work, those next thirty minutes in the kitchen were perhaps the quietest of the semester. The students, not yet on

conversational terms with their partners and peers, worked intently to repress ingrained habits and mimic the knife work they had seen performed by their instructor. As they worked, Cynthia, Serge, and I circulated the lab to provide additional guidance and instruction for those that needed it. The students used their prepped carrots, cucumbers, and herbs in combination with an assortment of fresh greens to prepare small salads to share in the first group meal. The finished salads, dressed with vinaigrettes, were taken back into the classroom where the students were first asked to perform an attentive sensory profiling exercise paying attention to the appearance, mouth feel, smell, flavor, and memories evoked by their salads. This would become a weekly exercise, and a mode for understanding and modifying decisions made during the cooking process with future recipes. The table had also been set with a spread of fresh baguettes, sharp Vermont cheddar cheese, butter, whole grain mustard, and sweet pickles; a modest yet satisfying lunch to conclude this first day in the foods lab kitchen.

The description of this first lab period reveals how the students gained exposure to the principle activities and frameworks that would be built upon in each lesson, and guide their progression towards greater food agency. To recap, these critical areas were: *sensory engagement,* building *community* and a *partner-based* learning environment, introducing the *lab report* as a critical benchmark to self-progression, *mise en place* as a kitchen procedure and a conceptual strategy, the kitchen *demo* as a means to begin the learning cycle of *exposure* followed by *repetitive practice*, and laying out the parameters of *structure* and *freedom* which the students would have to strike a balance between in

each subsequent lesson.

The Progression of Student Cooks into Food Agents

The remainder of this chapter will document the trajectories of the eight students in areas that have been empirically shown to play a role in an individual's ability to prepare a meal—and thus, contribute towards their capacity for food agency. As an orientation to the videos, each has been compiled to proceed chronologically over the course of the semester and captions have been added to the lower right-hand corner of each frame to indicate the week of the semester in which the scene was filmed. The students in each lab section were also strategically assigned to stations so that the pair scoring higher on the Food Involvement Scale—in lab A, this was Emily and Lucas, and in lab B, Claire and Brian—would always be cooking at the station against the wall. Subsequently, the pairs with lower food involvement scores—in lab A, Rachael and Phoebe, and in lab B, Fern and Eliza—always occupied the opposing station that had the central open kitchen space as its backdrop.

The Basic Components of Food Agency

As described in the chapter exploring the practices of home cooks, there are certain basic components that are necessary in order for cooking to happen on any given occasion—these can be pared down into the categories of: *skills*, *techniques*, and *strategies*. Building upon the notion of a food agency spectrum, these first three videos have been compiled to portray the students' progression in these key areas of cooking practice across the weeks of the semester.

Cooking Skills. The video clip, "Progression in Knife Skills", opens with Claire and Brian working side by side in their second week of lab, as they begin to dice onions for a potato sauté. The partners start out cautiously, staring down at the peeled onion halves laying flat on their cutting boards. Brian initiates a dialogue with Claire for reassurance that the first "flat" cuts made in the onion are followed by cuts going "down"; she confirms, making a downward cut in her own onion half to show him. Claire needs a little guidance as well, though, asking Brian to pass the ruler so that she can visualize the size of a half-inch dice before proceeding with her own knife work. Despite the fact that both Claire and Brian scored as highly food involved, and have been enthusiastically cooking at home since before entering high school, it is clear from this first scene that they are going through a phase of adjustment as they work to conform old practices to new expectations. In our last interview, Claire reflected back upon those early days in the foods lab: "…it's almost like you're redoing everything you've learned, and like completely changing your skills, which is weird."

The next week of filming came three weeks later, and the transition from Brian and Claire's timid and deliberative approach from week two seems a far cry from Emily's nimble and confident approach in week five. The segment is brief, but her actions are fluid and swift as she transforms her onion half into a fine dice to flavor the filling of her beef *momos*[15]. Not all the student cooks progressed at Emily's pace, though, as evidenced by Eliza's effort in week eleven. Eliza was one of the least food involved cooks from the

[15] A *momo* is a Nepalese dumpling, typically cooked in a steamer. They are a staple in Nepali cuisine and can contain either ground meat or vegetable fillings, ornately packaged in a thin layer of flour-and-water dough.

start of the semester, and as a studio art major with a very free spirit, she struggled all semester to absorb the guidelines and parameters that she was exposed to. Instead of slicing the onion delicately, she saws at it aggressively. Instead of making clean downward cuts to section her onion into a neat grid, she chops roughly—and, at somewhat of an angle as she fails to turn the onion half to face her squarely. This approach causes large chunks to fall from the onion before she even has a chance to begin the actual dice. Across the lab bench, Brian seems to be off to a better start, making a smooth rocking motion with his chef's knife to release a cascade of evenly sized onion pieces. However, towards the end he appears to be thrown off by the unusual squat shape of this new variety of sweet Mexican onion, and reverts to making vertical cuts around the perimeter, which he then awkwardly shaves off.

Moving to the final week of lab, we see Lucas as he intently—yet, perhaps a bit overzealously—peels back the skin and a few layers of flesh on a yellow onion bound for a vegetarian chili. He is shown chopping the same onion moments later, yet he appears rushed and disorganized, with other ingredients cluttering the surface of his cutting board. Perhaps, Lucas is feeling the added pressure to perform efficiently for this final mystery basket assignment. In our final interview, Lucas spoke about the tension he often feels in balancing his desire to devote a lot of attention to individual tasks and the need to attend to other components of the meal. Asked to describe his strengths and weaknesses in the kitchen during our final interview, this was Lucas' response:

> I'm pretty good at cutting meticulously and cutting small little slices, and doing things pretty uniform, and uh… I guess I'm not really daunted by huge tasks, like cutting up a huge case of tomatoes, or whatever. I don't

> know, I'll just sit there and do it. But, at the same time, I just like doing the same thing over and over again, so… I guess I get distracted and sort of lose the higher concept of the meal, I don't know…

At the lab bench next to him, Emily seemed to be having an easier time shifting between preparing her sweet potato tart and helping to prep onions for the chili. She appears confident and composed as she fluidly dices her half of the onion, with Cynthia standing right over her shoulder making comments and taking notes on her grading clipboard.

However, if Lucas was succumbing to the pressure, Phoebe just on the opposite side of the lab bench seemed to be even more affected, as evidenced by her more frantic approach to the onion. She is seen attempting to pare the onion by swiping the skin away from her with her knife. This is, of course, not the correct approach she had been shown in numerous kitchen demos; that is, not the 'pinch and peel' motion that Lucas was shown to be using. Despite her seeming engagement and effort in past labs, it appears that Phoebe has not yet embodied the motions of peeling an onion with the same dexterity that Lucas has. In the afternoon lab Brian is also shown paring onions with a fair amount of skill and confidence; working quickly and efficiently. However, later on it seems that his desire to cut a fine dice from the onion for his jambalaya is stymied by his decision to make a series of many shallow cuts, instead of the smooth and deep cuts that Emily was seen making in the earlier lab. Brian clearly has a conceptual idea of how he wants to transform this onion, and is working much more deliberately than in week two, yet he stops his cuts too short and ends up hacking the onion rather than performing a clean dice. He has the theory of the lesson in place, but still lacks the practice necessary

to execute the task with great skill.

Cooking Techniques. As with the home cooks, sautéing was a mainstay technique used in many of the students' dishes in the foods lab. They were taught explicitly about the term's French etiology—from the verb, "to jump"—and that to achieve this effect in their cooking they would always have to follow the same basic procedure: heat the pan, add oil/fat, let heat until the surface shimmers and emits heat, add uniformly chopped ingredients in the order of highest to lowest water content to maximize browning, while also minimizing the chance for steaming.

The first portion of the video "Progression in Technique: Sautéing" shows Emily performing this technique on a pan of onions for a vegetable dish based around the late summer harvest: *ratatouille*. Across the bench, Rachael checks on her eggplant, which is being cooked with ample space in its own covered pan. Upon noticing the golden brown color on her eggplant, she exclaims, "damnnnn", quite visibly pleased with the outcome of her technique. Her announcement attracts the attention of her classmate, Emily, who compliments her on her results from the other side of the lab bench. As the least confident and least food involved cook at the start of the semester—as evidenced by survey responses, FIS score, and the one home-cooked meal she admitted to preparing each week—this moment was certainly a big deal for Rachael. At the beginning of the semester she described her outlook towards the class very pragmatically:

> …it's hard 'cause for me, [the lab] isn't practical. Like these aren't things that I am going to be using, I can just guarantee it. I will *never* cut an onion like that outside of this class. Just because, like, I'm not even going to have knives that big ever, probably.

From this first interview, Rachael made it clear that she enjoyed the lab for the break it provided from her typical academic routine, yet she was adamant that it would not affect her home cooking practices in any significant way. Yet, clearly, this eggplant was a turning point. Later that night she wrote the following unsolicited email to Cynthia:

> Hi Professor,
>
> I just wanted to reach out and thank you for today's lab. I've never cooked like that before, so determined and self-confident, and I've definitely never received praise for my cooking skills. I went home and even though I was tired and swamped with work, I looked at what I had in the fridge and turned on the oven with confidence. I made asparagus and pasta with tomato sauce, which to you probably sounds like nothing, but for me it was a huge step. I showed all my roommates and had them all try it. I'd attach a picture but I still haven't nailed the appearance aspect of cooking. Feeling like I was completely in control of what I was putting in my mouth gave me a lot of energy and enthusiasm, something I needed to start my homework. That's super cool and it's all thanks to you! I'll never forget this day; in the future when I'm a super accomplished chef and I'm making something amazing for my kids I'll tell them about my eggplant. Have a good night!

Later in the same lab, Rachael further applies the concepts she has been taught about proper sautéing technique and decides that more oil needs to be added to her pan of onions, peppers, and *bouquet garni*[16] to prevent them from sticking to the pan. Abiding by the rule that cold oil should never be added to sautéing ingredients so as to prevent a greasy dish, Rachael makes room in the pan to add a little more oil, allows it to heat in its own separate pool, and then incorporates it to coat the rest of the sautéing vegetables; a fine example of translating the theory of a lesson into action.

[16] A *bouquet garni* is a tied bundle of aromatic herbs or plants that lend flavor to a variety of dishes—most commonly, sauces, soups, and stews—yet are easily removed before serving (Montagné 1961:165)

In the afternoon lab that same week, Brian also seems cognizant of the principles of heating that are the basis to a properly executed sauté. He checks the temperature of the oil—which has been made to cover the bottom of each pan—first by placing his hand above it, and then by dropping in one piece of onion as a test: no sound, no movement, not ready yet. Moments later, the audible sizzle as the onions and eggplant hit the surface of the oil serves as assurance that his patience has paid off.

As the scene transitions to week eleven, the low continuous sizzle coming from Emily's pan of onions and green peppers suggests she has gotten a handle on the sautéing technique by the end of the semester. In the afternoon lab, Fern is seen placing her hand over her heating pan to be sure it is hot enough to lend a nice touch of browning to the onions and peppers serving as the flavor base for a black bean paste. Across the bench, Brian's amply heated pan greets the added onions with a loud sizzle, which he confidently flips in the pan. However, he nearly made a mistake in adding the onions and the beans together, which would have led to very little, if any, browning. Luckily, his partner caught the mistake before it was too late. From these scenes late in the semester, it appears that the students' progression in the technique of sautéing has been far more universal than that of knife skills. This is, perhaps, due to the greater amount of repetitive practice needed to embody the dexterity of a skill, such as knife work, versus the more forgiving conceptual guidelines that underlie a technique, such as sautéing.

Techniques, again, serve as a means to an end rather than a strict and rigid procedure, and thus can be viewed as adaptable tools in the cook's overall *modus*

operandi. Thus, for the final mystery basket it was telling to watch the students push the boundaries on the basic principle of this fat-based cooking technique. Eliza, now familiar with sautéing onions and a variety of other produce items, decides that a similar technique could be used to lend some extra texture and flavor to her boiled potato *pierogi*. However, when a wet dumpling hits hot fat there are consequences, as evidenced by the brief flare up of red flame at the start of her segment during the final mystery basket. On the opposite side of the lab bench, however, Brian certainly appears to have much more fully internalized this principle of food science, and was sure to blast chill and dry his bacon corn mush fritters on a metal sheet pan before taking the technique of a sauté to the next level: deep frying. The white surface bubbles that greet the addition of each corn fritter, as well as the lack of smoke, indicates that he is maintaining control over his fry station despite the added challenge he has assumed in taking this fundamental cooking method to a more complex level for his final meal in the foods lab kitchen.

Shifting back to the other side of the bench, Eliza's haste in scooping the dripping wet *pierogi* straight from pot to pan has set her up for real kitchen danger. As the water from the dumplings hits the smoking hot pan, it turns to steam and rapidly expands in volume whilst spreading the reach of the vaporized oil, now engulfed in deep red flame. She reacts quickly by turning off the gas heat source, but was visibly shaken from the event. It became clear during the final interviews that this was perhaps the only way the lesson of not mixing wet and dry heat would sink in for Eliza. As Fern, her partner, said, "Yeah, with [Eliza] it's like, um, you have to tell her something five times and she'll still

be doing the thing you told her not to do. And not just in cooking, in anything, because I've known her. And so, she's like, 'once it happens to me, then I'm good.'" Eliza confirmed this separately in our final interview of the semester as well: "Yeah, I'm definitely one of those people that learns by a mistake, you know what I mean? Like after I set a fire in the classroom, I will now learn to never put water in a hot pan." In sum, sautéing is a basic technique that can lead into further applications of varied complexity. However, as the contrasting experiences of Eliza and Brian suggest, it is essential to first internalize the basic principles of the task before attempting to push the creative bounds towards achieving more challenging ends. As always, activities in the foods lab must maintain a delicate balance between structure and freedom.

Cooking Strategies. One of the central lessons that Cynthia promotes in the foods lab is the concept of *mise en place.* The students learn quickly that their engagement with *mise en place* does not end when they finish their pre-laboratory assignment of reading through the recipes and drawing a schematic of how they will set up their station. This is not a rote exercise. It is a cognitive simulation that better prepares the students to set up their stations, lay out and prep their ingredients, and cook their dishes with a sense of fluidity and efficiency. The video "Progression in Organizational Strategy: *Mise en Place*" opens with Emily beginning her work on the first recipe of the semester, a potato sauté. She begins rolling up leaves of basil to be cut into a *chiffonade* only to realize that her knife is still enclosed in its plastic blade guard. She lets go of the basil, letting it unravel as she struggles to open the knife case—which, as she explains, is

something she does not have at home, and thus is not used to thinking about. She rolls the herbs back up again and begins slicing them into the thin namesake ribbons. After finishing her knife work, she is now left with the refuse of stems and some pepper tops. At this time, she also realizes that she has not yet laid out her compost and produce bowls to organize the ingredients for the sauté. As she takes them out and places them on the counter, she talks through what is to go in each bowl to ensure that there is a shared plan in place between she and her partner. It is clear, then, that in this first week of lab Emily is still in a state of reaction; negotiating the contesting pressures of taking the time to act in response to her conceptual plan versus the allure to just jump right into the work. Three weeks later, this process has become far more naturalized for Emily as she immediately sets up her cookware, cutting boards, and knives for both she and her partner while also making sure to put away unneeded clutter, such as the knife case. At this point in the semester, I would describe her work as proactive as she anticipates the steps of the meal and gets everything in place before jumping into the active throes of cooking.

In the afternoon lab, Brian seems to have reached a point in the *momo* making process where he has lost control over the order of his station. Yet, rather than press on as he might have in the first few weeks, he knows enough now to clear his station and reset himself for the remainder of the cooking process. So, while not yet quite as foreword thinking as Emily, Brian has come to recognize the value of order as a cooking strategy; even if it is restoring the order versus maintaining it from the outset.

By week six, Emily has become comfortable enough with the routine organization

at the beginning of the lab that she now uses the first few moments to both set-up the station and to talk through the plan for the cooking process with her partner, ensuring that they are both operating on a shared conceptual framework. The importance of this communication is almost underscored by the scene on the other side of the lab bench. Fern is seeking to properly establish an orderly station—two cutting boards with damp paper towels underneath, knives out and safely positioned, produce bowl arranged, etc.—but, has to directly solicit her partner's assistance to correct the way she had haphazardly put the station together. The contrast of these two scenes emphasizes the importance of communication in ensuring a cohesive and organized plan between two partners.

For the final mystery basket assignment, each lab section was split so that only half of the students cooked each week, and thus each partner duo was given free range over the two kitchens on each side of the lab bench. Thus, as the frame transitions, Phoebe can be seen working diligently to set-up both stations as Rachael gathers their ingredients for an ambitious menu consisting of two varieties of *pierogi*, two dipping sauces, and an apple and pear *galette*[17]. On the other side, Emily and Lucas have each gathered ingredients for the recipes they will take charge on—sweet potato tartlets and a vegetarian chili, respectively—and convene to discuss how to best set up the stations and execute the menu. Emily, as always, takes the lead.

In the afternoon final, Brian is seen transitioning his first station—used to prepare corn mush and bacon—into a fry station, and again is seen to recognize the value of reinstating order throughout various stages of the cooking process. As the scene

[17] A *galette*, in its most basic form, is a flaky pastry shaped in a round. The dish has French origins and many possible variations, both sweet and savory. (Montagné 1961:441)

transitions, it becomes clear that Brian has applied the conceptual strategy of sequencing into his *mise en place*, as he pours the fat rendered from the bacon into his fry oil to lend an additional layer of flavor to his finished dish. After getting his fry pans filled with oil and on the heat to come up to temperature, he ensures he has everything laid out for a smooth frying experience: paper-towel lined trays, and a set of tongs. This final scene serves as evidence that for Brian, both the physical and conceptual practice of *mise en place* has become actively incorporated into his kitchen work.

In our post-lab interviews, all of the students discussed the substantial influence of *mise en place* on their overall cooking process. Yet for Fern, the influence of this general conceptual strategy seemed to influence her even outside of the foods lab:

> *Fern*: Yeah, um, room is a mess. I'm messy. So, I'm very surprised that the organization factor, um, because when we first started doing our *mise en place*'s I was kind of just doing it to do it, and then after getting in the habit of doing it, it kind of turned to just automatically thinking about it. And just thinking about it gave so much organization to doing it, without even writing it down.
>
> *Maria*: Right
>
> *Fern*: So, it's kind of just now automatically I have to organize how I'm going to do these steps in my kitchen before I do it, but I don't even think about the fact that it is organization, because it's just like the way I categorize things now.
>
> *Maria*: So, it's just something you do?
>
> *Fern*: Yeah, so that's crazy, I never thought my brain would do that.
>
> *Maria*: Yeah, I guess in that sense, has that organizational style affected other aspects of your life, or no?
>
> *Fern*: No, no…

Maria: (*laughs*) Just curious…

Fern: Yeah, no, well um actually… I do like knowing, um, what time I have to be here, and like how much time is in between that I can do this or that, compared to before I'd have to be somewhere in five minutes and be like, "alright…" and then a minute before I have to be there I'm like, "alright, I'll see ya," but then it's like ten minutes away. So yeah, okay, it *has* gotten into my head now…

Maria: Did you not even realize that?

Fern: No… I didn't..!

The Broader Framework of Food Agency

From my exploration of home cooking, I realized the significance of looking at the broader set of guidelines that the students accessed to inform their work in the kitchen. One of the primary areas for this, again, was sensory engagement, and eventually, *synaesthetic reason*—that is, using one's senses to make decisions to guide the cooking process.

Sensory Engagement and Synaesthetic Reason. The first frame in the video "Progression in Sensory Engagement: Synaesthetic Reason" was shot in the second week of the semester as the students tackled their first recipe: a potato sauté. Having been made aware of the importance of using the senses as a way of learning and knowing with the herbs, salads, and vinaigrettes made the previous week, the students quickly began to engage with their cooking from a sensorial standpoint. Taste seems to have been an accessible first entry point, as the opening frame shows Emily spearing a crisp potato followed by the soft caramelized onions and green peppers onto her fork to assess the outcome of her sauté. On the other side of the bench, Phoebe and Rachael seem

pleasantly surprised by both the taste and smell of their thoughtfully cooked dish. In the interviews, it came out that these sensory cues seemed to validate, even deem worthwhile, the more laborious sequential approach followed in lab over the quick yet haphazard one-pan sauté method commonly used by the students at home. Shifting the camera back to Emily, she appears to have been pleased by that first bite, as she decides to combine the two pans of ingredients to meld the flavors before plating and serving the final dish. Transitioning to sight and aesthetics, Phoebe later begins assembling a vegetable salad to complement the main dish. As she meticulously arranges the carrot sticks and purple basil leaves around the edge of the bowl, it seems that her intent focus on the look of her dish may be coming at the expense of eating and serving it. Comparing the clips of Phoebe and Emily, it would appear that while both students are paying attention to sensory qualities in their dishes, Phoebe has yet to catch up to Emily in adopting a synaesthetic framing—that is, to use one form of sensory input to make inferences towards the final experience of eating the dish.

During the making of *momos* in week five, smell seems to have become part of the open kitchen dialogue as Lucas favorably comments upon the aroma of the ginger as he grates it. In the afternoon it is not this pungent root that spurs the dialogue, but some pan-cooked bacon Brian opted to prepare as a communal garnish for the two dumpling recipes. Impressively, though, it is Eliza that notices the aroma wafting over from the opposite side of the lab bench—perhaps, signaling that the class as a whole has become more attuned to sensory stimuli in the lab environment. The next week, taste has become

an established foundation for Emily and Lucas' kitchen dialogue to make sure the dishes are seasoned and harmonious before being brought out to the table. As Emily stirs the *ratatouille* before tasting it, she removes the *bouquet garni* and comments on how this bundle of herbs and spices is not suitable for eating. This prompts Lucas to chime in, "it would be good, if you could." This is clearly a comment moving towards a deeper sense of synaethesia, as Lucas is connecting the favorable smell of the packet of herbs and spices with a desirable taste experience, even if in practice it would not quite translate.

In the sixth week, Eliza and Fern have begun to communicate better with one another, and it is clear that the sensory inputs have become central to their shared dialogue as partners. Clearly approving of Eliza's vinaigrette, Fern tastes it and exclaims: "pizzazz!" Later, Fern uses her sense of sight to recognize the slight shimmer on the surface of the oil she added to a heated pan—"nice, it's a-ripplin'!"—a visible indication that the fat is ready for sautéing. Moments later, Eliza states, "this is so good!", as she lifts the lid on the neighboring pan and is greeted with the sweet, savory aroma of onions, peppers, and the herbaceous *bouquet garni*. This seems a clear moment of synaesthesia, as Eliza connects the smell of the dish with a prediction as to its overall quality.

Across the bench, the scene of Brian and Claire recalls the relation between the senses and memory explored with the home cooks in an earlier chapter of this thesis. Brian is at a loss for how to articulate the quality of his *ratatouille*, unknowing of whether it came out as it should have, since he claims to have "nothing to compare it to." Claire, having made the dish many times before at home, has accumulated past

experiences so that when she tastes it she can adjust the seasoning to hit that perfect harmony between the sweet caramelized harvest vegetables, a healthy amount of salt, and a touch of citrus to cut through the oil. Having roughly equal experiences with vegetable stews of this sort, Eliza makes sure that both she and Fern have an opportunity to taste and season their rendition before calling it done. In these scenes, the discursive role of sensory memories emerges from the students' decision-making processes about how to adjust their dishes based on past experiences.

Two weeks later, the students switched from cooking mode to baking mode, as they prepared an apple *galette* with local Vermont apples. This was especially exciting for Emily who, in our interviews, talked at length about how she feels far more confident and creative in her baking than in her cooking. Thus, as she knows, one key to baking a good dish is starting with good ingredients, and she is audibly excited about the prospect of using Windfall Orchards apples—brought from the home of their guest instructor, Dr. Amy Trubek—in her *galette*. As the scene transitions, she exclaims, "oh my god, that's good!" noting a perfect marriage between honey and tartness in the bite of apple she has taken. This experience of tasting the apple in its raw state will provide Emily a point of comparison once she tastes the final cooked pastry. Across the bench, Phoebe seems quite impressed by her pie dough, and synaesthetically connects its textural appearance with an expected mouthfeel from the baked pastry: "flaky, yummy!"

For the final mystery basket, in the absence of direct guidance from their instructors, the students were—and, needed to be—more reliant on their senses than ever

before. Emily tastes the sweet potato filling for her tarts before filling them, fully aware that adjustments to the taste and texture will no longer be possible once the filling has set in the oven. In the afternoon lab, Brian makes sure that he and his partner can easily taste throughout their cooking process, too, by bringing over a set of spoons to their lab bench. By the time his final batch of corn mush fritters are fried and cooling, the level of seasoning and adjusting along the way seems to have paid off:

Brian: <takes a bite of a fritter, and laughs to himself>

Serge: Are they good?

Brian: Yeah… they're bomb!

External Factors. While the student cooks were in a controlled environment that permitted them the luxury of focusing almost exclusively on the cooking aspect of meal preparation—with only minimal to modest engagement in planning, serving and eating, and cleaning up, while completely bypassing the shopping requirement—it became clear through observation and conversation that their meal preparation activities were still very much influenced by their environment. In particular, their relationships with their partners and the sense of community promoted amongst the groups seemed to have a significant effect on their experiences and ability to progress, both in the lab and outside of it. As Phoebe described in our final interview:

> I loved how confident everyone felt as we went through lab, like getting there, everyone got in the flow, everyone put their aprons on, there was like a sound in the kitchen that was super satisfying of people just like chattering and dishes going around… I can still, like, hear that, and I think that put us all in the zone kind of, like "we're here to do this, let's just get it done, and then eat like kings." It became, like, this empowering thing.

Thus, while the home cooks in my earlier study primarily worked alone, an important aspect of the students' experience in the foods lab was their propensity to communicate—both partner to partner, and group to group—which created a strong sense of community in both lab sections. The video, "Communication and Community Building", opens on the scene of dumpling making in week five. This was a week where there was a fair amount of difference in the required involvement between the two recipes being made—Nepalese *momos* and Polish *pierogi*—given that only the latter dumpling makers had to prepare and roll out their own scratch dough, while the *momo* makers were provided with store-bought wonton wrappers. As such, *momo*-makers Lucas and Emily finished a little early, and can be heard at the start of the clip offering to do the dishes of their neighbors, Rachael and Phoebe, who they noticed were still working to shape and boil their *pierogi*. Later that day in the afternoon lab, the emergence of a strong partner dynamic is evident between Brian and Claire as they work synchronously to remove the steamer baskets from their pot, and remain in constant communication with one another throughout the lab period.

Transitioning to week six, a conversation between Fern and Eliza reveals the level of peer-to-peer learning that has begun to occur in the foods lab. Contemplating how best to cut her tomato, Fern poses a question to her partner: "hmm… do you remember what was the easier way to cut it? <flips tomato half on cutting board, skin-side up> 'cause this was the harder shell so it was easier this way, yeah?" Despite the fact that she does not get much of a response from Eliza, using her partner as a sounding board seems to help

Fern make a decision about how to proceed. This speaks to the notion of "distributed cognition" and risk negotiation that Sutton (2014) found to be common when Kalymnians cooked with others present in the kitchen. Whether the other party's engagement is active or passive, having another person to deliberate with can help the cook recall how to proceed on their own accord, and perhaps even allows for some reneging of responsibility in the event that a wrong decision is made (Hutchins 1995; Sutton 2014:90).

In week eight, the kitchen dialogue has progressed beyond individual partner groups to the rest of the kitchen as a whole, as the students offer advice to one another to maximize success in the kitchen in a very civic and democratic manner. As Phoebe stirs her reducing cider over the flame she notices that it is bubbling and evaporating a little too rapidly, and cautions Emily who is working across from her: "make sure your cider doesn't burn, mine is getting really hot." Phoebe later is on the reciprocal end of the advice exchange as her partner reminds her to transfer the pastry dough to the baking sheet prior to assembling the *galette*, so as to avoid splitting the dough in a later transfer.

Week eleven, though, was the true test of the strength of community the students had built. Each lab section was responsible for educating one another through oral transmission about how to make tortillas for their last, very commensal, meal before the final. The chosen scene follows this exchange of knowledge as Lucas is taught by his classmate—the one student in the lab who had been shown by the instructor, Cynthia—how to press a tortilla and cook it on the *comal*[18]. She maintains a running dialogue—only interrupted by a few clarifications from Cynthia—while showing her peers how to

[18] A *comal* is a flat-griddle used in México and Central America as a dry-heat cook surface for preparing tortillas, toasting spices, charring vegetables, and searing meat.

roll the *masa* dough into a small, smooth ping-pong sized ball, to evenly double-press it between the two sheets of plastic, and finally to confidently flip the flattened disc onto the hot surface of the *comal*. Lucas' peer instructor excitedly exclaims, "perfect!", as he completes his first tortilla.

The very communal nature of this last regular lab of the semester prompted an intriguing discussion the next day in lecture, as captured in my fieldnotes:

> Today was my last visit to the food and culture lecture for the semester, following up on the tortilla lab. The first question Teresa (the lecture professor) asked the students was: "given the commensal nature of the lab, both in cooking and eating, do you think you all could have executed this lab at the beginning of the semester versus now?" Before she even finished asking the question I saw a lot of heads shaking in dissent. One student described that she felt that this particular lab was contingent upon the sense of community they all had built, and since this was not already in place at the beginning of the semester it would have been a lot harder, if not impossible, to communicate and execute the meal. Another student mentioned that this was also because a lot of trust was needed in order for the lab to be pulled off—they not only had to trust their partners to perform the necessary duties/tasks, but the team across from them, as well, since they also had to work to make a communal batch of tomatillo salsa. Emily agreed that all of this would have been very difficult during the first lab or two, since their actual skills had collectively progressed, and they could hold each other accountable for executing to a common standard. One student did present an alternate view, though. He thought that doing this lab earlier in the semester would have aided in *building* that sense of community and collaboration that others were mentioning. Fern agreed with the others, saying that it was hard enough to learn to communicate with one other cook in the beginning, versus the about twenty people who were involved in the tortilla line in the last lab (instructors included!).
>
> Next, Teresa asked to hear their thoughts on the actual food that was made. The same girl who was first to answer the previous question piped up again, saying that she *loved* the meal. For her, this meal had a real family feel to it, since individual efforts were not lined up and displayed, and instead everybody's dishes were combined to make a cohesive meal. Teresa found this interesting (and I did, too!) because they were asked specifically about the food and yet she came right back to the social aspect

of the meal as being most notable. Rachael noted that when everyone was sitting down to eat, she did not know exactly what she had made when she was eating, since she had taken on a more collective component: salsa. I found what she said next especially interesting. While at the beginning of the semester she was primarily concerned with getting feedback and appraisal on her individual efforts, that was not possible in yesterday's lab, which she said she was okay with at this point as her expectations on the value of appraisal had adjusted to the very different academic experience that goes on in the lab (although, she did ask me to try her salsa before it was put out for the group). This is something she discussed in our first interview as well, noting that as a very hard-working student (who I can imagine gets excellent grades) she was really anxious about getting evaluated on her cooking, an activity she felt she was not at all good at. Another student agreed that not having the food laid out for individual evaluation was really stress-alleviating, as she and her partner feel less experienced than some of the others, and thus feel they usually fall short of the mark. The same male student who thought this lab could have been done earlier in the semester, admitted that he was really happy he was allowed to eat a taco with all the components, without going through the taste profiling exercise for each individual component beforehand—sometimes, the experience of the dish as a whole, and the social setting it is eaten in, ought to take precedence.

In regards to the meal itself, another student noted that she appreciated how simple it was; especially compared to the more elaborate and complexly flavored African dishes made the previous week, such as *bobotie*[19] and curried cabbage. She said this meal seemed to really showcase their progression in technique, and another student added that the method of dry roasting on the *comal* really elevated a set of otherwise fairly ordinary/mundane ingredients—for example, onion, garlic, chilies—to a completely new level. This student had also studied abroad in Oaxaca, Mexico and she said that the smell and energy in the kitchen really took her back—a great empirical testament to the provocative power of food memories! As a final note, one student explained that she really enjoyed this lab, in particular, because it was so tactile, allowing her to get lost in the work. She said that afterwards, she felt tired, yet rewarded, from maintaining such focus for the whole lab period. She said she felt a greater connection to the food while preparing it, and came to appreciate the simple equation underlying the tortillas: corn flour, water, salt, and many busy hands. (Author's Fieldnotes, November 2014)

[19] *Bobotie* is a South African baked casserole prepared with curried minced meat—such as, beef—that typically also contains dried fruits and nuts (Oxford English Dictionary 2015).

It follows from my summary of these final lab-lecture reflections that the altered format of this last lab, and the unique social interactions it spurred, allowed the students to synthesize many of the lessons taught to them over the course of the semester—from technique to sensory engagement. It also put them into a situation where they were forced to negotiate their individual tasks and talents in a truly democratic setting. In this lab, as it is in the preparation of most meals made in home kitchens across America, it was the drive to nourish and satisfy the *group* as opposed to the *individual* that mediated and motivated their efforts. In this way, I think the tortilla lab helped to nudge the students from their staunch focus on individual efforts to the broader social group framing which is part and parcel of most everyday acts of meal preparation, and a critical contextual frame for developing a sense of agency around one's food preparation practices.

Following the communal efforts made in the tortilla lab, the strength of the bonds formed between partners within that broader community was put to a final test in their mystery basket challenge. Transitioning from tortillas to *pierogi*, Phoebe and Rachael are shown in the last portion of the video working in tandem to form, press, and boil their dumplings as fast they can. Lucas and Emily, despite working on separate dishes for most of the final cooking period, reconvene and show appreciation for each other's work by taking a ritualistic 'shot' of salsa before plating and presenting their final dishes. In the afternoon lab, the harmonious working relationship that Claire and Brian have built throughout the semester is nicely encapsulated by their coordination in making the corn mush: Claire pours, Brian whisks. It would seem from these final scenes, that

communication—and, indeed, the developed sense of community—has encouraged the students to progress synchronously, pushing each other to perform at their individual best, while synergistically complementing each other's efforts.

Internal Factors. The communal environment of the foods lab seemed to create an invisible bar of performance to which all of the students aspired in preparing meals both in and outside of lab. Eliza spoke to this point in our final interview, describing these heightened expectations as somewhat of a catch-22:

> When I go to cook a meal, I feel more competent. I feel like, you know, even if I'm making a dish that's harder than what I usually do, I'll do a better job at it, the expectations have risen. But, that's not necessarily a good thing, because then when you mess up its like even worse, because you have these higher expectations that now you have to meet.

Yet, despite the common push towards higher achievement, there was still plenty of variability in regards to how far each student progressed in various areas over the course of the semester; a finding best evidenced by the video clips included in this chapter. In accordance with the results from my home cooking study, though, to understand the progression of each student it is again necessary to independently evaluate their progress in each of the main component areas encapsulated by the broader capacity of food agency. In doing this, I found that the development of certain capacities was more discrepant than others—for example, knife skills versus sautéing. Further, in the areas of widest variability it seemed like the students' initial level of confidence and food involvement was most predictive of where they would end up along a conceived spectrum. However, the least food involved cook at the start of the semester challenged

this trajectory, and her experience is an exemplary model of the role of one's internal state as to overall progression. In our first interview, Rachael and I exchanged the following dialogue when I asked her about whether she was still learning or growing as a cook:

> *Rachael*: Yeah, I'm definitely at a plateau.
>
> *Maria*: A plateau?
>
> *Rachael*: Yeah, I could see it going either way, like I could see myself getting a lot worse, like you know, not trying to stock my fridge with super healthy things, you know, sort of losing track of that, but I could also see it going in the other direction, like once I'm out of school, um, depending on what kind of stuff I'm doing, I'm definitely open for learning, but right now I'm yeah, I'm not going anywhere.

As previously elaborated in the technique section above, at the start of the semester Rachael was fairly certain that this lab was going to have very little impact on her everyday practices around food preparation. Yet, after the transformative moment that came when she was publicly praised for her eggplant sauté, Rachael's attitude began to shift, and her sense of self-efficacy around meal preparation began to build.

> …actually I was thinking about this because I knew you would ask that [re: changes in food practices after taking lab], and I read this thing that said it takes six weeks to create a new neuropathway in our brains. I think it took me about six weeks to change anything in this lab, that like the first six weeks I was like, "yeah, nothing's changing, like at the end of the day I really just want to eat like carrots and hummus all day, and I don't care about cooking." And then, like about six weeks into it, you know, like at the halfway point, I was like, "this could be really fun, I could really maybe start doing this at home," and then I did.

Rachael's degree of transformation was further underscored by the change in her response to the questions I asked about her approach to preparing a meal for other

people. In our first interview, Rachael quickly exclaimed "I would never put myself in that situation!," just at the hypothetical prospect of preparing a meal for others. Ten weeks later, in our final interview, her response had a very different tone: "it's funny, 'cause when I learned that I would be getting the gift certificate to City Market, my first instinct was, 'I'm gonna make a really special, intricate, dinner for my friends!'"

Even for the students who were comfortable cooking prior to taking the lab, the experience seemed to open them up to the possibility of continued growth and progress in their meal preparation practices. For example, upon asking Brian in our final interview if he felt he still had more to learn as a cook, he responded: "Yeah, definitely. I feel like this probably opened my eyes to all the things I can learn, you know? Like a little glimpse or taste of it, and now it's like, 'oh, wow, cooking is way more intense than you would initially think, there's a lot to be learned.'" For other students, the lab encouraged them to develop their strengths and improve their weaknesses in the kitchen. For Emily, one of her biggest takeaways from the semester was the value in learning to work with others:

> I honestly think learning how to work with other people in a kitchen and relegating, or relinquishing, some control, I think has been a really… I mean, like, I think it probably shows that I like to have control in the things that I do, and it's hard for me to say, "yeah, I trust you to do this," or "I'm gonna leave you to do it, and I'm gonna come back and it's gonna be fine." Because a lot of times, I'm like, "don't touch it! If I don't do it, it's not gonna be right," which 98% of the time is not true at all. So, um, and I found that to be… in the cooking I've done with my friends, to be really important, of having that community skill. I think it's just as important as technique, and confidence, and all that, because you're not… unless you're cooking for people, you're cooking with people most of the time. So, being able to trust that people will do their own thing and it will still be fine has been a good lesson I think from this lab. People have

> different processes, people have different approaches, people have different tastes, and people have different, I guess, creativities. Like, I really admire that [Lucas] can be like, "I'll just do this, and it'll be cool." And I'm like, "I have no idea, but hey, I wouldn't have thought of it, but try it, we'll see." And it working out has been cool, because it wouldn't occur to me about a lot of things that he pulls off in lab.

Emily's realization here recalls Bandura's (2000) discussion of the role of collective efficacy in his theory of human agency. He argues that belief in the power of one's own efforts is not inherently individualistic, and when applied towards societal problems can bring great benefit. Humans are social beings and thus most plans and pursuits will involve collective effort—thus, there is no *absolute* agency in an isolated sense (Bandura 2006:164). Emily's commentary helps to situate this idea within a culinary context. Given the social underpinnings of meal preparation, the truly agentic cook must have both self- and collective-efficacy—that is, belief in his/her own abilities and the organizational and communicative skills necessary to cook for and with others.

In sum, I found Phoebe's discussion in our final interview to be the best testament as to how a shift in internal capacities surrounding meal preparation can alter the way an individual perceives and approaches the pull of broader structural barriers:

> *Phoebe*: And um, now that I think about it, like the adaptation concept is the most valuable part of the lab to me, because it's not… Like, I appreciated learning it in the most pure form of like a traditional recipe. That makes me feel like I know how to use it, I know how to cook in different ways, but then feeling okay about then taking all of those "cooking ingredients" like I said, and adapting it and making your own recipe version based on your budget, based on your time, is the most rewarding concept, because it's like a familiarity to everything you've learned. Like, you need all that synthesis to get to that point.
>
> *Maria*: So, would you say that things you don't know… could be skills, ingredients, techniques… is your attitude towards them different? Because

it sounds like you view them almost as challenges versus barriers.

> *Phoebe*: Yeah, yeah, that's exactly what I mean. Um, so definitely I think a new concept is framed as a challenge, when it previously would be something of a wall where I don't know how to do it, I shouldn't, I don't want to mess it up, like, I don't want to waste this… and that's a combination of now trying different things, but also knowing that I did try all those things and they did work. Like I have that framework of I tried it, it worked, let's repeat the process with some other context, I guess. So yeah, I don't know what I would call a weakness, I know I have them, but like… I don't really care anymore, to define them, you know what I mean?

While the barriers of time and finance still remain for Phoebe, she has gained what she describes as "cooking ingredients"—or, skills and techniques that lend themselves to a variety of applications—that not only allow her to prepare more from less, but also have altered her attitude towards cooking so that what might once have before been a point of frustration has become a new challenge that she feels empowered to take on.

Future Directions: From Foods Lab to Food System

The body of this chapter has captured the many ways that the students' progression over the course of the semester has led to changes in their cooking practices, both in and outside of the lab. Importantly, though, these changes went beyond cooking despite this having been the primary area of meal preparation they were able to engage with in the course. For example, Eliza claimed that the very experience of being in the lab, and the general sense of inspiration it bestowed, led her to shop for new vegetables that she had never cooked before—such as, brussels sprouts. In a similar vein, Rachael admitted to buying about five eggplants over the course of the semester, since she now finds them more approachable: "I know things about an eggplant [now], so when I walk

by it, it's not like, 'I don't know how to deal with you.' It's like, 'I could deal with you if I wanted to.'" Lucas even stated that the biggest change in his meal preparation habits at home is that he has gotten much stricter with his roommates about maintaining a clean and orderly kitchen space, allowing him to cook more involved meals than he otherwise would have. These and countless other stories told to me over the course of the semester—both in and outside of our recorded interviews—suggest that the students' progress was not isolated to the three hours they spent in the foods lab each week; it carried over into their everyday lives and food practices. This, of course, is the ultimate goal of a course like this.

Throughout this study, it has been telling to compare the video footage of the students' culinary progress and excerpts from their interview discussions against the components of food agency that emerged from the first study of this thesis. Such comparison reveals that the students not only learned about the principles of cooking, but also were developing a greater sense of food agency as a result of their experiences in the lab. From all of this, I argue that this particular pedagogical model—which, focuses on the basic components of skill, technique, and strategy within the parameters of organizational and sensory guidelines—is a unique and efficacious model for teaching others how to cook, and instills them with a toolkit that has the potential to lead to a greater sense of food agency.

However, like any good ethnographic exploration this work has revealed even more questions than it has answered. For one, will these changes last? Is the foundation

of cooking skill, technique, and strategy enough to encourage the students to continue to improve and progress in these and other aspects of meal preparation? How might their lessons translate into everyday practices and habits? While all of the students expressed through the final interviews that they felt they had more to learn about cooking, and aspired towards continued improvement, there is no way to know for sure how their trajectories will take shape in the months and years to come. Important next steps for this work, then, will be to take the essential elements of this Deweyan cooking pedagogy, and distill them into a portable curriculum that can be applied and tested in courses offered in more diverse environments, and to more diverse groups of participants. This will help to address residual questions as to the reach of this educational model beyond an audience of white, college-educated, millenials. Another next step, of perhaps even greater importance, will be to follow-up with students who are taught under this pedagogy to better understand if and how this model leads to continued learning about cooking, and further development of their capacities for food agency.

CHAPTER SEVEN

CONCLUSION

"Developing skill in the kitchen is a project without an end point, just as developing ethnographic understanding is a project that can yield only temporary satisfactions, ongoing questions, and new challenges."
(Sutton 2014:23)

This thesis combined two ethnographic studies to explore and define the complex capacity of food agency from within both everyday and educational contexts. The first study looked closely at home cooking practices to define and illustrate each of the components—from skills, techniques, and strategies; to structural and sensory guidelines; to confidence and self-efficacy—that collectively compose an individual's capacity for food agency. While this first study provided a detailed picture of what it looks like to *enact* food agency, the second study of the thesis explored how food agency *develops*. Specifically, it followed a cohort of eight undergraduate students as they learned how to cook, and developed various food agency capacities, over the duration of a semester-long food and culture course. This final chapter will first summarize the main analytical and methodological contributions of this research before outlining possible applications and a path forward.

Summary of Findings

Analytical Contributions of the Thesis

From the first study of home cooks, I was able to identify the key components of cooking practice—and thus, of food agency—by looking across many areas of the home cooks' meal preparation practices. These findings were summarized in the Food Agency

Concept Map (see: Figure 2), which illustrated how the individual areas of food agency span from mechanical abilities out to cognitive processes, and from individual factors out to societal forces. Thus, the concept map helped to visually represent the food systems scope of this research by situating the individual home cook within the broader context of society. This general framework was informed and supported by literature on cooking and culture, structure and agency, and food choice and behavior.

The study then worked through each area of food agency, making important arguments along the way. For one, cooking is a *skilled* and *active* practice that is both learned and improved through sensory engagement and attentive repetition (Ingold 2000). Following from this finding, I argued that the role of the senses—and particularly, *synaesthetic reason*—is a critical means by which home cooks make decisions throughout their cooking process in order to thread together the execution of various skills and techniques to create composed dishes. Finally, the overarching result of the study of home cooks was that food agency is best conceived along a dynamic and fluid spectrum. Moreover, to appreciate the complexity and nuance of each home cook's capacity for food agency, the individual components—for example, skills, knowledge, etc.—must be independently assessed. Thus, it was shown that food agency is not a static entity that an individual simply possesses, but rather a responsive capacity that individuals develop to varying forms and extents.

This study also considered the relationship between broader societal structures and an individual's ability to engage with meal preparation on a daily basis. Although the

participants in this study did vary to some degree in terms of age, income, and living situation, the difference in these demographics was not nearly as stark as the differences seen along the lines of cooking experience. Overall, I found that the more experienced home cooks—who were well-versed in all of the components of food agency—were better able to *push* back on typical structural constraints (e.g., time, budget, access to ingredients) to prepare meals with visible fluidity and an overall air of ease. This is a preliminary finding that ought to be further tested amongst participants with a greater spread of demographic diversity before broad generalizations are drawn. However, the implication stands that teaching cooking using an approach that also promotes a sense of agency around meal preparation could allow individuals to improve their practices even in the face of external challenges and barriers.

In the second study, I gained greater insight into the transfer of cooking knowledge in educational settings and came to appreciate the variation in learning outcomes amongst students who began the class with different amounts of experience. The study revealed the many moving parts and inherent variables that are involved in—and complicate—the transfer of knowledge from an instructor to a class; all of the students progressed, yet each to a different extent. However, since this study was conducted as an exploration, there was not a set mechanism in place to assess the students' capacities for food agency at the beginning and end of the course. Despite this limitation, my research has pinpointed pedagogical strategies that—at least, qualitatively—were found to increase the students' sense of agency around their food

practices. In sum, I argue that the most effective model for instructional cooking interventions is one that promotes basic cooking principles—for example, skills, techniques, and strategies—within an environment that encourages hands-on practice, attentive sensory engagement, and the development of self- and collective-efficacy around meal preparation.

As a whole, this research has provided a detailed model to make sense of the complexities of cooking and meal preparation practices, and the many capacities that are involved. This contribution should prove informative for future scholars and practitioners pursuing further questions about cooking, food choice, and dietary behaviors. Additionally, this work has demonstrated the relevance of cooking as a food systems topic through relating individual actions in a model that accounts for broader societal influences. Any future attempts to explore the reach and relevance of food agency on a broader scale, ought to pursue questions that better interrogate at what point—and, to what degree—'food agents' can structurally alter their food environments, and the food system at large, through their practices. Moreover, the food systems orientation of this research contributes to an evolving conversation about what it actually means to cook or prepare a meal in contemporary society (Short 2006; Wolfson 2015). Framing meal preparation in terms of *structure* and *agency* suggests that one angle to this question is to consider an individual's degree of active involvement in the process of transforming the food they eat into a palatable state (as opposed to becoming reliant on various sectors of the food system and food service industry to take on this work for them).

Methodological Contributions of the Thesis

In addition to the analytical findings summarized above, this thesis has offered a number of methodological contributions of potential use to researchers looking at cooking practice and other areas of meal preparation within a societal context. Overall, this project has demonstrated the value of sequencing qualitative research in a transdisciplinary framework. Although I used a very fine-grained ethnographic approach—one that allowed me to make sense of the complexities of cooking, and nuances of food agency—my findings have been synthesized in effort to guide future research efforts, both qualitative and quantitative.

Qualitatively, the capacities and overall framework neatly summarized in the Food Agency Concept Map (see: Figure 2) offers future researchers a detailed framework to build upon. It provides a means to evaluate how various meal preparation abilities are enacted and developed, without needing to replicate the exploration to identify the many abilities and capacity areas that are involved. Thus, the summarized findings of this thesis provide a foundation for future research efforts to be pursued with a qualitative approach that is more focused, streamlined, efficient, as well as comparable across multiple research sites. In terms of quantitative contributions, this research has partially informed the content and structure of a Food Agency Scale (FAS) that is being developed to quantitatively assess the capacities theorized and qualitatively-explored through this thesis. Specifically, the notion of a spectrum and overall dynamic nature of food agency that emerged from the thesis' first study of home cooks supported the graduated Likert-

design of the scale so as to capture the nuances and variability of individuals' proficiencies. Additionally, the literature and social theory that has framed this work, along with the empirical evidence provided by the home cooking videotapes, has helped to inform the various content areas of the FAS: from individual meal preparation skills, to self-efficacy around food practice, to engagement with societal structures.

Pairing together both studies of this thesis, there are implications regarding the relevance of food agency to matters of cooking practice and education. This research has provided a detailed framework from which to contemplate the form and function of food agency in everyday and educational settings, and in so doing has opened the door to many future research applications. One path, in particular, that deserves consideration is the formation of public health interventions.

Future Directions for Food Agency: Developing a Public Health Intervention

Within a public health framework, this thesis project can be understood as a "formative" research effort offering detailed findings to guide the development of actual interventions intended to promote health outcomes and lasting dietary behavior changes through cooking (Edberg 2013:137). As such, I conclude this thesis by first summarizing the gaps left unaddressed by the many programs that have already attempted interventions. I will then highlight key lessons identified through this thesis work that ought to be considered in developing and evaluating more rigorous models for cooking-based public health interventions: from design, to delivery, to assessment.

Summarizing Existing Gaps

In the literature review (see: Chapter 2), I looked at a body of scholarship that suggests there is precedent for promoting cooking as part of a healthy lifestyle. As a result of such studies, a wide variety of cooking interventions have been developed in attempt to teach cooking fundamentals to both youth and adults. However, until recently, there has been a notable lack of effort to evaluate the short- and long-term impacts of these programs in terms of behavioral, dietary, and/or health outcomes. Recognizing this shortcoming, Reicks et al. (2014) conducted the first methodical review of cooking and home meal preparation interventions that were specifically designed to promote various health and dietary outcomes amongst adult participants. Following a guided keyword search conducted across three top scientific research databases, the authors of the article pared an initial pool of 319 relevant research articles down into a group of 28 studies that met the authors' specific criteria for inclusion. Upon reviewing the abstracts of each of the initial articles in the pool, exclusions were made if the studies lacked an appropriate intervention design, focused on children instead of adults, or did not target cooking or food preparation as the primary behavior under evaluation (Reicks et al. 2014:260).

The primary purpose of the researchers' review was to collect and categorize the many cooking-based interventions that have been established in effort to promote various health outcomes, and to critically analyze them in terms of reported impacts and implications. Even within the reduced pool that met the authors' inclusion criteria, there was a tremendous amount of variance in terms of design and evaluation, making it

difficult to draw any generalizable conclusions across all the programs. The authors concluded, instead, that "[t]o enhance the impact of these types of popular programs, additional research is needed regarding the needs of non-cooking individuals and the most effective methods of delivering and evaluating cooking interventions (Reicks et al. 2014:.274)." The findings of my thesis underscore this call-to-action, and highlight a number of specific guiding lessons that can help lead to the development of more rigorous, relevant, and replicable efforts in this increasingly popular area of community nutrition and public health. To introduce these lessons, I will walk through some of the current best practices used by existing cooking-based educational programs, and offer additional considerations that ought to be made in designing, delivering, and assessing future models.

Lessons for Design

The most well-established cooking education programs base their curricula on proven behavioral theories—such as, Bandura's (1989; 2001; 2004) Social Cognitive Theory (SCT)—to promote lasting changes in participants' cooking practices and consumption habits (see: Auld and Fulton 1995; Levy and Auld 2004; Liquori et al. 1998). As Liquori et al. (1998:303) explain of the Cookshop Program[20]:

> The most widely used theory for the design of school-based nutrition education interventions during the past [two] decades has been Social Cognitive Theory (SCT), which posits that personal influences on behavior, environmental influences, and the behavior itself all reciprocally interact and should all be addressed in interventions.

[20] The Cookshop program was developed for K-6 students in New York City's Central Harlem community, and is backed by a nonprofit agency: The Community Food Resource Center (Liquori et al. 1998:303).

The key elements of SCT recognized to be effective in nutrition education settings include (Lytle and Achterberg 1995; Liquori et al. 1998): repetitive exposure to the desired dietary change (e.g., eating and preparing vegetables, developing a preference for whole grains, etc.), some form of active engagement (e.g., hands-on cooking lessons, tasting sessions, etc.), integration with familiar settings (e.g., a school classroom), and engagement with the broader environment and community in which the intervention takes place (e.g., working with school lunch staff to offer the same healthy options in the lunch room to promote consistency and continuity, and communicating with parents and caregivers).

However, despite the thoughtful theoretical design of such programs, most have been found to yield only modest improvements when looking at changes in participants' healthy food preferences, nutritional knowledge, cooking self-efficacy, and intentions related to healthy food consumption (Liquori et al. 1998; Auld and Fulton 1995). Following from the results of my thesis research, I propose the incorporation of the following pedagogical components in future interventions, which have been qualitatively shown to improve college students' cooking practices and capacities for food agency: 1) hands-on lessons focused on cooking skill, technique, and strategy, 2) an educational environment that promotes active involvement and sensory engagement from all participants, 3) opportunities for building self- and collective-efficacy around meal preparation by incorporating forums for personal reflection and collaborative group activities. This model is compatible with the SCT approach discussed by Liquori et al.

(1998:303), and focuses explicit attention on the actual curriculum used to promote cooking practice which often goes unreported in articles and reports. Also, in line with both the theoretical findings from my literature review and empirical results of my original qualitative research, this approach also directly promotes bodily—specifically, sensory—engagement in addition to cognitive involvement amongst participants. As demonstrated through my analysis of home cooking practices, sensory engagement is an essential element of active cooking practice and is also integral to the process of *learning* to cook.

Lessons for Delivery

With a curriculum in place based on a foundation of social theory and qualitative evidence, the next key decision in developing an effective intervention is choosing a target population for delivery. The selection of student cooks as participants in this thesis research was based on literature emphasizing the receptiveness of this demographic to new culinary knowledge, along with their ability to further apply lessons in their home practices (Levy and Auld 2004:200; Short 2006:117). Yet, this population is not without its limitations, the largest of which is self-selection bias. That is, given their interest in participating—whether through extracurricular or curricular involvement—the students are demonstrating some interest and propensity towards making the changes that are being promoted. As such, the results of programs that target the college demographic are likely non-generalizable to other young adults in a similar age range. This same issue arises with adult courses offered in community settings, as they typically attract

participants with preexisting motivations for changing their cooking practices and behaviors.

Taking all of this into consideration, one population that could be targeted to further test the reach and efficacy of this proposed pedagogical model for cooking interventions would be high school students. Like the K-6 students who participate in Cookshop (Liquori et al. 1998), the high school population is a captive audience. Thus, the participation of these students would be primarily determined by their required participation in the public school system, rather than an immediate desire to learn to cook. To encourage continuity of practice between school and home, such programs could specifically target high school juniors and seniors who might feasibly begin cooking meals for themselves as they acquire more responsibilities and freedoms in anticipation of moving out of their childhood homes. However, while this demographic may be a strategic target in terms of challenging and testing the efficacy of the proposed intervention pedagogy, the anticipated benefits make it such that similar models ought to be designed for other populations who could benefit.

Lessons for Assessment

The last critical stage in developing an intervention is determining the assessment that will be used to measure the project's outcomes. Both Liquori et al.'s (1998) evaluation of the Cookshop program, and Levy and Auld's (2004) evaluation of their cooking lessons for college students relied primarily on self-designed survey instruments as evidence of learning and behavior outcomes amongst participants. This approach has

considerable limitations. For one, it relies on measures of self-report, which are an imperfect measure of behavior change. More limiting, though, is that using self-tailored instruments for each separate cooking intervention prevents results from being meaningfully compared against each other to determine best practices and allow broader conclusions to be drawn. Reicks et al. (2014) also identified this last point as a significant barrier in their methodical review of cooking interventions. These researchers noted that as more programs are developed to appease growing public interest, it will be increasingly important to develop validated evaluation tools so that individual and collective program impacts can be more rigorously reviewed.

The design of this thesis has challenged the siloed evaluation model—thus, appeasing Reicks et al.'s informed recommendation—in that it has used formative qualitative inquiry to advise the concurrent development of a reliable and validated quantitative assessment tool: the Food Agency Scale (FAS). The FAS, following its final validation, will be capable of measuring the desired outcome of both newly-proposed and existing cooking interventions. The design and format of the FAS as a graduated Likert-measure with sub-scales related to individual meal preparation skills, self-efficacy around food practice, and engagement with societal structures captures the nuances and complexities of food agency that have been revealed through this thesis. Taken at the beginning and end of a cross-sectional intervention—or, after longer time increments in a longitudinal study design—it will provide a basis for measuring and tracking changes in participants' food agency capacities in both the short- and long-term. This measurement

tool is also not so specific as to render it unusable in evaluating the outcome of other programs that intend to promote changes in meal preparation engagements or other food behaviors. In light of this, another considerable advantage of the FAS as an assessment tool is that it can be used as a standardized basis to track the outcome of a variety of program designs, both horizontally and longitudinally. Additionally, it could be paired with other evaluation tools that account for health measures to allow stronger conclusions to be drawn regarding the relationship between cooking behaviors and individual health outcomes.

Conclusion

In prefacing his ethnography of cooking practices on the Greek island of Kalymnos David Sutton writes, "…developing ethnographic understanding is a project that can yield only temporary satisfactions, ongoing questions, and new challenges (2014:23)." While my own involvement with this ethnographic thesis project has indeed yielded many questions, and a number of challenges, I am convinced that it has the potential for longer lasting satisfaction. That is to say, if the potential research and public health applications that I have laid out for this work are further pursued and realized—or, even challenged and rejected—I would gain lasting satisfaction knowing that I made a thoughtful contribution to this important area of scholarship and practice. In closing, I welcome anyone with the means and motivation to pick this research up where I am leaving it off.

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Appendix A: Home Cook Recruitment Letter

Front Porch Forum, ONE East
Issue No. 2566
August 11, 2014

Hello! My name is Maria Carabello, and I am a Master's student at the University of Vermont studying food systems. I am writing to invite you to participate in a research study exploring the everyday practices of home cooks. Specifically, I am interested in meeting with home cooks who identify with one of the following statements:

- ☐ "I consider myself an inexperienced home cook, I can become overwhelmed by the prospect of cooking for others, and I lack confidence in my cooking skills and/or food preparation strategies."

- ☐ "I consider myself a very experienced home cook, I am confident cooking for others, and I have either received formal culinary training and/or have more than one-year of experience working in a professional restaurant, or institutional/commissary kitchen."

It should be emphasized that, as a researcher, I am not concerned with evaluating who cooks "best" or "worst." The practices of both inexperienced and experienced home cooks are of equally high value to the success of this project. So, for example, if your idea of making a pizza is running to the store after work, buying the frozen variety, and baking it off in your oven while completing household chores – I am interested in talking with you! Alternatively, if your idea of making pizza involves growing and harvesting your own tomatoes, preparing and canning a sauce, making pizza dough and mozzarella in your own kitchen, and baking the pie off on a ceramic pizza stone – I am interested in talking with you, too! The purpose of this research is to gain insight into the broad and diverse capacities a home cook must possess in order to successfully and confidently prepare a meal for themselves and/or others; which, in this study, are collectively regarded as expressions of a cook's "food agency."

If you elect to participate in this study, you will be asked to do the following:

- Complete a basic demographic questionnaire
- Cook a typical dinnertime meal in your home, which will be videotaped (up to 90 min.)
- Participate in one audio-recorded interview as follow-up to the cooking event (45-60 min)

All of these activities can be performed in one meeting or at separate times. For example, the interview could be conducted during/after eating the dinner meal, or during a separately scheduled meeting, depending on your schedule and preference.

As compensation for completing all of the research activities, you would receive a $50.00 gift card to City Market/Onion River Co-op in downtown Burlington, VT.

If you are interested in participating, or have additional questions, please contact me so that we can further discuss the opportunity, and/or schedule a meeting time (mcarabel@uvm.edu – [RESEARCHER'S PERSONAL PHONE NUMBER PROVIDED]. In your correspondence please indicate which home cook category you identify with (inexperienced or experienced). I look forward to hearing from you!

Best,
Maria

Appendix B: Inexperienced Home Cook Interview Guide

Consent: Before we get started, are you comfortable with me recording our conversation and taking notes while we talk?

Overview: As an overview for where this interview is going, I'd like to discuss your general approach to home meal preparation, and the process you typically follow to move from thinking about cooking, to actually preparing a meal, to finally sitting down to eat it. But, first let's talk a little bit about the meal you just made.

(5 min) **Opening Questions:** *(to be modified depending upon what is discussed during videotaping)*

1. Could you tell me a little about this dish?
    i. Overall, what was your main motivation to make this dish for the videotaping session?
        - To what extent, if at all, did knowing you were going to be videotaped influence what you decided to make?
        - Is this a typical meal you'd make on a [day of week] evening?

(15 min) **Transition Questions:**

2. Now, thinking back over the course of your life, what were some of your earliest exposures to cooking?
    i. Do you have any strong memories associated with this?
    ii. Who made most of the meals in your household?
    iii. Were you ever involved in meal preparation as a child?
3. When did you actually start cooking by yourself?
    i. What prompted this?
        - Necessity? Interest? Curiosity? Independence?
    ii. Have any of the earlier exposures that you mentioned influenced your own relationship with cooking at all? In what ways?

(20 min) **Key Questions:**

4. Now, let's talk about the key steps involved in your general *process* to prepare meals at home. We can use the meal you just made as an example. Could you walk me through the various stages that were involved in making this meal (from the initial idea, to getting the ingredients, to the preparation I just witnessed)?
    i. *If needed*, prompt for: getting ingredients, planning (*logistical, spatial, temporal*), cooking, eating, clean-up – don't offer these outright, though.
        - PROMPTING NOTE: encourage participant to discuss *each step* in as much detail as possible; start getting at routines and value considerations.

ii. Do you have any strategies for any of these steps, or the meal preparation process in general, that you think are helpful?
iii. Do you ever run into any barriers at any of these individual stages, or when preparing meals in general?
- How do you deal with those?

iv. Do you have any particular commitments or priorities that guide your process?
- For example in choosing ingredients, or deciding which preparation methods to use, what sorts of things do you consider?

(15 min) **Closing Questions:**

5. This final set of questions will focus more broadly on your overall relationship with home cooking. So first, what would you say are some of your greatest strengths and weaknesses when it comes to cooking?
   i. How did you develop those strengths?
   ii. Why do you think [x] is a weakness for you?
6. Would you say you are still learning, or growing, as a home cook? How, or in what ways?
   i. What sorts of things would you like to become more proficient at?
   ii. Do you have any particular plans to do this?
7. When you are cooking a meal at home, how do you generally feel?
   i. Moments of triumph?
   ii. Moments of defeat?
8. In summary, how would you describe your overall relationship with home cooking?

***** That's the end of my questions. Do you have anything else you would like to share that we haven't covered, or anything you'd like to ask me?

Appendix C: Experienced Home Cook Interview Guide

Consent: Before we get started, are you comfortable with me recording our conversation and taking notes while we talk?

Overview: As an overview for where this interview is going, I'd like to discuss your general approach to home meal preparation, and the process you typically follow to move from thinking about cooking, to actually preparing a meal, to finally sitting down to eat it. But, first let's talk a little bit about the meal you just made.

(5 min) **Opening Questions:** *(to be modified depending upon what is discussed during videotaping)*

1. Could you tell me a little about this dish?
    i. Overall, what was your main motivation to make this dish for the videotaping session?
        - To what extent, if at all, did knowing you were going to be videotaped influence what you decided to make?

(15 min) **Transition Questions:**

2. Now, thinking back over the course of your life, when did you start getting interested in cooking?
    i. How did you first learn how to cook?
        - Do you have any strong memories of this?
3. When did you decide you wanted to start cooking professionally?
    i. What prompted that decision?
        - Is it something you always envisioned yourself doing, or something that emerged as an option later on?
    ii. Has your formal culinary education (or professional experience) influenced your relationship with home cooking at all? In what ways?
    iii. What about teaching others to cook, has this had an impact on your cooking?

(20 min) **Key Questions:**

4. Now, let's talk about the key steps involved in your general *process* to prepare meals at home. We can use the meal you just made as an example. Could you walk me through the various stages that were involved in making this meal (from the initial idea, to getting the ingredients, to the preparation I just witnessed)?
    i. *If needed*, prompt for: getting ingredients, planning (*logistical, spatial, temporal*), cooking, eating, clean-up – don't offer these outright, though.
        - PROMPTING NOTE: encourage participant to discuss *each step* in as much detail as possible; start getting at routines and value considerations.

ii. Do you have any strategies for any of these steps, or the meal preparation process in general, that you think are helpful?
iii. Do you ever run into any barriers at any of these individual stages, or when preparing meals in general?
- How do you deal with those?

iv. Do you have any particular commitments or priorities that guide your process?
- For example in choosing ingredients, or deciding which preparation methods to use, what sorts of things do you consider?

(15 min) **Closing Questions:**

5. This final set of questions will focus more broadly on your overall relationship with home cooking. So first, how would you describe your style as a cook?
   i. If prompts are needed, ask to compare to any influential cuisine(s) or well-known chefs.
   ii. What factors would you say have influenced your style over the years?
   - Personal/cultural values? Location? Food environment/ingredient availability?
6. What would you say are some of the greatest similarities and differences between cooking at home and cooking in a professional kitchen?
   i. Could you compare and contrast the experience of each of those settings for me?
7. When you are cooking at home, how do you generally feel?
   i. Moments of triumph?
   ii. Moments of defeat?
8. In summary, how would you describe your overall relationship with home cooking?

***** That's the end of my questions. Do you have anything else you would like to share that we haven't covered, or anything you'd like to ask me?

Appendix D: Home Cook Demographic Questionnaire

Gender:

Year Born:

Occupation:

Town/City of Residence:

Number of Adults Living in Household:

Number of Children Living in Household:

Ethnicity: *(may check more than one)*

- ☐ White/Caucasian
- ☐ Hispanic or Latino/a
- ☐ Black or African American
- ☐ Native American or American Indian
- ☐ Asian/Pacific Islander
- ☐ Other _____

Highest Level of Education: *(please check one)*

- ☐ Some high school, no diploma
- ☐ High school graduate, diploma or the equivalent (for example: GED)
- ☐ Some college credit, no degree
- ☐ Trade/technical/vocational training
- ☐ Associate degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional degree
- ☐ Doctorate degree

If applicable, **name of *culinary school* attended and degree earned:**

If applicable, **total number of years worked in a professional kitchen:**

Approximate Yearly Household Income: *(please circle one)*

$0-$25,000 $25,000-$50,000 $50,000-$75,000 $75,000+

During a typical week, how many dinner meals do *you* prepare at home?

- ☐ 0
- ☐ 1-2
- ☐ 3–4
- ☐ 5–7
- ☐ Don't know

During a typical week, how many nights per week do you have dinner purchased from a restaurant (either eat-in or take-out)?

- ☐ 0
- ☐ 1-2
- ☐ 3–4
- ☐ 5–7
- ☐ Don't know

Which of the following terms best describes your confidence in your cooking ability?

(check only one)

- ☐ Very confident
- ☐ Confident
- ☐ Neither confident nor unconfident
- ☐ Unconfident
- ☐ Very unconfident
- ☐ Don't know

Thank you, for participating!

Appendix E

Demographics of Home Cook Participants (*n=27*)

Participant [a]	Date of Videotaping	Visiting Researcher[b]	Environment	Position Along 'Food Agency Spectrum'[c]	Age	Gender	Ethnicity	Household Income	Adults in Household	Children in Household	No. of Home Prepared Dinners/Wk	Self-described Cooking Ability, or Confidence in Cooking Ability
"Trisha"	2007	AT	Suburban	Middle	30's	Female	Caucasian (Bosnian)	$50,000 – 74,999	---	---	6	Advanced
"Laura"	March 2007	AT	Suburban	Middle	40's	Female	Caucasian	$15,000 – 24,999	2	2	7	Intermediate
"Ian"	April 2007	AT	Suburban	Middle	30's	Male	Caucasian	$50,000 – 74,999	2	4	3-4	Intermediate
"Hilary"	September 2007	AN	Urban	Middle	40's	Female	Caucasian	$15,000 – 24,999	1	1	2-4	Intermediate
"Carol"	September 2007	AN	Urban	Middle	50's	Female	Caucasian	$75,000 +	1	0	2-4	Intermediate
"Art"	October 2007	AT	Suburban	Middle	70's	Male	Caucasian	---	1	0	5	Intermediate
"Alice"	October 2007	AN	Urban	Middle	50's	Female	Caucasian	$75,000 +	1	0	5-7	Intermediate
"George"	December 2007	AN	Urban	Middle	60's	Male	Caucasian	---	2	1	5-7	Intermediate
"Josh"	May / October 2008	AE	Urban	Middle	20's	Male	Caucasian (Italian)	$15,000 – 24,999	---	0	2-4	Intermediate
"Heather"	June 2008	AE	Suburban	Middle	30's	Female	Caucasian	$50,000 – 74,999	2	0	5-7	Intermediate

Participant[a]	Date of Videotaping	Visiting Researcher[b]	Environment	Position Along 'Food Agency Spectrum'[c]	Age	Gender	Ethnicity	Household Income	Adults in Household	Children in Household	No. of Home Prepared Dinners/Wk	Self-described Cooking Ability, or Confidence in Cooking Ability
"Ana"	June / July 2008	AE	Urban	Middle	30's	Female	Russian	$25,000 – 49,999	1	0	2-4	Basic
"Ashley"	July 2008	AE	Urban	Middle	30's	Female	Caucasian	$50,000 – 74,999	2	0	2-4	Intermediate
"Evan"	July / August 2008	AE	Suburban	Middle	60's	Male	Caucasian	$75,000 +	2	0	5-7	Intermediate
"Deborah"	August 2008	AE	Suburban	Middle	40's	Female	Caucasian (Scottish)	$75,000 +	2	2	5-7	Intermediate
"Martha"	August 2008	AE	Suburban	Middle	70's	Female	Caucasian	---	2	0	5-7	Intermediate
"Rosi"	October 2008	AN	Urban	Middle	---	Female	African American (Trinidadian)	$75,000 +	2	0	2-4	Basic
"Ross"	July 2009	SH	Rural	High	40's	Male	Caucasian	$50,000 – 74,999	2	2	5-7	Advanced
"Karen"	July 2009	SH	Rural	Middle	50's	Female	Caucasian (Scandinavian)	$15,000 – 24,999	2	0	5-7	Intermediate
"Linda"	July 2009	SH	Rural	Middle	50's	Female	Caucasian	$50,000 – 74,999	2	1	5-7	Intermediate
"Carolyn"	July 2009	SH	Rural	Middle	60's	Female	Caucasian	$15,000 – 24,999	2	1	2-4	Intermediate
"Dana"	August 2009	SH	Rural	Middle	60's	Female	Caucasian	$75,000 +	1	1	2-4	Intermediate
"Lisa"	August 2009	SH	Rural	Middle	50's	Female	Caucasian	$25,000 – 49,999	1	1	5-7	Intermediate

Participants[a]	Date of Videotaping	Visiting Researcher[b]	Environment	Position Along 'Food Agency Spectrum'[c]	Age	Gender	Ethnicity	Household Income	Adults in Household	Children in Household	No. of Home Prepared Dinners/Wk	Self-described Cooking Ability, or Confidence in Cooking Ability
"Julia"	August 2014	MC	Urban	High	30's	Female	Caucasian	$75,000 +	2	0	2-3	Confident
"Sofia"	August 2014	MC	Urban	Low	20's	Female	Caucasian	$0 – 24,999	2	0	5-7	Confident
"Dan"	September 2014	MC	Urban	Low	20's	Male	Caucasian	$0 – 24,999	1	0	3-4	Neither Confident nor Unconfident
"Jen"	October 2014	MC	Urban	Low	30's	Female	Caucasian	$75,000 +	2	0	1-2	Unconfident
"Michael"	October 2014	MC	Urban	High	30's	Male	Caucasian	$25,000 – 49,999	2	1	5-7	Very Confident

Note. This table presents a compilation of all the demographic information from the home cooks (*n=27*) involved in this project since 2008, and thus there are some slight inconsistencies based on questions asked and ranges reported. [a] Participants' names are given as pseudonyms for the related purposes of de-identification and confidentiality. [b] The researchers conducting each kitchen visit have been abbreviated as follows: AT is Dr. Amy Trubek, AN is Alyssa Nathanson, AE is Anthony Epter, SH is Shauna Henley, and MC is Maria Carabello. [c] Spectrum designations were made based on initial review of videos, with specific assignment to the lower end of the spectrum made by self-described "inexperience," and to the higher end through having attended culinary school and/or having more than one year of professional cooking experience.

Appendix F: Student Cook Demographic Questionnaire

Before proceeding with this full questionnaire, please confirm that you meet the study's minimum criteria (check and initial next to each item below). If you don't meet the criteria, or would not like to participate, you're welcome to return the questionnaire without filling it out any further. Thank you.

☐ ____ I have received, and read, the official research information sheet associated with this study.

☐ ____ I am 18 years old, or older.

☐ ____ If selected, I would be willing to be videotaped (during regular class activities), and interviewed on two separate occasions (outside of class).

☐ ____ I understand that my participation in this study will have no bearing on my grade for NFS 195: Food and Culture.

Name:

Preferred Email:

Gender:

Year Born:

Permanent Residence (city/state):

Home Town (city/state): *(if different from above*)

Ethnicity: *(may check more than one)*

- ☐ White/Caucasian
- ☐ Hispanic or Latino/a
- ☐ Black or African American
- ☐ Native American or American Indian
- ☐ Asian/Pacific Islander
- ☐ Other _____

Year in School:

☐ First Year
☐ Sophomore
☐ Junior
☐ Senior
☐ Other *(indicate expected graduation date)* _____

Major(s):

Minor(s), *if applicable*:

Current Living Situation:

☐ On-campus, with roommates and/or suitemates
☐ On-campus, alone (ex. in a private single, RA, etc.)
☐ Off-campus, with roommates and/or housemates
☐ Off-campus, alone
☐ Off-campus, with family or relatives
☐ Other *(please describe)*

_____

Number of Roommates and/or Housemates, *if applicable*:

I am on a campus meal plan (Y/N):

I have regular access to a kitchen to prepare my own food (Y/N):

If YES, during a typical week, how many dinner meals do you prepare for yourself (and/or others)?

☐ 0
☐ 1-2
☐ 3–4
☐ 5–7
☐ Don't know

If YES, during a typical week, how many nights per week do you either have dinner purchased from a restaurant (eat-in or take-out), or eat on-campus?

☐ 0

☐ 1-2
☐ 3–4
☐ 5–7
☐ Don't know

Which of the following terms best describes your confidence in your cooking abilities? *(check only one)*

☐ Very confident
☐ Confident
☐ Neither confident nor unconfident
☐ Unconfident
☐ Very unconfident
☐ Don't know

Appendix G: Food Involvement Scale

Developed by Rick Bell and David W. Marshall

Directions: Indicate your agreement with each of the following statements on a scale from **1-7**, with **1** being **'strongly disagree'** and **7** being **'strongly agree'**.

____ **1.** I don't think much about food each day.

____ **2.** Cooking or barbequing is not much fun.

____ **3.** Talking about what I ate or am going to eat is something I like to do.

____ **4.** Compared with other daily decisions, my food choices are not very important.

____ **5.** When I travel, one of the things I anticipate most is eating the food there.

____ **6.** I do most or all of the clean up after eating.

____ **7.** I enjoy cooking for others and myself.

____ **8.** When I eat out, I don't think or talk much about how the food tastes.

____ **9.** I do not like to mix or chop food.

____ **10.** I do most or all of my own food shopping.

____ **11.** I do not wash dishes or clean the table.

____ **12.** I care whether or not a table is nicely set.

Thank you, for participating!

Appendix H: Beginning of Semester Student Cook Interview Guide

Consent: Before we get started, are you comfortable with me recording our conversation and taking notes while we talk?

Overview: As an overview for where this interview is going, I'd like to discuss your experience with preparing meals, as well as your general approach, and process, for doing so. But, first let's talk a little bit about your relationship with cooking in general.

(10-15 min) **Opening Questions** (current cooking practices)

1. Could you tell me a little about your current cooking habits?
   i. Do you have access to a kitchen where you live currently?
      - Do you cook meals for yourself? For others? (if ***no***, skip down to iii)
      - How often?
   ii. If ***cooks consistently?***
      - Are there certain meals (breakfast, lunch, dinner) that you are more likely to eat at home?
        (1) Which meals?
        (2) Is this different on weekdays versus weekends?
        (3) Does this change during the school-year versus in the summer?
   iii. If ***does not cook consistently?***
      - Have you ever been in a position where you were preparing meals for yourself more regularly?
        (1) If ***yes***, are you cooking less now by choice, or are their factors that are currently preventing you from cooking? (e.g., time, space, money, etc.)
            (a) What factors are the biggest barriers for you right now?
            (b) What sorts of things would make it easier for you to cook?
        (2) If ***no***, do you have any aspiration to cook more for yourself, or are you content with your current situation?
            (a) If ***yes***, what are some steps you might take to work towards this?
                (i) Do you envision this course playing any role in this?
2. As you know, this course has a hands-on lab component. Did knowing this, (that there was a lab associated with the lecture), make a difference for you when deciding whether or not to enroll in Food and Culture?

(10-15 min) **Transition Questions** (previous experience/learning to cook)

3. Now, thinking back over the course of your life, what were some of your earliest exposures to cooking?
   i. Do you have any strong memories associated with this?
   ii. Who made most of the meals in your household?
   iii. Were you ever involved in meal preparation as a child?

4. When did you first start cooking on your own?
    i. If ***has started cooking independently***, what prompted this?
        - e.g., Necessity? Interest? Curiosity? Independence?
        - Have any of the earlier exposures that you mentioned influenced your own relationship with cooking at all? In what ways?
    ii. If ***has not started cooking independently***, why do you think you haven't gotten involved with cooking much at this point in your life?
        - e.g., Lack of …Necessity? …Interest? …Curiosity? …Independence?

(20 min) **Key Questions** (cooking process)

5. Now, let's say you were going to make dinner for yourself and a few friends or family members. How would you approach this task?
    i. What would you make?
    ii. Could you walk me through the various stages that might be involved in making this meal (from deciding what to make, to getting the ingredients, to actually preparing and serving it)?
    iii. *If needed*, prompt for: getting ingredients, planning (*logistical, spatial, temporal*), cooking, eating, clean-up – don't offer these outright, though.
        - PROMPTING NOTE: encourage participant to discuss *each step* in as much detail as possible; start getting at routines and value considerations.
    iv. Do you have any strategies for any of those steps, or the process in general, that you think would help you to prepare this dinner?
    v. What barriers, if any, do you envision you might run into throughout the process of making this meal?
        - How would you deal with those?
    vi. Do you have any particular commitments, values, or priorities that might influence the meal you decide to make?
        - For example in choosing ingredients, or deciding which preparation methods to use, what sorts of things would you be likely to consider?

(10 min) **Closing Questions** (strengths/weaknesses/attitude/feelings about cooking)

6. This final set of questions will focus more broadly on your overall relationship with home cooking. So first, what would you say are some of your greatest strengths and weaknesses when it comes to cooking?
    i. How did you develop those strengths?
    ii. Why do you think [x] is a weakness for you?
7. Would you say you are still learning, or growing, as a home cook? How, or in what ways?
    i. What sorts of things would you like to become more proficient at?
    ii. Do you have any particular plans to do this?
    iii. Do you anticipate this course helping you with [x]?

8. In general, how do you feel about cooking?
    i. If ***has some amount of experience***
        - Moments of triumph while cooking?
        - Moments of defeat while cooking?
9. In summary, how would you describe your overall relationship with cooking at this point in time?

***** That's the end of my questions. Do you have anything else you would like to share that we haven't covered, or anything you'd like to ask me?

Appendix I: End of Semester Student Cook Interview Guide

Consent: Before we get started, are you comfortable with me recording our conversation and taking notes while we talk?

Overview: As an overview for where this interview is going, I'd like to have a conversation pretty similar to the one we had earlier in the semester, but this time focusing a bit more on aspects of continuity and change in your everyday cooking practices, now that you've finished up with the lab portion of food and culture.

(5-10 min) **Opening Questions** (continuity/change of everyday cooking practices)

1. In our first interview, I asked you to tell me about your cooking habits. So, thinking back to that conversation, has anything changed? What are your home cooking habits like now?
   i. Cooking more or less frequently?
   ii. Cooking different types of foods/dishes?
      - What types?
   iii. What aspects of your cooking have more or less stayed the same?
      - Why do you think this is the case?
2. If cooking has ***changed***, how much of this would you attribute to what you learned through the food and culture lab?
   i. Do you think these changes will stick after the course is over?
      - Why, or why not?

(10-15 min) **Transition Questions** (learning to cook in lab)

3. Now, thinking back over the course of the semester, could you describe your culinary progression for me?
   i. What tasks have challenged you most this semester?
      - Has [x] gotten easier?
   ii. Has anything you've accomplished in lab surprised you?
      - In what ways?
      - Have you felt empowered by any of these accomplishments?
   iii. Are there any things that you've learned in lab that you've had trouble incorporating into your home practices?
      - Why?
        (1) Lack of resources (space, time, equipment, ingredients)?
        (2) Lack of structure (focus, controlled environment)?
        (3) Lack of guidance (input of instructors/peers)?
   iv. Were there any things in particular that you were hoping to learn, or get better at, but did not?

- If yes, are these things you envision yourself being able to learn outside of lab?

(15 min) **Key Questions** (continuity/change in cooking process)

4. During our first interview I asked you to walk me through the hypothetical process of making a meal for yourself and others. Do you think you would approach this task differently now, after having taken the lab?
   i. What would the major differences be?
   ii. Which aspects of the process would still be similar for you?
      - PROMPTING NOTE: For the two sub-questions above, try to get them to mention which *steps* (planning, shopping, preparing, serving/eating, cleaning-up) would be the same or different, and *why*.
   iii. Which strategies from lab do you think would be most helpful to use when preparing a meal for other people?
   iv. Are there any aspects of this process [meal preparation] that you would still like to learn more about, or get better at?
      - Which aspects, and why?
      - PROMPTING NOTE: Get students to discuss the differences between *lab environment* and *home environment*.
   v. Would you say you'd be more or less likely to make a meal for others now than you would have been at the beginning of the semester?
      - Why? Please explain.

(10 min) **Closing Questions** (strengths/weaknesses/attitudes/feelings about cooking)

5. This final set of questions will focus more broadly on your overall relationship with home cooking, and whether or not that relationship has changed now that you've completed the food and culture lab. | So first, I asked you to describe your strengths and weaknesses as a cook at the beginning of the semester, could you do this again for me now?
   i. Did any of these change, or are they pretty much the same?
   ii. If ***changed,*** are you surprised by this? Pleased?
6. What would you consider the most important things you have learned about cooking from taking the lab this semester?
   i. What things would you still like to learn?
   ii. What areas of your cooking would you still like to improve?
   iii. Are you satisfied with the progress you've made?
      - Why, or why not?
7. Overall, how do you feel about your experiences in the food and culture lab this semester?
   i. Do you feel more confident in your cooking abilities?
      - Why, or why not?

ii. Do you feel more skilled as a cook?
    - In what ways?

iii. Do you feel you still have more to learn?
    - What sorts of things?

8. Finally, what is your outlook on cooking at this point in your life?
    i. To what extent, if at all, has your experience in lab influenced this outlook?

***** That's the end of my questions. Do you have any final thoughts you would like to share, or anything you'd like to ask me?

Appendix J

Demographics of Student Cook Participants (n=8)

Participant[a]	Lab Section	Gender	Age	Ethnicity	Home State	Class Year	Major/Minor	Housing Situation	No. of Home Prepared Dinners/wk	Self-described Confidence in Cooking Ability	Food Involvement Score[b]
"Phoebe"	A	Female	20	White	Massachusetts	Junior	Anthropology	Off-campus; 4 Housemates	3-4	Neither Confident nor Unconfident	74
"Rachael"	A	Female	21	White	Vermont	Senior	Anthropology/ Spanish	Off-campus; 4 Housemates	1-2	Unconfident	50
"Emily"	A	Female	21	White	New Mexico	Junior	Global Studies/Spanish and Economics	On-campus; No roommates	1-2	Confident	79
"Lucas"	A	Male	21	White	New Mexico	Senior	Anthropology/ Psychology	Off-campus; 4 Housemates	5-7	Very Confident	78
"Eliza"	B	Female	20	White	North Carolina	Junior	Study Art and Anthropology	Off-campus; 5 Housemates	3-4	Confident	53
"Fern"	B	Female	20	White	Rhode Island	Junior	Anthropology/ Art History	Off-campus; 5 Housemates	5-7	Neither Confident nor Unconfident	71
"Claire"	B	Female	22	White	Massachusetts	Senior	Global Studies/ Food Systems	Off-campus; No roommates	5-7	Confident	84
"Brian"	B	Male	23	White	Maryland	Senior	Marketing and Entrepreneurship/Anthropology	Off-campus; 2 Housemates	5-7	Confident	77

Note. This table presents the demographic information from the student cook participants (*n=8*) enrolled in Dr. Belliveau's fall 2014 ANTH 185/NFS 195: Food and Culture Lab.
[a] Participants' names are given as pseudonyms for the related purposes of de-identification and confidentiality. [b] The Food Involvement Scale (Bell and Marshall:2003) was used as a proxy to assess the students' baseline cooking knowledge and experience at the beginning of the semester.

Appendix K: Food and Culture Weekly Lab Report Template

Developed by Dr. Cynthia Belliveau, Dr. Teresa Mares, and Dr. Amy Trubek at the University of Vermont

Title	**Integrated Writing Assignment** (Date, Theme and Number) **Due on Blackboard: Monday by 12pm for the previous week** *This writing assignment combines reflection and analysis of the labs with a synthesis of the course materials covered in lecture. Sections 1-4 of the assignment should be 3-5 sentences long and should be treated like a complete paragraph – organized and synthetic. Section 5 should be between 600-800 words long, or approximately 2 double-spaced pages.*
1. Objectives	This section contains all of the objectives for an individual lab. *This needs to be included each week.*
2. Mise En Place (2pts)	In this section you discuss the procedure that you followed during the lab. This includes the preparation sequencing starting with the raw ingredient and ending with the finished dish. Here, you should analyze the process and discuss lessons learned for the next time.
3. Results/ Reflection: Self (2pts)	In this section you describe the finished dish and provide at least 3 -5 key ideas/observations/revelations or questions you have about your experience today. Some points to consider: What did it look like? What did it taste like? Did the results conform to expectations - your own, from the recipe, or of the instructor? If yes, what made it work? Was it the recipe? The equipment? Prior experience? If no, what went wrong? Was it the equipment? Was it the ingredients? Was it lack of experience?
4. Results: Comparison (2pts)	In this section, you consider the following: how did your dish come out compared to those of other teams? The look? The taste? Sometimes you will all make the same dish, but at other times you will want to compare tastes, techniques, etc. as part of the objectives for the lab.
5. Reading Synthesis (6pts)	This section asks you to integrate the lab experience with class discussions, films, and assigned readings <u>by responding to specific prompts posted each week on Blackboard</u>. This section should include direct references (to readings, discussions, and films) that demonstrate a close and careful reading and synthesis of the materials.