"BEING A GOOD PERSON
IN THE SYSTEM WE ALREADY HAVE
WILL NOT SAVE US:"
INTERPRETING HOW STUDENTS NARRATE AND EMBODY THE PROCESS OF
SOCIAL CHANGE FOR SUSTAINABILITY USING AN AGENCY/STRUCTURE LENS

By

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ABSTRACT

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When undergraduates studying sustainability take action to make the change they want to see in their own lives, their communities, and the world, they often meet large, seemingly ossified systems that deflate their sense of efficacy. These students enter our classes and programs with a passion to effect change. The participants in this research, for example, dedicated a semester of their undergraduate careers to move to an ecological field station to study sustainability. During this semester, participants worked to develop solutions to local environmental problems, but met various barriers to change during this process. How do students respond to these barriers? How do we, as educators, help construct opportunities for social transformation in the face of unsustainable, unjust, and inequitable systems?

Using the agency/structure dialectic as a theoretical lens, this qualitative case study examined how students (a) narrate the process of social change for sustainability at various spatial scales, and (b) embody agency to work towards change for sustainability in their local contexts. Results suggest that students' local experiences with sustainability work (e.g., classes, community problem-solving projects) are predictive of the way they then envision the process of social change for sustainability in abstract, leading to new and revised imagined futures. Results also suggest that not all students' agency played a central role in shaping local systems, and therefore the ways they envision social change happening were constrained by their positionalities and experiences within their local communities.

Implications for environmental and sustainability education programs include a call for long-term, collective action to (a) help our students examine their own narrated dialectics in time and space, (b) ensure our students have equitable opportunities to engage in local sustainability work, (c) develop a critical consciousness in predominantly White institutions about how local dialectics privilege White American narratives, (d) rethink what "local" means for racially, culturally, and linguistically diverse students in rural American spaces, and (e) consider how our students' local experiences with sustainability and working for social change impacts their learning.

For Franco (a global citizen), Sarah (an analytical listener), Charlotte (an empowered activist), and Amber (a savvy mediator), who will forever have a special place in my heart.

For my wife Lisa (a crazy birder) who must be outside, but who stayed inside for hours to wash thousands of dishes and clothes and floors so I could write and we could sell our house.

For my mother Debby (a dedicated teacher) who taught me to learn, and my father Moe (a critical thinker) who taught me to question.

For my sister Sarah (a fiery artist), my brother Thaddeus (a rigorous debater), and their brilliant and beautiful children whom I hope will see in their lifetimes opportunities to participate in collective action that will make their communities and their world as good as they are.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

EMBEDDED MANUSCRIPT: THE SUSTAINABILITY DIALECTIC

Abstract

When undergraduate students studying sustainability take action to make the change they want to see in their own lives, their communities, and the world, they often meet large, seemingly ossified systems that deflate their sense of efficacy. These students enter our classes with a passion to effect change. The participants in this research, for example, dedicated a semester of their undergraduate careers to move to an ecological field station to study sustainability. During this semester, participants worked to develop solutions to local environmental problems, but met various barriers to change during this process. How do students respond to these barriers? How do we, as educators, help construct equitable opportunities for social transformation in the face of unsustainable, and unjust systems?

Using the agency/structure dialectic as a theoretical lens, this qualitative case study examined how students (a) narrate the process of social change for sustainability at various spatial scales, and (b) embody agency and change for sustainability in their local contexts. Results suggest that students' local experiences with sustainability work (e.g., classes, community problem-solving) are predictive of the way they then envision the process of social change for sustainability in abstract, leading to new and revised imagined futures. Implications for environmental and sustainability education programs include a call for long-term, collective action to (a) help our students examine their own dialectics in time and space, (b) ensure our students have equitable opportunities to engage in local sustainability work, (c) develop critical consciousness in predominantly White institutions about how local dialectics privilege White American narratives, and (d) rethink what "local" means for students of Color in rural

predominantly White spaces.

Introduction

How much of what we accomplish in our work is a result of our individual agency, and how much of what we accomplish is a factor of context and structure? In the earliest phases of this research, I began with this question in mind. I quickly realized that this is a problematic question for two reasons. First, it assumes a false dichotomy between individual and context, or agency and structure. Second, it assumes that the sources of our successes and failures can and should be quantified and divided between agency and structure. As a result of this research, I have started asking new questions that I hope will be more salient for environmental and sustainability educators and scholars, and that I hope will help inform equitable and meaningful learning.

Scholars and practitioners in the fields of environmental and sustainability education often stress the value of (a) knowing one's place, and (b) using that place-based knowledge to engage in genuine local work in the community to effect change for sustainability (Gruenewald, 2003; Sobel, 2004). But what does place-based learning look like for students whose ideas, culture, language, and ways of knowing differ from those of the local place? How might the work of some students be legitimized and privileged over the work of others? How might the interaction of agency with long-standing structures in local places enable and constrain the work that is done there?

This research aims to critically examine these questions in one particular time and space: the 2014 Sustainability Leadership Semester (SLS). This is a residential undergraduate program

that takes place at an ecological field station (Simons Nature Preserve) owned by a small, private liberal arts college in the Midwestern US (Simons College). In the 2014 SLS cohort, four students moved to the Simons Field Station and lived there for one semester. During the semester they took five classes together, which were taught by seven faculty and staff members; lived and cooked together; took over thirty field trips with the faculty; and engaged in group environmental problem-solving projects. The purpose of this research was to examine how these four students narrate and embody the process of social change for sustainability with respect to how agency and structure interact to effect change (the "sustainability dialectic"), and where the students situate agency within this process. The research questions were:

1. **How do participants *embody* the sustainability dialectic in their local context?**

2. **How do participants *narrate* the sustainability dialectic in abstract?**

3. **How do participants' narrated and embodied dialectics change over time?**

Review of Literature

To address these questions, I draw on the agency/structure dialectic as a theoretical lens. Before I overview my own interpretation of this dialectic and how I apply it empirically, I will first overview how other scholars have used this lens to conduct similar research. Gutiérrez and Calabrese-Barton (2015) described the value of the agency/structure dialectic as a means of directing the educational research community away from a deficit model of children in need of remediation. The authors see promise in this framework because it (a) directs research towards a more complex analysis of systemic structures, and (b) brings attention to power and positionality within learning contexts.

Bang and Marin (2015), used the agency/structure dialectic to study how resistance to dominant, colonialist ways of knowing can shift time-space relationships and construct new

futures. The authors provide evidence for how the students, in their use of the Menominee language, challenged the erasure of Indigenous ways of knowing that resulted from colonialism. Varelas, Tucker-Raymond, and Richards (2015) conducted a dialectical analysis in an early childhood science student's agency and identity work to show how one student worked through the structures of a read-aloud activity to co-construct knowledge with his classmates, thereby changing the structures that produced the read-aloud itself. The authors point out that although the social norms constrained interactions with other students, through the enactment of agencies within those spaces, the knowledge structures, current and future, were re-shaped.

Carlone, Johnson, and Scott (2015) use the language of *identity performanc*e to examine the learning of elementary and middle school female students over four years. The authors found that students successfully constructed new learning norms by working in the "cracks and fissures" of the social structures in their class. In other classrooms with different norms, the same identity performance met structural barriers that stifled the potential for structural transformation and equitable learning. This analysis highlights how outcomes of the dialectic depend upon the various agencies and structures present in a given time and space; simply examining the participant's learning or identity without attention to how settings impacted their performativity would not have yielded such rich interpretation of the students' challenges over time.

Olitsky (2006) used the dialectic to examine how students construct identities as learners as well. She found that dominant discourses positioned secondary students in two categories: college-bound or not. Her analysis revealed that some students re-authored themselves by resisting their positions as non-college-bound students, thereby expanding the limited positionalities offered by those who ascribed to the dominant discourse of school.

Gutiérrez, Baquedano López, and Tejeda (1999) have used the theory of hybridity and

hybrid spaces to describe the interplay between agency and structure across time and space. They explain how students' and teachers' language practices combined in a third (or hybrid) space to construct new modes of interaction. Talk (or language) was the mediating factor in the dialectic, which is similar to Archer's (2010) use of internal dialogue as a mediator between agency and structure. Building on the theory of hybridity and identity negotiation, Tan and Calabrese-Barton (2009) studied how middle school science students' strategic use of funds of knowledge and Discourses to transform the social structures in science classrooms. These hybrid spaces became sites where individuals' identities interacted with discursive structures to reinvent how action and interaction unfolded.

Krasny and Tidball (2009) used a *resilience systems* framework to examine how urban gardening initiatives in various local communities transformed physical spaces as well as attitudes of community members towards gardening. They demonstrate how participatory learning produced new social structures as well as a more resilient system, perhaps due in part to the "nested feedback loops" that resulted from the specific community organizing and action that emerged in their specific research contexts.

Gruenewald has written extensively about the importance of place-based research in environmental education (Gruenewald, 2003), which is another example of scholarship that demands attention to how physical structures and the Discourses associated with place can constrain and enable action for sustainability and the environment. Greenwood argues for the future of EE research to conceive of place as a more holistic structure that encompasses social, ethical, and ecological aspects together, considering how all of these components of place contribute to our understanding of the ways action and social change happen in specific spaces.

Theoretical and Conceptual Frameworks

This research uses an agency/structure dialectic as a theoretical lens. Many theorists interpret this theory differently, and the specific lens adopted for this dissertation is built from a variety of perspectives. As a result, this section is designed to describe how I interpret and use the framework for this specific research, and how these ideas are situated with respect to the foundational theories from which they were derived. This research emerged from a series of assumptions that drew me to specific theories of (a) learning, (b) agency/structure, and (c) positioning, each of which I overview below.

Learning. Assumptions about learning inform which theoretical frameworks I adopt to study learning empirically. These assumptions are that (a) individuals learn through doing and acting in social spaces, (b) the learning of an individual is ideally understood by considering the social, cultural, and historical context of that individual's learning, and (c) the individual and the individual's learning community reflexively impact each other.

Building on these assumptions, I draw on Lave and Wenger's (1991) concept of situated learning to characterize various modes of learning in social spaces. According to their framework, newcomers often engage in *peripheral* participation, where as old-timers engage in *full* participation, both of which are legitimate forms of achieving membership in a community and learning. Both forms of participation must be legitimized to have the potential to transform local norms. Learning develops as we learn to participate in social spaces. In order for actions to impact a community, and for community learning to occur, our actions must be recognized, legitimized, and utilized by community members in a way that challenges or impacts the structures, norms, and rules in that context. In this research, I am interested in how the ideas of my participants are legitimized in the social space of the SLS and their larger communities.

6

My assumptions about learning also draw from the ideas of Lev Vygotsky, who wrote

about how individual experience is a reflection not only of the individual, but the social context

in which the individual is situated. He expanded on this dialectical relationship in *The Problem*

with the Environment:

> It is not just the child who changes, for the relationship between him and his environment
> also changes, and the same environment now begins to have a different influence on the
> child. This *dynamic and relative interpretation of environment* is the most important
> source of information for paedology when environment is under discussion. (Vygotsky,
> 1994, p. 346, emphasis in original)

According to Vygotsky, the environment is subject to change according to the actions of the

actor, and the actor's activity is situated in a dynamic relationship with the environment through

which it is performed.

Agency/structure: the sustainability dialectic. The second set of assumptions I build on

concern the ways agency and structure interact to effect change for sustainability, or what I call

the "sustainability dialectic." I couch this relationship in the specific context of sustainability,

because this research is situated in a program of sustainability education. Student learning in this

program involved community-based problem-solving, and wrestling with ideas about

sustainability in class settings, which I hereafter refer to as their "sustainability work."

Borrowing on Giddens's structuration theory (1984), and Sewell's reconstruction of the

agency/structure dialectic (1992), one foundational assumption I take is that agency and structure

mutually constitute each other. This assumption precludes the examination of individual action

and learning without also considering how action and learning are informed by context. I draw

on Giddens's theory of structuration (1979, 1984), which complicates dichotomies between

individual and the group, micro and the macro, and agency and structure. Giddens theorized that

these false dichotomies perpetuated problematic assumptions about how individuals interact in

social contexts through time and space. He coined this co-construction the "duality of structure," which holds that "the structural properties of social systems are both medium and outcome of the practices they recursively organize" (Giddens, 1984, p. 25). Below I overview the constructs *structure, agency,* and *dialectic* as they are employed in this research.

Structure. Structure refers to abstract social norms and rules that constrain and enable how individuals and groups act. These might include racial, cultural, gender, or class norms. Structures are simultaneously an outcome of agency and also an element that acts upon agency. Structure can not be defined without including agency in its definition. The same structures can enable or constrain agency across time and space. Structures are invisible social constructs which are fashioned through human activity. Institutions and policies, although constructed through human activity, are not structures in this framework. Organizations of human activity, like governments, are *systems* that emerge from the dialectic between agency and abstract structures. Giddens posited that structure was entirely abstract, and that the systems that emerged from the dialectic, like institutions or policies, are external to structure.

Agency. Agency refers to actions of groups or individuals that are mediated through structures. Agency cannot be defined outside of structure, because it informs structures and is also enabled and constrained through the same structures it informs. Here, agency refers to visible actions that follow, resist, or expand structural norms. Students embody agency by participating and doing sustainability work in the SLS and neighboring communities. Their visible actions – speaking, doing, etc.—are their visible performances of agency. Agency can be enacted collectively as well as individually. Although agency has the potential to resist and transform structures, transformation is not inevitable. Reproduction of large-scale structures can result in local reproduction. This sometimes makes the structures—which are being reproduced

8

locally—difficult to identify because of the unique dialectics that emerge in that specific place and time. Structures can also be transformed and resisted through local dialectical interplay, when agents (individual or collective) redefine them through their own participation.

Embodied and narrated dialectics. Dialectic refers to the interaction between agency and structure. Although I separate the concepts of agency and structure to provide empirical clarity, I assume that agency and structure cannot be defined outside each other. I also aim for an analysis of the dialectic (and thereby systems that emerge from the dialectic), as opposed to privileging an analysis of either structure or agency, or individual or collective. The separation of these terms below is designed to provide empirical power; this separation does not suggest their theoretical independence.

In this paper, I refer to the activity I observe in the SLS as *embodied dialectic*, which draws on the concept of "embodied identities" (Tan, Calabrese-Barton, Kang, & O'Neill, 2013). Although I do not foreground the language of identity in this paper, Tan's work on embodied and narrated identity, or what some have also called "identity-in-practice," (Holland, Lachicotte Jr., Skinner, & Cain, 1998; Wenger, 1998) has been helpful in thinking about how to conceptualize *the dialectic*-in-practice, or embodied dialectic.

Tan et al. (2013) distinguish between "narrated identities" and "embodied identities" here in a similar way that I distinguish between "narrated dialectics" (stories of social change) and "embodied dialectics," (visible actions in social settings). This is also somewhat similar to Sfard and Prusak's (2005) conceptions of *actual identity* (embodied dialectic) and *designated identity* (narrated dialectic)*, although my use of the dialectic (instead of identity) is designed to focus on the interaction between agency and structure as situated in specific places and times.

Positioning. I describe my participants' subjectivities and identities in the SLS in terms of positioning and positionality. Positioning theory (Harre, Moghaddam, Cairnie, Rothbart, & Sabat, 2009; van Langenhove & Harre, 1991) has roots in cognitive psychology of social action, and comes from a tradition that is more closely aligned theoretically with cognitive perspectives on learning (as opposed to situated perspectives of learning). I use positioning theory in this paper to describe how my participants' actions situate them in relation to other participants and the sociocultural history of the SLS as the local dialectic unfolds. Positioning theory makes the agency/structure framework more powerful empirically because it provides a mechanism for "locating" the participants within the dialectic.

Positioning theory is relevant as a theoretical tool in this research for a few reasons. First, the reciprocity of the concept means that an individual's participation and actions in a space are always at least in part defined in relation to others (van Langenhove & Harre, 1991). This denies the idea that individuals have total control of their identity performances in different social spaces. Second, positioning implies a flexibility across spatial contexts and temporal scales. Therefore, how we are positioned by others and position ourselves contributes to the story line that emerges from a particular social space, but we can reposition ourselves as contexts change over time. Our positions can be negotiated and challenged to align with or resist structures that are picked up through local dialectics.

In the context of the SLS, agency (as enacted collectively and by individuals) is used to pick up and work through norms and structures. This dialectic produces systems of interaction that legitimize some actions over others; some modes of participation over others; some ideas over others; and some bodies over others. Positionality then situates the students in these dialectics. How do local dialectics legitimize their ideas? Which parts of their identities and

subjectivities do they use to position themselves within the group? Do they align themselves with the prevailing story, or are they positioned in opposition to the dominant dialectics?

Methods

Type of case. To study how students embody and narrate the sustainability dialectic in the SLS, I use a descriptive and interpretive case study with ethnographic characteristics. The goal was to describe the students' experiences and learning and to interpret what this means when viewed through my specific theoretical lens. I aimed to interpret (a) students' actions and interactions in the local context of the SLS (their embodied dialectics), and (b) how they describe the process of social change for sustainability (their narrated dialectics) as they move through the SLS. The case was therefore bounded in the time and space of the 2014 SLS. This case further contained four embedded case studies—one for each student participant. The embedded nature of these cases was designed to draw attention to their unique positionalities and learning within the SLS (Scholz & Tietje, 2002), and to examine how they embodied and narrated the sustainability dialectic differently.

Units of analysis. The unit of analysis within the case study are the students' (a) embodied dialectics and (b) narrated dialectics. Because the unit of analysis is a dialectic, the focus is not the individual, the collective members of the SLS, or the social structures in that space. Instead, it is the interactions between the individual, the individual's community, and the structures in that space/time. The unit of analysis for the embodied dialectics were observed when agency (actions of individuals or groups) worked through structures in the space/time of the SLS, creating local systems that constrained and enabled participation. Within these interactions, I identified how students positioned themselves and how they were positioned by others to further interpret their role in the dialectic. This unit of analysis, then, was composed of

numerous conversations and interactions the students had during the SLS that I was able to observe and talk with them about.

The unit of analyses for the narrated dialectics were the participants' descriptions of the process of social change for sustainability with consideration for how their models are situated in abstract space and time. For this I draw primarily on interviews. For example, I asked my students to explain how the process of social change happened, the barriers to that change, and their role in that change process. I constructed models of their narrated dialectics based on these conversations. My analysis examined how they described the interplay between agency and structure at various spatial and temporal scales, which structures they identified, where they situated agency within this interplay, and how they described their own role in the process of change for sustainability.

Data collection. During the first week of the SLS, I scheduled a group meeting with all four students during which I shared my primary research goals and gave them time to consider their participation. All four students in the 2014 cohort consented to participate with the understanding that they could withdraw at any time. I additionally met with the seven faculty and staff members (with whom I conducted one focus group interview) and gained their consent to participate. Primary data collection included a combination of interviews and field observations with faculty, staff, and students in the fall 2014 cohort of the SLS.

Interviews. Over the course of the research, I conducted a total of three "sets" of interviews with the students. These included a pre interview set (during the first week of the SLS), a post interview set (the last week of the SLS), and a delay post interview set (six months after the SLS ended). Each "set" consisted of an online questionnaire administered through Google Forms, which the students completed on their own. These questionnaires contained items

related to how they imagined the process of social change in abstract. Questions included (but were not limited to): What changes do you want to see in your own life, your community, and the world? What do you think is the best way to make that change happen? What are barriers to those changes? What is your role in that change? I read and coded the questionnaire responses and used the results to construct the associated interview protocol. This allowed me to inquire about ideas from the questionnaire that I felt were most relevant. Student interviews lasted between 30 and 120 minutes. Over time the interview protocols became increasingly tailored to their unique ideas and experiences as I became more familiar with their local sustainability work.

Field notes and observations. I took field notes during observations of classes, field trips, and other social events (meals, game nights, etc.). During indoor events I often took notes directly into a digital spreadsheet template designed for use in that specific context. When outdoors or in transition I took notes by hand in a field notebook. I recorded notes about where we were, who was there, what happened, and my interpretation of the events. On overnight field trips where I did not have my computer (e.g., the canoe trip), I used voice memos to document end-of-day reflections that I wanted to make sure to revisit during analysis.

During observations I moved back and forth between *observer as participant* and *participant as observer* (Glesne, 2010). During field trips and classes I played a role of *observer as participant*. This meant that during classes I usually did not speak, ask questions, or attempt to influence the discussions of the students and instructors. In other settings I played the role of *participant as observer,* during which I participated more centrally in the events. This included evening social gatherings, meals, field trips, and down time between activities. Participation in these types of settings included small talk, questions about scheduling, or asking for reflections on events we had recently experienced.

Analysis

  Interviews. I began the analysis process by reading and rereading my pre interview transcripts. I made notes of interesting and relevant moments and emergent themes. I applied preliminary codes based on a coding scheme I constructed before the research began, leaving space for the coding scheme to evolve as the research developed (Miles & Huberman, 1994). By the time of post interviews, I had coded and analyzed the field notes. Patterns had emerged that I used to construct early drafts of the students' narrated and embodied dialectics. I read and reread the post interviews and made notes using the transformed coding scheme. In the results section I distinguish between excerpts taken from the questionnaires and interviews so the reader can identify the difference between written responses (which sound more formal) and exchanges from an interview (which sound more like casual speech).

  Once all data were collected I input the questionnaire and interview data into the qualitative analysis software NVIVO for further coding to see if using the software would (a) reveal new themes or patterns that I had not noticed on my own, (b) confirm or contradict patterns that emerged from the earlier coding and analysis, or (c) provide a more nuanced interpretation of my data. This round of coding was valuable in that (a) it confirmed the patterns I had already identified, and (b) provided an organizational structure that allowed me to more easily locate interview excerpts that were most salient to the story.

  Field notes. Analysis of field notes began in the field when I was recording the notes. In the field I used shorthand to code segments of the notes that were relevant to my coding scheme. Analysis then continued each evening when I transcribed and coded the field notes from each day. I spent approximately 15-20 minutes coding and analyzing for each hour in the field. This took longer for hand-written field notes, which had to be transcribed into a digital template

14

before coding and analysis. The first step of this process was re-reading the notes to fill in gaps in the shorthand. This meant, for example, recreating conversations I wanted to expand (sometimes using audio recordings if available), expanding on reflections and coding, and summarizing the main events and meanings that emerged from that day's activities. I also made notes about patterns that were emerging in the data, and developed new codes and code combinations that reflected these patterns. I spent over 400 hours in the field during the SLS.

Member checking. Student participants were emailed versions of the preliminary results sections before I shared results with others. I allowed time for the students to respond before sharing with committee members or colleagues for peer review. Students also read subsequent revisions of their cases and the accompanying interpretation and discussion. This step was important to me because I wanted to make sure the students felt that they were involved in the review process and felt comfortable with the data I planned to share with the public. The participants from the SLS faculty and additionally read a draft of the dissertation before it was submitted. All names of people and places are pseudonyms.

Results

Context. The Sustainability Leadership Semester (SLS) takes place annually at a 1,200 acre nature preserve, hereafter referred to as Simons Nature Preserve, which is owned by Simons College, a small, private liberal arts college associated with a regional Christian faith tradition. Simons Nature Preserve hosts a variety of programs that serve K-12 schools as well as undergraduate and graduate students. The SLS is a residential undergraduate program that provides fifteen credits towards a major or minor in sustainability or environmental science.

The Simons Field Station is geographically bounded by a soybean/corn field to the East, a low-income White community to the North, and Nature Preserve to the West and South. The

surrounding community residents are more politically conservative than the residents of the Field Station. Neighbors fly American flags (which signify patriotism, conservative values, or support of the military), drive large trucks, and engage in traditional and industrial farming. Local residents use the land for recreational purposes like hunting and fishing. Simons Field Station challenges this Discourse by engaging in natural (organic) farming, pacifism (as associated with their local theology), and land preservation where hunting and trapping are prohibited. There are no American Flags visible at the Field Station. This pacifist Discourse contrasts the use of military and patriotism to build community in the surrounding region.

Introduction to the participants.

Charlotte. At the time of the SLS, Charlotte was a cisgender heterosexual White able-bodied environmental science major. She was in her third year of college and was interested in graduate studies in environmental education after graduation. She was a confident leader and enthusiastic speaker, and at the beginning of the SLS identified strongly with the ideology and culture of her Evangelical church. She did not shy away from conflict when her ideas were challenged, and eagerly challenged ideas with which she disagreed. In our post interview, I asked Charlotte what she would want people to know about her if they were reading this:

> CHARLOTTE: I think it is important to understand that I am a very in-the-moment, emotionally driven individual... This informs a lot of my responses in class and reactions to new experiences or concepts. I process out loud by talking and sharing with others. I also love to hear and build upon others' ideas. I find joy and motivation in creating connections, building bridges, drawing lines, and deeply analyzing ideas or perspectives. I also— because of my talkative nature— can at times not allow others a turn to speak, I don't listen well. This semester was a great opportunity for me to work on this because everyone was willing to share their opinion since it was such a small group. I would also add that I am a bubbly, smiley, and energetic individual. (Post questionnaire)

Charlotte had numerous childhood experiences that she described as formative in the development of her interest in sustainability, in both formal and informal spaces: "I think

because I grew up in a family that was environmentally conscious and aware of the actions that our consumerist decisions had, [that] really drove a relationship with the environment as a value for our family" (Pre interview). One childhood experience that contributed to her interest in sustainability was collecting eggs with her father on his "organic learning farm." She also attended an environmental-focused charter school from grades 4-8, and then spent one semester at a residential sustainability high school program called the "Conserve School" in Wisconsin.

Amber. At the time of the SLS, Amber was a cisgender heterosexual White able-bodied environmental science major in her third year of college. Amber grew up in a farming community in the rural Midwestern US on a traditional corn and soybean farm. She was gregarious and outgoing in social settings, and enjoyed meeting new people. She traced her interest in sustainability to the close connection to nature she developed growing up on a farm:

> AMBER: I was always outside, especially in the summers, running around barefoot…it was freedom. You could do anything you wanted. You had a deep connection to the land because that was your entertainment and that was how you lived…. I grew up with that freedom in the land and appreciation for it. That's how I came to want to take care of it, because I grew up on it." (Pre interview)

Amber often described herself as "outdoorsy," and when I asked her to explain what this meant she said "I'm not afraid to get dirty. I love animals and generally animals are outside. I enjoy just being in nature. I can sit in one spot and just observe the world around me. I like to hunt" (Post interview). Although she grew up on a farm, she didn't work as a farmer until early adulthood when she was employed on a sustainable farm which she said changed her ideas about agricultural practices. In our post interview, I asked Amber what she would want people to know about her if they were reading this, and she was reluctant to define herself: "I think it is important for people to understand my personality, but I am not the best one to define it. I think what other people see is what they should know about my personality" (Post questionnaire).

17

Sarah. At the time of the SLS, Sarah was a cisgender heterosexual White able-bodied environmental science major in her final year of college. Sarah was born and raised in a suburb outside a large Midwestern US city. She described herself as an introvert and an artist. She became interested in sustainability her freshman year, and cited the interdisciplinary nature of the field as key in her decision to switch majors from education to environmental science. The study of sustainability presented a challenge and juxtaposition that she appreciated as an artist:

> SARAH: I grew up seeing the world as both mysterious (from my mother) and predictable (from my father). I think this shaped my intellectual view as one that incorporates deep 'artistic' thought and quantitative reasoning simultaneously. I could never be a scientist without holding the idea that artwork is equally as valuable to the world as scientific work. When I learned about sustainability (first year of college) I was naturally drawn in. It incorporates the natural world and the social world and creativity through many different disciplines. There is an understanding that we have to think in new and different ways. (Pre questionnaire)

I asked Sarah what would be important for people to know about her if they were reading this, and she focused on her tendency to participate through listening:

> SARAH: It's important for people to understand that I am introverted, which drives a lot of how I operate in the world. I need time to sit by myself, be in silence, and ponder the day. I easily get tired when I am around a group for too long, and I often deal with this by withdrawing from the conversation…. When I was younger, I was often told that I was too shy and needed to work on my conversation skills….However, now that I am older, I realize that I am different because I am introverted, not because I am naturally shy…. Conversation can be my strong point if it is intentional, if I am well rested, and if there is not too much going on around me. (Post questionnaire)

Franco. At the time of the SLS, Franco was a cisgender heterosexual able-bodied interdisciplinary major in his third year of college. He was an international student from India. He was ethnically Indian with Brown skin and described himself as a person of Color. His interdisciplinary major allowed him to create a course of study that combined three interests: sustainability, IT/communication, and music. Franco grew up in a former Portuguese colony in India, which was influenced by Indian, Catholic, Portuguese, and British cultures as a child. He

spoke English fluently and his grammatical construction resembled an upper-advanced English Language Learner, meaning that he sometimes used non-conventional phrases and words but was always clear in meaning. He also spoke Hindi fluently as well as some Portuguese.

Franco traced his interest in sustainability to growing up in India, where he experienced lengthy power outages and lacked access to basic resources. Franco spoke of his positionality in Simons College and in the SLS as being influenced by his identities a global citizen, international student, and person of Color who grew up in a developing country. He often stressed the importance of global sustainability and environmental justice, which he described as stemming from a childhood surrounded by poverty. In our post interview, I asked Franco what he would want people to know about him if they were reading this:

> FRANCO: It's important for people to understand my background. Readers also need to understand the harsh reality of living on both sides of the developed and developing world spectrum. It's also important to note that I still face a lot of struggle with my life, especially financially. I live each semester not knowing whether I can afford to attend the next semester. I grew up in areas that lacked basic resources, such as electricity and clean water. It still horrifies me how people in America utilize resources at such a vast rate and waste so much…. I have seen both sides of the spectrum, which is why I find it so exceedingly difficult to be optimistic about the future. I truly believe that the wealthy consumes and wastes resources at the cost of the poor. I've seen it with my own eyes. (Post questionnaire)

Participants' Embodied and Narrated Dialectics

The following section provides an overview of each participant's embodied and narrated sustainability dialectics. Although the students' interactions in the SLS over the entire course of the semester were used to construct these cases, I provide only a few stories for each participant. Each case aims to highlight how they embodied the dialectic locally, how they positioned themselves and how they were positioned within local dialectics, and how their local embodiment of the sustainability dialectic informed their narrated dialectics.

The case of Charlotte.

Charlotte's embodied dialectic. In the local context of the SLS, Charlotte positioned herself as an activist and a doer who was willing to mobilize others to take action for sustainability. As an agent of change, it was important for Charlotte to include her voice in any discussion, and to play a central role in the local dialectic. Charlotte typically picked up the dominant narratives of her social context and used them to co-construct new social norms that allowed her to play a leadership role in the discourses of her local contexts. She responded viscerally when she was excluded from any conversation, and worked to find a way into the center of the local dialectic. She played a central role in most interactions of the semester.

For example, early in the semester, Charlotte expressed interest in attending the People's Climate March, which took place on September 21, 2014. Although Charlotte ended up skipping the march, this was just one example of how she positioned herself as an activist. Charlotte similarly expressed interests in mobilizing others to work for change or protest, even in the local context of the SLS. For example, early in the semester the students were discussing pros and cons of having only four students in the program. Charlotte pointed out that "with only four people it will be really hard to skip class. But on the other hand, it will be really easy to boycott, because we'd only need to convince three other people" (Field Notes, 8.30.15).

One particularly salient event for Charlotte during the semester was a conference the students attended at a local theological seminary. The conference theme focused on the relationship between theology, people, land, and environment. Students participated by attending concurrent sessions of their choice. Charlotte expressed acute dislike of one of the morning's sessions. She said the leader (a sociologist) devalued the individual's role in the process of social change. The excerpt below is a reproduction of an exchange between Charlotte and Pierre (a

professor) during the post-event debrief. This took place outdoors at a picnic table, where we were joined by Alfred (a professor), Amber, Sarah, and Franco. It is important to note that in group reflections like these (in the presence of professors) I did not typically contribute to the conversation. Here, Charlotte's reflection was so closely connected to my research interests I asked her a question directly:

> CHARLOTTE: The last session's speaker Ronny was totally bashing on the individual. He was placing all importance on the social and the society and peer pressure and structure and denying the individual any role. I mean I like that he used different scales and said they were all important, but then he totally bashed individual action.
> ME: How was he bashing individual action?
> CHARLOTTE: Well, he was talking about how it takes all these different scales for social change to happen, but then he only talked about the large global scale and bashed the individual.
> PIERRE: Well maybe he was saying that individuals are often the focus of these conversations. It's true that individual actions are often over emphasized when we're talking about social change.
> CHARLOTTE: Yes, I totally agree that individuals are overemphasized, but you need individuals to make the system change. He totally ignored that. You can't change the system without individuals deciding to go make the changes. (Field Notes, 9.18.14)

Charlotte might not have had such an emotional response to this session if she did not situate empowered individuals at the center of local dialectics. The severity of her response suggested that excluding individual actors from stories of change was antithetical to her vision of the sustainability dialectic. Although Charlotte agreed that individuals are not the only solution, she was still angered at the suggestion that individuals were not the drivers of change in a system.

Earlier that day, Charlotte responded strongly to another session. I was sitting at a table with Sarah and Franco between sessions drinking coffee. Charlotte came into the room and sat down "in a huff" (field notes, 9.18.14). She expressed her dislike for the session she'd just been to, describing her discontent with the local theological culture and how she was made to feel like an outsider as an Evangelical: "This guy said that Evangelicals are individually focused. In my church we were about community. But [the local religious group] think[s] they're so community

and peace oriented…. But they only let people in who are like them" (Field Notes, 9.18.14).

By this point in the semester I was aware of Charlotte's passion for her strongly held beliefs, as well as her dedication to being an agent of change in her community. I traced this emotional reaction to the juxtaposition of her desire to be a leader and her feeling of exclusion during the conference. Both experiences with exclusion—being excluded as an Evangelical Christian, and being excluded as someone who believes in individual agency—proposed a problem for Charlotte. As an agent of change, it was imperative that her own agency be positioned as central to the local dialectic. She did not respond kindly to either interaction, which positioned her as an outsider and therefore not a primary driver of local change.

Later in the semester Charlotte had a confrontation with this problem that resulted in some reconciliation with the parts of her identity that she thought excluded her voice. During David's class they read a book called *Buffalo Shout, Salmon Cry* (Heinrichs, 2013)*,* a non-fiction edited volume including Native American and Christian perspectives. The book critically examined European colonialism, genocide of Native American cultures, the silencing of the Native American experience by White narratives, and the role of Evangelical Christianity in these events. During their discussion of this book, Charlotte shared new revelations about her own position as an Evangelical with respect to other religions:

> CHARLOTTE: Chapter thirteen was really hard for me to read. Everything I grew up believing seems so false now. With like, what, ten pages? I was like "Wow. I don't want to be a Christian."…. There was nothing redeeming in this at all for Christians…. It's not like she's saying things that are false. It's just I've never thought about it from this perspective…. She was talking about how [Christians are] saying that the only way to truth is through Christ, which is a central doctrine to Christianity… I totally see what she's saying here, that by claiming that [only Christians have truth], you're saying that you're superior to other religions. I have no idea how to even talk about that. How do I legitimize other religions and say that they're important while also holding my own piece of the truth? That's impossible. It's a paradox. How can I claim something as truth, but then also say "these are also other truths" without saying I believe in everything? (Audio Recording, 11.11.14)

Charlotte's struggle with this "paradox" surprised the other participants in the room because she had positioned herself so firmly as an Evangelical until this point. Despite the shock factor, her willingness to critically engage with this part of her identity positioned her more firmly as an insider in the local dialectic as led by David, who supported this critical examination and was in a position of authority as professor to pick up this narrative.

Charlotte was critical of her own Evangelical background in a way that the dominant dialectic in the room encouraged— both the book they were reading, as well as the local theological perspective associated with Simons College, would have encouraged her to question her Evangelical loyalties. As a result, her agency became central to transforming the storyline and narrative in that space once again. The local dialectic thereby created a system of interaction that supported her critical reflection, and her own agency played a central role in that dialectic.

Charlotte's narrated dialectic. Charlotte's narrated dialectic was reflective of her lived experiences in the local context of the SLS. To begin, her narrated dialectic was bounded in a local scale. In our interviews I asked her about change on three different scales: her own life, community, and the world. She repeatedly returned to the local community to describe change, and defined the scope of this process bounded in systems within her reach. Agency was situated within herself (or sometimes another empowered individual). Charlotte was explicitly skeptical of working for change in regional or global scales. From her perspective, these large systems were slow to change and out of touch with local needs and issues. Figure 1 provides a visual model of Charlotte's narrated dialectic.

Figure 1. A visual model of Charlotte's narrated sustainability dialectic
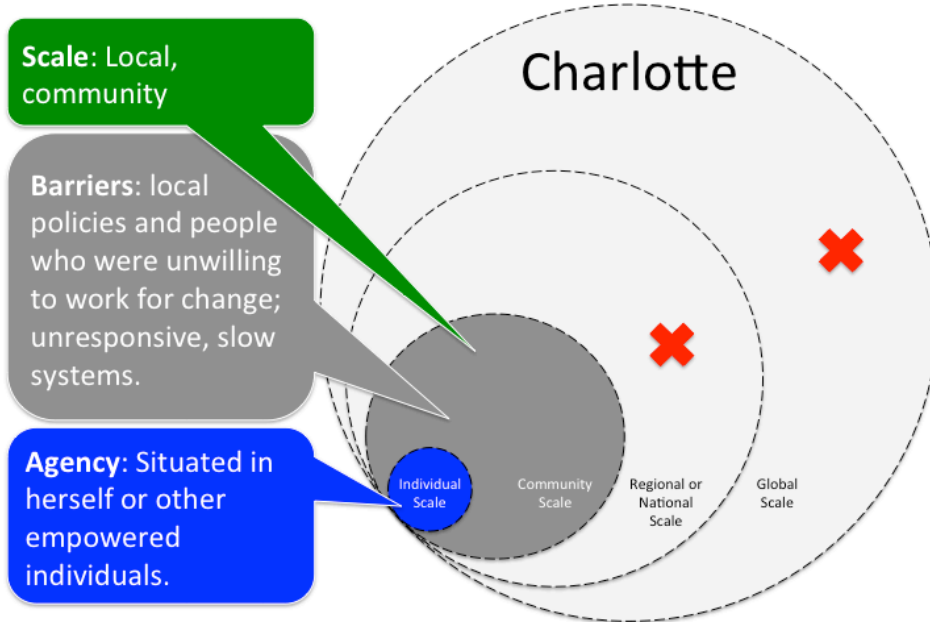
The key actions needed for change in her narrated dialectic included: modeling sustainable behaviors to others; spreading awareness; mobilizing others to make change; helping people feel empowered to make change; engaging in systems analysis; and listening to the perspectives of others to better inform her own actions. Conflict and failure were key events in her model, and the main barriers to this process included: slow responsiveness of large systems; lack of awareness and education; and individuals' unwillingness to take action.

Charlotte's narrated dialectic was reflective of her embodied dialectic in a few key ways. First, she was positioned and positioned herself in the local context of the SLS as a leader who was willing to work around barriers to effect change. Charlotte's narrated dialectic similarly included a passionate individual who was the driver of change. Neither her embodied dialectic nor her narrated dialectic focused on structural constraints or enablers. Although structural constraints were sometimes mentioned, the focus of both dialectics was on individual agency.

The case of Amber.

Amber's embodied dialectic. Amber positioned herself as a mediator between worlds. She worked to maintain a position as a neutral mediator between (a) sustainable agricultural communities and traditional farmers, (b) the Mennonite and Pentecostal communities, and (c) the human and the natural world. Amber used social relationships with those in her immediate community as a tool for bridging gaps between worlds that others often thought of as tension-laden. Amber was a savvy consumer of local dialectics, and positioned herself so that she could circumvent potential conflict by remaining neutral and working as a mediator between groups, and also by maintaining her insider status on both "sides" of any conflict.

One of the ways Amber engaged with others was by sharing her love of nature with them. During the discussions with community members, Amber often interrupted conversations to direct the group towards an animal that she had spotted nearby. My field notes contain numerous descriptions of a group conversation followed by a short note about an animal Amber had discovered: "Amber found a frog in a nearby bush and invited everyone to look at it" or "On the way into the lumber mill Amber stopped to rescue a wet moth from a puddle." She positioned herself as a mediator between the human and animal world, and enjoyed helping those around her feel more connected to nature.

One of the more interesting exchanges early in the semester that was salient for Amber's story was during a meeting with Kevin, the property supervisor of Simons Nature Preserve. As he introduced himself, he began to tell a story about the conflicting perspectives between the local residents and the Nature Preserve community. As a local, Kevin knew the residents did not appreciate the Field Station for a variety of reasons: it wasted good farm land, deer from the Field Station often destroyed crops on nearby farms, and hunting was prohibited (which

prevented them from using and knowing the land in their own ways). During his career at Simons (over twenty years), local residents had tried to set buildings on fire, broken windows, destroyed signs, hunted on the property, and fired bullets over Kevin's head when he interrupted illegal activity.

Kevin described himself as a mediator between these groups, because he'd grown up in the local town and knew most of the residents, but was an insider at the Nature Preserve as an employee. Later that week, I asked Amber about this story:

> ME: That makes me think of the other day when…Kevin was talking about how there's this tension between the Nature Preserve and the farmers that live around it. I think that's kind of an interesting relationship. What did you think about that?
> AMBER: I thought that was really, really interesting just because I realized the struggle. I come from the farming aspect of it. That's their livelihood. But I'm also a person who loves a place like [the Field Station]. So it's like I'm kind of that person in the middle who realizes the need for agriculture but I'm also the person that realizes the need for environmental places. So I guess that kind of makes me the middleman who can see both sides and hopefully bring things together. You need cropland, but there are other ways to do it. (Pre interview)

Amber positioned herself in the SLS as a neutral mediator who was able to see different sides of a conflict and work to "bring things together." Based on early observations, I would have placed Amber in a more politically conservative group due to her connections to the local farming and hunting communities, but Amber was explicitly opposed to defining her identity through any group membership. This was important to her position as a neutral facilitator of dialogue between groups with opposing ideas. This allowed her access to a more central role in local dialectics because she was able to pick up the structures she thought were most useful for facilitating conversations, and exclude other structures that impeded communication.

Amber participated most enthusiastically during field trips that had agricultural themes. Amber positioned herself on these field trips as a knowledgeable participant who was optimistic and interested in getting to know the farmers. She described herself as a social learner, and the

SLS memories that stood out to her were mainly field trips and meeting other farmers:

> ME: So why do you think the field trips stuck out instead of other things in the semester? AMBER: I'm a "hands-on" person and [I like] being able to see things. I'm very visual. So being able to see things, to be interactive with people who are involved in it, I think that's why it sticks out. That's my kind of learning. Sitting in lecture is not [for me]. I space out a lot. (Delay post interview)

During events, Amber also positioned herself as someone who was interested in hearing all sides of the story, and was rarely critical of the practices of those we met. One of the field trips was to a large manufacturing plant that produces GMO corn and soybeans, hereafter referred to as "GMO Seed Company." This company was one of the largest in the world, holding a considerable percent of the global market for corn and soybeans. Because of Amber's familiarity in the farming community, she positioned herself as an expert on this trip, and lead much of the reflection and discussion that took place before, during, and after.

Many of the SLS participants were openly critical of the practices of the GMO Seed Company, and for many of them this field trip was a primary example of an unsustainable model of industry. Charlotte, for example, did not shy away from asking confrontational questions during the tour. She was familiar with the practices of the company, and put the tour guide on the spot. She asked questions like: "Why is there so much tension between you and [Other GMO Seed Company]? Would it be possible to merge? What are the implications of having such a large company taking up so much of the industry? Do you ever have communication issues with farmers? Why is [Other GMO Seed Company] the 'bad guy? What kind of research do you do on the pollinators?"

In contrast to Charlotte, who positioned herself in conflict with the company, Amber focused on explaining how their policies work in practice with farmers. She explained to those who were openly critical of the plant why and how their system offered farmers economic

opportunities. She worked to help the group see the company less as "evil" and more as a system that emerged from a need in the world for reliable farming products. For example, the operations manager had mentioned how the GMO Seed Company used all parts of their product, diverting as much waste away from the landfill as possible. Their corncobs were sold to a mushroom factory as a food source, and waste was used to make animal bedding. Amber pointed this out and said "Well, at least they're trying to be sustainable."

Although Amber was critical of the practices of the company and a proponent of sustainable farming, she was reluctant to speak about the company as disparagingly as Charlotte, for example. Amber spent her time helping the others understand how and why the GMO seed company operated instead of focusing on a critical analysis of the company itself. She played the role of mediator between the GMO corn industry and those in the SLS who wanted to make agriculture more sustainable.

Amber's narrated dialectic. Overall, Amber's narrated dialectic was reflective of her local embodied dialectic in that her narrated model enfolded at a community level, where a politically neutral mediator who was familiar with both sustainable and traditional farming practices could work to facilitate dialogue and spread awareness about sustainable agriculture. This engendered a ripple effect, which would enable the practices to spread to larger scales. Figure 2 shows a visual model of Amber's narrated dialectic.

Figure 2. A visual model of Amber's narrated sustainability dialectic
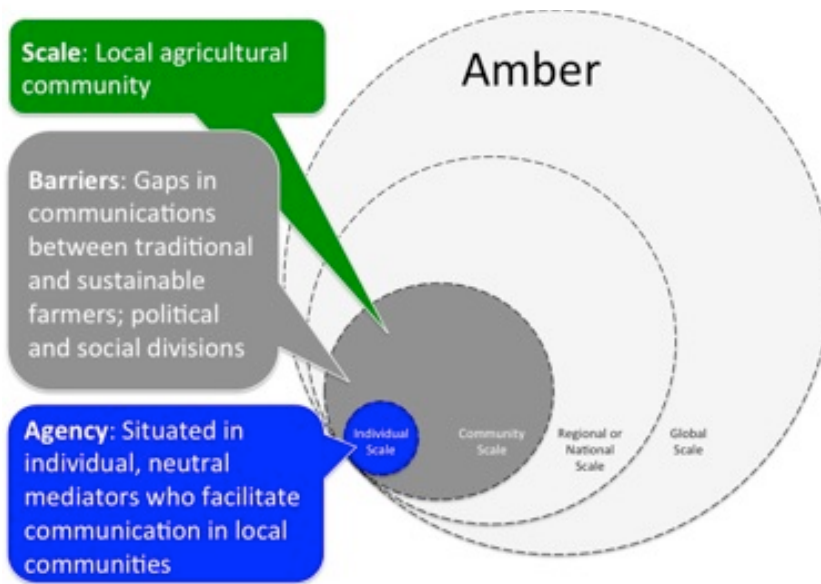
This was reflective of her positioning as a middle person in the local context of the SLS. Amber grew up on a traditional farm. However, positioning herself in the traditional farming community, either in terms of practice or political ideology, may have threatened her position as a mediator within the SLS. As a result, Amber positioned herself as a proponent of sustainable agriculture at times, and traditional agriculture at other times. Amber envisioned the mechanisms for change being driven by a mediator who would work to bring opposing sides together, facilitating dialogue that would spread the word about sustainable agriculture.

In both her narrated and embodied dialectics, agency was embodied through an individual who was willing to serve as this middle person. In the local context of the SLS, she was reluctant to explicitly identify with a political party, and she often avoided bringing ideas into a conversation that she thought might create tension or conflict. It is not surprising that the structures she identified in her narrated dialectic, then, were tribalism and group think that stunted open-mindedness and willingness to listen to change. Her narrated dialectic focused on individuals working against ideological structures of tradition. Amber's narrated dialectic

focused on the interaction between agency (mediators) and structure (tribalism; tradition) in farming communities. The outcomes of this dialectic were ideally dialogues between groups that would increase the prevalence of sustainable farming practices and engender open-mindedness and listening.

In our delay post interview, Amber shared a reflection about her experience as an intern on a local sustainable farm that had implications for her narrated dialectic. Before this experience, Amber (like Charlotte) described the driver of change for sustainability as a passionate individual. During her internship, however, Amber experienced frustration with challenges of small-scale organic farming that made her question whether or not she wanted to dedicate her career to farming. Not playing a central role in the farming community posed a challenge to her model, because this meant removing herself from the central position as mediator of the local dialectics that she envisioned would lead to change. During the time of our interview she had just begun to think about this problem.

The case of Sarah.

Sarah's embodied dialectic. During the SLS, Sarah positioned herself as a listener who valued hearing a diverse range of perspectives. She struggled to get her voice on the table, and was often positioned by others as a peripheral participant. She was particularly sensitive to positional relationships between herself and her professors, who often picked up and reproduced structures that she described privately as problematic. Sarah also positioned herself in her relationship with me as a critical analyst of community dynamics, and she explicitly commented on how local dominant narratives privileged some voices over others.

One context during which Sarah's local embodiment of the sustainability dialectic was most salient was classes. Sarah struggled to get her ideas on the table when she disagreed with

the dominant storyline. She was most reluctant to share her ideas in Pierre's and Alfred's classes, which she described as being "more suited for Christians." Part of this reluctance, she said, was because she felt her professors assumed the students shared a homogeneous Christian perspective, which Sarah actively resisted. Because Sarah never shared her personal perspective with SLS faculty, they often spoke to her as if she shared their Christian views on sustainability and the environment, thereby contributing to Sarah's struggle to have her ideas legitimized.

I learned most about Sarah's faith perspective not during classes, but in one-on-one conversations and during interviews. Although Sarah was reluctant to position herself against the dominant Christian social perspective in class, she devoted a considerable amount of space and thought in our interviews and questionnaires to discussing her discomfort with communities that limited their perspectives to one religious tradition: "The Christian perspective is not the top or best way of addressing environmental justice. I think a diversity of perspectives and religions are necessary" (Post interview). Being a student in a classroom where she felt she was being graded for her religious perspective presented a threat to Sarah. The positioning of power and authority between professor and student created a barrier for her learning and participation.

In addition to pushing back against the dominant Christian narratives, Sarah also struggled with what she saw as a dominant agrarian, rural perspective that devalued urban action. In personal conversations and in our interviews she reflected on the dismissal of cities. For example, in the post questionnaire, I asked students to explain how their ideas were similar to or different from others' in the SLS. Other students shared a combination of similarities and differences, but Sarah's questionnaire focused mainly on differences. I asked her about this in our interview:

> ME: I asked you about how your ideas about sustainability were different or similar to people [in the SLS] and you said "I like the city, I don't think it's evil, I think people can

31

be connected to nature if they're from the city. Agriculture was glorified and living in the city was looked down upon." That's interesting. Can you tell me how that happened or an example of how you experienced that?
SARAH: Sure. Wendell Berry was highlighted a lot which is great. I like Wendell Berry. But in a way there is this narrative where people move to the city because they're attracted to the success it will bring. And then the countryside [would be] deserted, which is true. But there's so much good in the city. Lots of different people can come together here and have conversations. There's so many different people intermixing and talking to each other and I think it's fine if you want to live in the city. (Post interview)

Although Sarah disagreed with this dominant ruralist narrative, she rarely let this show during class. This gave Pierre no opportunity to respond, and her alternative perspectives were therefore not validated. Her primary mechanism for resisting the ideas she disliked was silence. This allowed the narratives she disagreed with to be reinforced, thereby contributing further to her exclusion and frustration as the semester progressed.

One of the events to which Sarah responded positively during the semester was the session at the seminary conference (the same speaker that Charlotte disliked). I did not attend this session, but Sarah told me about that day, and brought it up again in our post interview:

SARAH: For me, problems will be solved if the systems and society changes in a way that is different.
ME: Okay, say more about that, what do you mean? Why is systematic change more important?
SARAH: Well it was really cool to hear… there was a sociologist who talked about what the real issues are. He talked about where the church is focusing on in the climate change discussion, which is really cool. He analyzed all these different books and how valid they were, research wise, and where the discussion is going. He had this pie chart which was really interesting: the church tends to focus on waste and recycling and using reusable bags, and how as consumers we can consume less and that type of thing. But that's not where most of the energy is used. Most of the energy used is in production. So being a good person in the system that we already have will not save us. In order to be more sustainable you have to address where the problem actually is. It's not only how we act in our system, it's the system itself. (Post interview)

Sarah resonated with the sociologist's suggestion that we should lessen focus on the individuals, and instead engage in systemic analysis and improvements instead of focusing on in "being a good person in the system that we already have." For Sarah, individual agency was

constrained considerably by barriers that exclude some people from the decision-making process. Community cooperation was a more relevant mechanism for change. Figure 3 provides a visual representation of Sarah's narrated sustainability dialectic.

Figure 3. A visual model of Sarah's sustainability dialectic
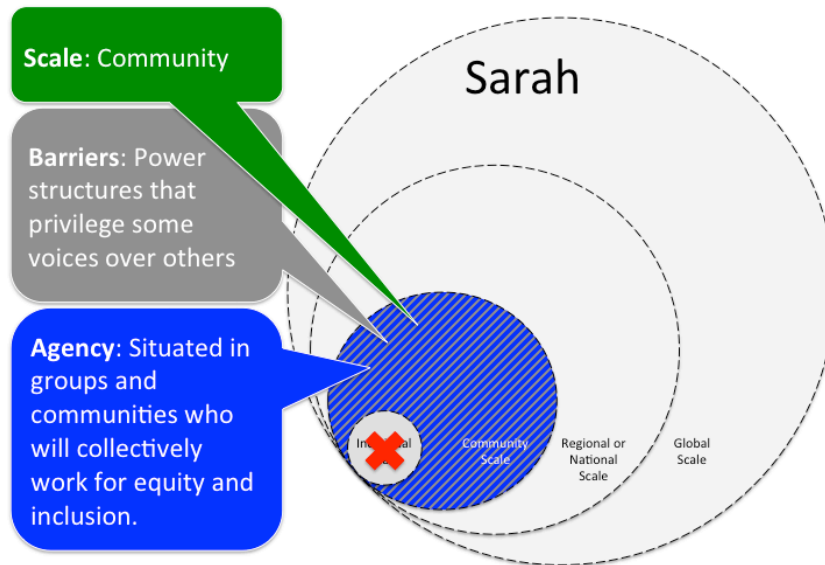
Overall, Sarah's identity performance was constrained considerably by the dominant social norms in the SLS. Although she positioned herself in resistance to storylines in some spaces, this positioning did not result in major transformation of the dialectic. As a result, she was consistently positioned in opposition, and her own agency was not as effective in transforming the structures as she wanted. The agents who were positioned to pick up the structures in that local space were those who were aligned with Christianity and who held intellectual authority in that space.

Sarah's narrated dialectic. Perhaps because Sarah struggled to play a central role in the local dialectics in the SLS, Sarah's narrated dialectic was situated in the community scale, and she situated agency in community groups who would work to create equitable systems that valued both people and the earth. The structures she identified as perpetuating unsustainable

practices included the norms and rules of local groups that valued some voices over others. She described barriers to collaborative action needed to make change for sustainability mainly in terms of (a) dominant leaders who did not consider all perspectives, (b) minorities being silenced and therefore not participating in action for change, and (c) action for change targeting the wrong structures due to lack of diverse perspectives. Change happened when local groups enacted agency and worked to resist structures that valued individuals for their monetary worth, and instead strived to create racially, socioeconomically, and ideologically diverse communities.

This is reflective of Sarah's struggle in the SLS to position herself centrally to the local dialectic. She was often quiet in classes, particularly when her ideas challenged those of her professors'. It is not surprising, then, that when Sarah described the process of social change for sustainability in abstract, she was openly skeptical of individual agency, and that she situated agency in groups. She envisioned the interaction between agency and structure being most equitable when agency was used to pick up large-scale structures and transform them locally in ways that that valued people regardless of monetary worth, and resisted structures that devalued certain individuals. The outcomes of her envisioned dialectic were ideally equitable, just, and resilient communities that could respond to challenges in ways that valued people and reduced exploitation of the earth.

The case of Franco.

Franco's embodied dialectic. During the SLS, Franco positioned himself as a global citizen who approached problems of sustainability from a large-scale perspective. As a non-American who identified as a "person of Color," he constantly pushed back against White American narratives that were reproduced in the local context of the SLS and surrounding communities. Although he was able to transform much of the local discourse in the space of the

SLS classes, he was positioned as an outsider by many local citizens.

One of the events during the semester that was most salient in understanding Franco's embodiment of the local dialectic and how this impacted his sustainability work was a neighborhood study assignment. This required students to investigate a local neighborhood by making observations, interviewing citizens about their concerns about local environment and sustainability issues, and finally using the data to construct a sustainability proposal to present to the local community. Franco chose to do his study in a local town called Marietta.

Franco selected Marietta because it was close enough to reach on his bicycle. On his first visit, which was also his last, he had a few interactions with local residents, two of whom informed Franco that Marietta was "the first White settlement in [the state]," which made him feel unwelcome. He also met with a local resident who took pride in the fact that he had never stepped foot outside of the local town in his life of over fifty years, again confirming to Franco that the residents were not interested in exposing themselves to unfamiliar cultures and customs.

On his way out of town, Franco was cut off by a sheriff who pulled his car in front of Franco's bicycle. The sheriff informed him that there had been complaints from the Marietta residents of a "suspicious" person in the area, and asked to see Franco's identification, what he was doing there, and searched his bag. Franco was able to produce only his college identification. He explained to the sheriff the reason why he had been in town and that he had not trespassed on private property. He also added that the sheriff was welcome to call his professors. After making a call, the sheriff let Franco ride back to the Field Station.

This experience took place during the first wave of Ferguson unrest that emerged in response to the shooting of Michael Brown by a Ferguson police officer in August, 2014. The national dialogue surrounding the shooting and the subsequent protests were highlighted daily in

the media, and the country was becoming more aware of the heightened tension surrounding

interactions with police and people of Color. This incident was particularly traumatizing for

Franco because of the threatening interaction with the sheriff. Racial profiling was something he

was familiar with through his experiences in the US, but the direct interaction with the sheriff in

light of the recent national unrest scared him.

Franco and I had a conversation about the incident shortly after. He framed the story as a

fairly common type of experience as a person of Color in the US. He recounted numerous stories

about threatening interactions with White citizens near Simons College. For example, he told a

story about an interaction he had with a resident when he went to test local river water for an

environmental science course:

> FRANCO: I bike a lot, and I always go to these very remote areas because I like
> exploring; it's what I like doing. And people would just always ask me what am I up to
> and stuff like that. I'm like "I'm just biking; it's a bike path. What else am I going to
> do?" These were like remote areas. I remember once I was doing this [water] testing
> work at the river. And then these people, I don't know, I think I'm pretty sure he had a
> gun on him; he comes out, he's like "What are you doing?" This is a river. This is not
> even his property. He tells me to get lost. (Audio Recording, 10.22.14)

These types of interactions were familiar to Franco as a person of Color living in the

predominantly White city where the College was situated. Although Franco described his overall

experience at Simons College positively, his reflections were peppered with constant struggles

he faced as an international student and person of Color in the region. Franco situated this

incident in a larger context of the rural Midwest, where he often felt unwelcomed.

> FRANCO: So honestly my impression about the Midwest is terrible; I absolutely hate it.
> And it's sad because this is the only place I've really lived in America, so I'm not really
> getting a very good impression of it. I've been to Boston and I loved Boston. And I've
> been to Chicago. I feel like the more urbanized areas, I feel a lot more welcome. I see
> people who are a lot more open-minded, and I know I don't have issues there. Every time
> I come to areas like this, I have so many issues, and I just want to graduate and leave.
> Never come back. (Audio Recording, 10.22.14)

Franco did not return to Marietta, but did complete his proposal for a sustainability plan for the town. His proposal was focused on strategies for making Marietta more welcoming and diverse so strangers would feel comfortable moving in and creating economic growth. This event disappointed Franco not only because of the way he was treated, but also because he missed the opportunity to present his findings to the local community like the other students.

Another way Franco positioned himself and was positioned in contrast to local narratives was that he was a proponent of urban solutions to sustainability. He pushed back against ruralist perspectives when they came up in class. During one of these classes, they talked about environmental attitudes needed to be an environmentalist and where they stemmed from. This is Franco's interpretation of this discussion:

> FRANCO: We were talking about this idea of having a relationship with the environment. [The professors and classmates were saying] that if you live out in nature that means you have a higher chance of being astute of environmental care. Which I think is absolutely crap, because I've lived in the city quite a bit of my life and I'm so interested in [the environment]. My theory is that people who live in the city are actually people who do most of the environmental work at a certain aspect. In the city people have smaller spaces – they use things a lot more efficiently. They have public transportation. They have to walk everywhere they go. We don't have big properties where it's like "this is my land." You have to share your stuff and I think that bridges a community itself because you know the people around you. And I just feel that people – people should stop criticizing people who are from cities. (Post interview)

Franco positioned himself in opposition to these narratives in class contexts, and unlike Sarah he was usually willing to challenge these ideas in class. In most classes he felt that his voice was valued, and that his ideas contributed to shaping the local discourse. His participation in class discussions increased as the semester progressed, and as a result the professors and classmates often included more globally situated questions in the class even without his prompting. Overall he spoke positively about his position within the SLS.

Overall, Franco's interactions in the social space of the SLS provided opportunities for

dialectical transformation and also presented considerable barriers to change. Through

challenging the local narratives in the class contexts of the SLS, the norms were transformed in a

way that brought a global focus to the program. In most spaces in class, he felt comfortable

contributing to the transformation of the dialogue and therefore the structures through which they

all interacted. In other contexts, however, the structures of racism and xenophobia were

reproduced so strongly that he felt excluded from participation and transformative potential.

Franco's narrated dialectic. Overall, Franco narrated the process of social change for

sustainability at the global scale. Franco identified governments, large multi-national

corporations (systems) and xenophobia, racism, American consumption, and individualism

(structures) as the sources of injustice. He situated agency in large, collective groups (sometimes

in the form of a government or company) that could work to fight corruption, environmental

injustice, and economic inequity. The interaction between agency and structure took place when

large groups organized collectively to combat systems of environmental injustice, thereby

resisting and transforming structures of power that devalued the lives and health of the global

poor and the environment in which they live.

Figure 4. A visual model of Franco's narrated sustainability dialectic
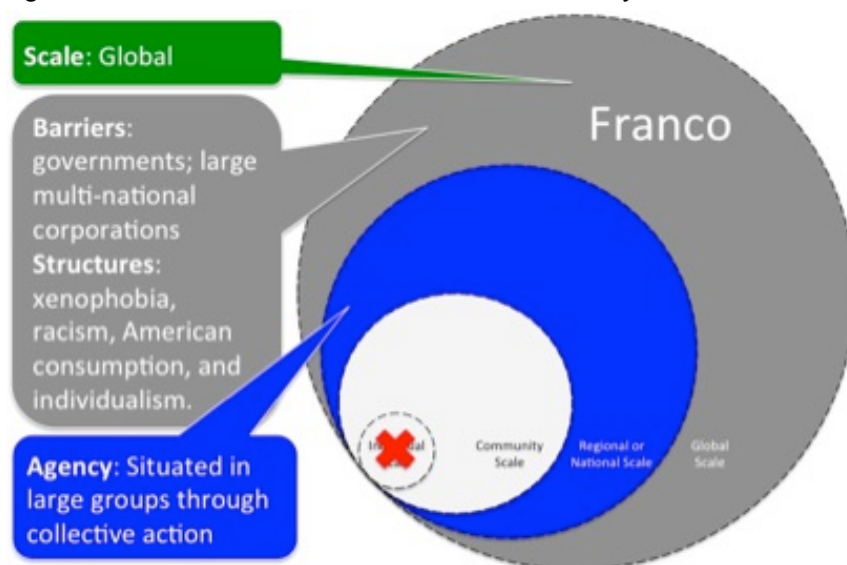
When Franco's primary experience working for change had been in an American context, he was explicitly skeptical of an individual's ability to effect change globally and even locally. His narrated dialectic contained no stories of individuals working for change. Similarly, he did not have a mechanism for how local and community efforts could be a part of large, collective action. This was reflective of his positioning as an outsider in his interactions with the local community.

Franco spent the summer after SLS in South Africa working on community projects with a group from the College. We conducted our final interview right after his return. During the interview he told story after story of success working for change in Drakensburg. He took a train every morning that he described as the most dangerous train in the country, and worked in a poor region to help community members design plans to build a local economy.

> FRANCO: So I made a list of communities that I visited and a list of problems. I basically did like a Venn diagram for mutual issues. And it all went down to unemployment. And so using that I decided to use the skills and entrepreneur workshops. And the one thing … the reason why I say it's successful is because at the end of my second workshop, the Department of Social Development come in and actually conduct a partnership with all the people who attend my workshops to create their nonprofits. They provided grants to the people who were at my workshop. And they also wanted me to work for the government. And so I got invited parliament and actually sat in parliament for a month. And I conducted workshops at the African National Congress and I worked with all … not just the religious groups, I worked with Christian leaders, Muslim leaders and other leaders, politicians. This is in my third month. So it did show that my work did end up being successful. (Delay post interview)

Franco's narrated dialectic did not change after this experience: he still envisioned effective social change happening at a large scale through collective action. However, the different context afforded him the opportunity to participate in this process himself. When he told stories from South Africa, he included himself in the dialectic. He still described the process of change at a national scale, but what changed after his visit to South Africa was that he had a more clearly articulated mechanism for how local action could be a part of larger, regional changes.

Franco revised his narrated dialectic to include a vision for how he fit into the change he wanted to see in the world. He was not afforded this opportunity in the American Midwest, where he was positioned as an outsider, and where the structures of xenophobia and racism constrained his agency in those spaces so much that he ascribed no agency to himself. After his experiences in South Africa, his narrated dialectic included a more clearly articulated mechanism for how he could participate in the process of social change at a community, regional, and national scale. In one context, the structures of power, racism, and xenophobia worked against him; in another, he was able to use the privilege these structures granted him to effect change.

Discussion

These results suggest that student positionalities in local educational and community contexts shape (a) the sustainability work they are able to do in that space, and (b) how they then envision the process of change for sustainability unfolding in other contexts across time and space. The way they narrate the process of social change in abstract is then subject to recursive revision as they are positioned differently in new social contexts and embody new dialectics. This was evident in the SLS as Franco developed a more elaborate mechanism for change at a local scale after his work in South African communities, Charlotte began to revise her interpretation of Christianity's role in American culture as a result of reading *Buffalo Shout Salmon Cry,* Amber revised her narrated dialectic when she questioned her interest to small-scale farming, and Sarah continuously revised her narrated dialectic to ensure a mechanism for the production of equitable systems at the community scale.

This means that the ways structures are picked up and transformed in local communities—civic, educational, or other—may profoundly impact how our students imagine the process of social change in abstract, and how they envision their role in that process. If they

are excluded from participation locally, their narrated dialectics may lack local mechanisms for change. If their local experiences provide opportunities for trying, failing, they may then have more opportunities to engage in the iterative interplay between their embodied and narrated dialectics. If their local experiences and privilege confirm that individuals are drivers of change in systems, they may fumble when they meet systemic barriers. This may leave them without a strategy for identifying opportunities for large-scale dialectical transformation.

Dialectics that situate agency in individuals. Charlotte and Amber both situated their own local sustainability work in the context of change of local norms, rules, and structures. Because agency was situated locally in their dialectics, when their individual actions did not effect the desired change, they interpreted this as a problem. Developing a paradigm in our field that helps students—like Charlotte and Amber who situate agency locally— examine their local work in the context of the dialectic, and to consider how structures are reproduced in communities, might help disabuse them of the idea that they, or other empowered individuals, are solely responsible for effecting systemic change for sustainability. This may help lighten the discomfort they experience in the face of failure and help them seek to identify larger, structural features of the systems they are working to change when these systems seem ossified even in the face of passionate, empowered, proactive leaders.

Dialectics that situate agency in groups. Franco and Sarah's dialectics situated agency collectively. At the time of the SLS they were both skeptical of an individual's ability to successfully effect change for sustainability. Their peripheral positioning in some local dialectics of the SLS and surrounding communities led to disengagement and low expectations. This also meant that in contexts where they struggled to participate, they lacked access to the same try-and-fail opportunities that Charlotte and Amber had. In this case, encouraging Franco and Sarah

to engage in a more systematic analysis to ensure their own participation might be insufficient.

A dialectical response: beyond individual solutions. Using the dialectic as a unit of analysis, as opposed to the individual or the system, deters the inclination to respond to these results by assigning individuals autonomous ownership of reproduction of harmful structures. It also dissuades us from assuming a deterministic stance that denies individuals located in these dialectics the capacity to transform local structures through critically reflective dialogue. The value in the agency/structure lens in this type of analysis is that it removes the inclination to assign the professors—who hold considerable power as figures of authority in the local dialectics that unfold in classrooms—a false sense of accountability, autonomy, or responsibility for the production of systems that privilege Christian, White, American narratives in the SLS. As insiders in local systems, they may not have held the vantage points needed to identify how this was happening. Through my discussions with students and observations, these were visible to me, but this was a collective effort and a function of our positionalities in the SLS. This suggests that large-scale structures inform the way education happens locally.

The focus on the interaction of agency and structure locally helps us concentrate on the systems that emerge from this dialectical interplay instead of (a) falsely isolating the individual as the source of the problem, or (b) denying the professors or students any capacity for resistance and transformation. We are not left with a conclusion (e.g., "The professors are racist") but instead a question: "How can we support educational programs that take place in predominantly White institutions develop strategies for using their positionalities in the dialectic to challenge oppressive structures and produce more equitable local systems that engender student learning and participation?"

Implications for Environmental Education

    Rethinking local. One implication for environmental educators might be to critically reflect on what "local" work means. To Franco, "localism" in general was not an effective strategy for change. He challenged this narrative in multiple contexts in the SLS, particularly at the seminary conference. From his perspective, locally bounded action might fail to identify the true drivers of inequity because local dialectics lacked the critical perspectives needed to resist the structures that constrained his work. In more specific contexts, Franco also found that he was excluded from many local dialectics in the region. Although this research does not provide evidence to suggest how to respond, it does suggest that programs like the SLS might benefit from critically reflecting on who is positioned to effectively work for change locally, and who might be excluded from local dialectics because of how they are positioned in local culture.

    Assuming that all our students have equal opportunity to engage in local sustainability work, if left unexamined, enables the leaders in these spaces to pick up structures that privilege their own perspectives. We might consider how the structures that inform the norms of engagement in those spaces (wildlands, rural communities, etc.) might exclude culturally and linguistically marginalized students from the experiences professors who design the programs might have in the same rural, wild spaces. This line of discussion is not intended to disparage place-based or local initiatives in the context of environmental education. But in this work, we need to identify whose voices are excluded and whose are included in local dialectics. In rural American spaces, the structure of pluralism may not be taken up in the sustainability dialectic in ways that promote access to participation for all students. Instead, structures of homogeneity, White supremacy, and xenophobia may be more prevalent.

Hope. Environmental and sustainability education programs commonly aim to instill in our students a sense of agency, hope and self-efficacy. Considering these findings, we might temper this goal by remembering that telling our students they can make change does not make it so. In response to these results, "Giving Franco hope" and "Giving Sarah a better sense of efficacy" would be insufficient, individual responses to a systemic problem. While we of course want to empower our students to make change, simply convincing individuals to be hopeful is not enough. Instead, we might strive to embody local dialectics collectively in a way that aims to dismantle and transform the harmful structures that engendered the lack of hope and self-efficacy in the first place. We might consider refocusing our attention on how the dialectic can be used to transform the local expression of structures in a way that creates equitable systems that ensure equitable learning.

Developing a critical consciousness. This critical analysis provides some explanatory power for how and why local dialectics produced systems that challenged learning and participation for all students. This leads to a clear need for the development of collective critical consciousness in our environmental education programs, but it doesn't provide evidence for how to do this. Critical race scholars propose multiple strategies for resisting and transforming racist structures in education and other contexts (Delgado & Stefancic, 2012; Gay & Kirkland, 2003; Solorzano, Ceja, & Yosso, 2001; Yosso, Smith, Ceja, & Solorzano, 2009).

As we can learn from the rich body of literature on the intersections of critical race theory and education, one challenge in developing strategies for critically consciousness pedagogy is that Whiteness is not always thought of as a position, an identity, or even a race (Solorzano, 1997). Simply put, "Whiteness is positioned as normative" (Ladson-Billings, 1998, p. 9), and educators who are socialized in predominantly White communities and schools have a

particularly difficult time recognizing Whiteness (Boutte & Jackson, 2013; Levine-Rasky, 2000).

Because experiencing life as a White person may create the impression that their interactions are

race-neutral, White persons may then go on to interpret others' interactions through a similarly

colorblind lens. Additionally, they may feel that color-consciousness is a racist position (Delgado

& Stefancic, 2013) and therefore actively avoid interpreting local events through the lens of race.

What are the consequences of ending this conversation about the reproduction of harmful

structures through local dialectics in the SLS? In a synthesis of documented outcomes of

colorblind approaches to teaching, Brownell and Coles (2016) have pointed to several potential

consequences: lowering expectations for students of Color; missing opportunities to leverage

students' funds of knowledge; privileging of White knowledge and ways of knowing; privileging

White perspectives on historical accounts; describing racism as a thing of the past; and

unwittingly perpetuating racial injustice to name a few.

As we respond, as Ladson-Billings (1998) has aptly cautioned, we must be careful to

avoid the inclination to solve problems that are firmly rooted in long-standing structural histories

with isolated workshops, writing exercises, or discussions. These may be pieces of the solution,

but working towards the development of sustainable critical consciousness about how we are

positioned in local dialectics and how that impacts student learning is long-term, collective work.

There is no ultimate diversity seminar. We must transgress simple celebration and appreciation

of ethnic diversity. We must go beyond positioning ourselves on the side of the "good" and

critically reflect on our roles in sustaining harmful systems.

In this particular research context, that might mean offering to engage in regular

reflections and discussions on these results with SLS faculty and students if they are willing. In a

broader context, this might mean holding sessions on racial justice in environmental education at

conferences, engaging in critical scholarship within our field, re-examining our curriculum, and sharing ideas among existing and new networks of environmental educators and scholars.

Limitations and Other Considerations

While this research suggests that reproducing dominant Christian narratives offered barriers to the learning of students who were wrestling with questions of faith, it could be that creating pluralist spaces that value the learning of students from various religious and cultural worldviews was *not* a goal of the faculty or the college in the SLS and Simons College. Multiple signs in this space suggested that Christian homogeneity as not seen as a liability but instead as an asset. While I would argue that the development of a critical consciousness towards Christian dominant narratives and privilege would be crucial in public institutions or other institutions that want to create equitable learning environments for all students regardless of religious worldview, this did not appear to be a goal of the Simons community. For this reason, this discussion focused less on religious diversity and more on racial and cultural equity.

Another consideration is that the critical analysis of embodied dialectics requires exposure of structures that are picked up by individuals and groups locally. The tensions that emerged were often most visible to me as an observer when students were working to resist these structures. This means that one might get the impression that the students, particularly Sarah and Franco, who struggled most to engage in local contexts, disliked the program. This is not true. The students spoke highly of their general experiences in the program; many described it as the most transformative semester of their college experience. However, the value of the critical analysis is to identify the structures that are often invisible, and these are revealed through conflict and struggle.

Conclusions

Our students come into environmental and sustainability education programs with a clear commitment to making the change they want to see in the world. However, when they begin to engage in local sustainability work, they meet barriers. They become frustrated. This research takes us away from the problematic question of "How much of this frustration is due to their individual selves, and how much of it is due to their context?" This research instead leaves us with new unanswered questions about what happens next: What role do we play as educators, program directors, and researchers in working to transform and produce local systems that facilitate equitable contexts in which our students conduct their sustainability work? Can we use this framework to help students engage in transformational action, targeting specific changes they want to see in social systems? Finally, how do we (as educators) help produce equitable local systems and contexts for learning that ensures participation for all students?

We might look for the interaction between agency and structure to help explain how oppressive systems developed in those spaces initially, and how they continue to be perpetuated through our local actions, even if the oppressive structures may be masked in their presentation at a local scale and therefore difficult to recognize. This may mean asking "outsiders" for help identifying the ways we, as agents, may be reproducing structures that exclude our students from full participation. This means talking openly about race, class, and dominant culture, and how these constructs are picked up locally. This means re-examining our assumptions that "local" work is the best way to make change, and consider how our own experiences lead us to advocate for work in contexts that privilege our own identities and subjectivities.

Re-framing the conversation towards a systems analytical approach (as opposed to an analysis of individual decision-making, skill, and merit) might help our students and colleagues

47

get closer to the critical analysis needed to begin working to resist the harmful structures that persist in our local spaces and keep our students from making the changes they want to see in their own lives, their communities, and the world.

CHAPTER 2

CONCEPTUAL AND THEORETICAL FRAMEWORKS, LITERATURE REVIEW

Introduction

This chapter provides an overview of the theoretical foundations, concepts, and

assumptions that frame this research. I begin with the conceptual framework, which introduces

terms that are (a) derived from my theoretical framework, and (b) used to operationalize the

theory into empirical tools for analysis. Second, I provide an overview of the theories that inform

this research: theories of learning, the agency/structure dialectic, and positioning. Finally, I

provide a review of the literature that has used the agency/structure dialectic as a theoretical lens.

Although this literature does not necessarily situate itself in the fields sustainability and

environmental education (where I find this dissertation most plainly situated), I offer this

literature review to provide examples of how researchers from diverse scholarly perspectives

have translated the agency/structure dialectic into tools for analysis of learning.

Conceptual Framework

Structure. Structure refers to abstract social norms and rules that constrain and enable

how individuals and groups act. These might include racial, cultural, gender, or class norms.

Structures are simultaneously an outcome of agency and also an element that acts upon agency.

Structure can also not be defined without including agency in its definition. The same structures

can either enable or constrain agency across time and space. Structures are invisible social

constructs which are fashioned through human activity. Institutions and policies, although

constructed through human activity, are not structures. Organizations of human activity, like

governments, are *systems* that emerge from the dialectic between agency and abstract structures.

Here I draw on Giddens's definition of structure and systems (see more in the theoretical

framework below).

Agency. Agency refers to actions of groups or individuals that are mediated through and have the potential to transform structures. Agency cannot be defined outside of structure, because it informs structures and is also enabled and constrained through the same structures it informs. Agency refers to visible actions that follow, resist, or expand structural norms. Students in this study embody agency by doing and authoring themselves in the spaces of the SLS and neighboring communities. Their visible actions – speaking, doing, etc.—are their visible performances of agency. Agency can be enacted collectively as well as individually.

Although agency has the potential to resist and transform structures, transformation is not inevitable. Reproduction of larger structures can result in local production. This sometimes makes the structures which are being reproduced locally difficult to identify because of the unique dialectics that emerge as a result of the local agency that interacts with large-scale structures. The familiarity of the local dialectic masks their presentation. Structures can also be transformed and resisted through local dialectical interplay, when agents (individual or collective) resist the uptake of those structures, or redefine them through their own interactions.

Agency has been defined in a variety of contexts by other scholars, and I am particularly drawn to the definition from Emirbayer and Mische (1998) who propose this definition:

> Temporally constructed engagement by actors of different structural environments – the temporal-relational contexts of action – which, through the interplay of habit, imagination, and judgment, both reproduces and transforms those structures in interactive response to the problems posed by changing historical situations. (Emirbayer & Mische, 1998, p. 970)

I appreciate this definition because it focuses on temporal dimensions of agency and also the fact that agency may reproduce or transform certain structures through iterative arbitration.

Embodied and narrated dialectics. I refer to the activity I am able to observe in the

SLS as the *embodied dialectic*, which draws on the concept of "embodied identities" (Tan et al., 2013). Although I do not foreground the language of identity in this dissertation, Tan's work on embodied and narrated identity, or what some have also called "identity-in-practice," (Holland et al., 1998; Wenger, 1998) has been helpful in thinking about how to conceptualize the *dialectic*-in-practice, or embodied dialectic. Tan et al. (2013) distinguish between "narrated identities" and "embodied identities" in a similar way that I distinguish between "narrated dialectics" (stories of social change) and "embodied dialectics," (visible participation in social settings). This is also somewhat similar to Sfard and Prusak's (2005) conceptions of *actual identity* (embodied dialectic) and *designated identity* (narrated dialectic).

My use of dialectic instead of identity is an effort to broaden the unit of analysis in both of my research questions to focus on interaction and process and interaction instead of individual identity. For example, I use embodied dialectic to understand the relative positioning of the students' identities and agency in the local social spaces of the SLS, and how they contribute to the systems that emerge as a result of the local dialectic. I use narrated dialectic to focus on how my participants envision or imagine the process of social change and their role in that process.

The sustainability dialectic. I use the term "sustainability dialectic" to refer to the ways agency and structure interact to effect change for sustainability. I couch this relationship in the specific context of sustainability work because the participants in this research are studying sustainability. The dialectic between agency and structure has theoretical roots in sociology. Borrowing on Giddens's structuration theory (1984), and Sewell's reconstruction of the agency/structure dialectic (1992), one foundational assumption I take is that agency and structure mutually constitute each other. This assumption precludes the examination of individual action and learning without also considering how learning is informed by context. Below, I provide an

51

overview of the theories I used to construct these concepts.

Theoretical Framework

      Theories of learning. This dissertation works from a series of assumptions about learning. These assumptions are that 1) individuals learn through doing and acting in social spaces, 2) the learning of an individual is ideally understood by considering the social, cultural, and historical context of that individual's learning, 3) the individual and the individual's community reflexively impact each other, 4) learning can be understood by observing how participation in social spaces changes over time, and 7) learning can be understood by examining how students' descriptions of their own ideas change over time.

      Educational research on learning has a history of situating the agency/structure dialectic in classrooms and educational settings. For example, John Dewey described a dialectic within classrooms which transformed larger societal structures. He argued that interactions between teachers and students had the capacity to reshape societal narratives through local interaction between agency and structure. For example, in *Education and Experience,* he wrote:

> It is the business of the school environment to eliminate, so far as possible, the unworthy features of the existing environment form the influence upon mental habitudes…. Selection is not only at simplifying but at weeding out what is undesirable. Every society gets encumbered with what is trivial, with dead wood from the past, and with what is positively perverse. The school has the duty of omitting such things from the environment from which it supplies, and thereby doing what it can to counteract their influence in the ordinary social environment. By selecting the best for its exclusive use, it strives to reinforce the power of this best. As a society becomes more enlightened, it realizes that it is responsible not to transmit and conserve the whole of its existing achievements, but only such as make for a better future of society. The school is its chief agency for the accomplishment of this end. (Dewey, 1916, p. 20)

In this model, teachers, in their critical selection of knowledge and storyline, rewrite the narratives of society. Teachers used agency to select which structures to resist and which structures to bring into the local narratives. Although Dewey did not define this dialectic in terms

of agency and structure, his curiosity about how individuals and groups could transform large-scale social structures locally positioned him as a scholar of dialectical transformation. In the following section, I examine other learning theories that share the assumption that learning and social change are intertwined, and that in order to study learning we must examine the social context in which that learning takes place.

In this dissertation, I am interested in three different forms of learning. The first is how my participants describe and narrate the process of social change for sustainability (their narrated dialectics). The second is how my participants enact agency through local structures in the SLS to work for change (their embodied dialectics). The third is in how these two dialectics interact, form, and inform each other. The relationship between these two dialectics lies in how their envisioned models of change are informed by their local experiences, and how their experiences in the SLS are shaped by the way they envision social change happening. The theories below provide an overview of some learning theories that have contributed to my own conception of what learning is and how it happens.

Learning through action.

Lev Vygotsky famously originated some of the earliest theories that characterize learning as a social process. Vygotsky was critical of other prevalent theories of learning at the time that did not take social context into account. For example, he problematized Jean Piaget's theories of cognitive development because they failed to consider how the learner's context impacted cognitive processing (Vygotsky, 1978).

My own conceptions of learning, action, and agency employed in this research have roots in the foundational ideas of Vygotsky, who wrote about how the experience of an individual is a reflection not only of the individual, but the social context in which the individual is situated. For

example, he used the concept of the "zone of proximal development" to demonstrate how learning is dependent on social interaction. Although this is a complex concept, the essence of Vygotsky's proposal was that individuals were best able to construct new knowledge with the help of peers. Together, this interaction would result in the co-construction new, shared knowledge. He expanded on this dialectical relationship in *The Problem with the Environment*:

> It is not just the child who changes, for the relationship between him and his environment also changes, and the same environment now begins to have a different influence on the child. This *dynamic and relative interpretation of environment* is the most important source of information for paedology when environment is under discussion. (Vygotsky, 1994, p. 346, emphasis in original)

According to Vygotsky, the environment was subject to change according to the actions of the child. The activity of the individual is involved in a dynamic relationship with the environment through which it is performed, and this activity is mediated through artifacts or tools available to the individual actor in her context.

   Situated learning. My conception of learning similarly draws from Situated Learning Theory (Lave, 2009), which assumes that learning is best understood through examining both the learner as an individual and as a member of a community. Situated learning theories challenge traditional notions of "decontextualized learning activity" (Lave, 2009, p. 202) in which the learner is often assumed to be an independent actor whose cognitive abilities can be measured in isolation from his/her environment. I characterize learning as a process of situated participation and interaction in social spaces which results in transformation of the individual and that individual's context, a characterization which aligns with situated, sociocultural perspectives of learning but contrasts cognitive perspectives (Greeno, 1997; Packer & Goicoechea, 2000).

   Lave's conceptualization of learning highlights the differences in the epistemological assumptions between sociocultural theories of learning and those that distinguish between

knowledge, attitudes and behavior, like those adopted by traditional Environmental Education research (Kollmuss & Agyeman, 2002). Lave finds this approach problematic: "Research on everyday practice typically focuses on the activities of a person acting, although there is agreement that such phenomena cannot be analyzed in isolation from the socially material world of that activity" (Lave, 2009, p. 201). Research that focuses on the actions in relation to an internal process of cognitive knowledge acquisition, as opposed to actions as embedded in a social world, lacks attention to how actions and the social world are mutually constructed.

In *Situated Learning: Legitimate Peripheral Participation,* Lave and Wenger (1991) distinguish between *peripheral* and *full* participation in communities as a way to characterize various modes of learning in a social space:

> Legitimate peripheral participation provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. (Lave & Wenger, 1991, p. 29)

According to their framework, newcomers to communities often engage in *peripheral* participation, where as old-timers engage in *full* participation, both of which are legitimate forms of achieving membership in a community. However, what is key about both full and peripheral participation is that participation must be legitimized by other community members to have the potential to transform local structures. Without legitimization, the actions embedded in the participation may not contribute to social change, thereby rendering that individual's actions ineffectual. In order for actions to impact a community, they must be recognized, legitimized, and utilized by community members in a way that challenges the structures, norms, and rules in that context.

In this dissertation, I am interested in two specific forms of learning. First, with relation to Research Question 1, I am interested in how educational communities (students, professors,

programs) learn to participate in local dialectics that construct equitable learning environments. For example, I ask: how do students navigate local structural barriers that prevent them from making the change they are working for in local contexts (embodied dialectic)? When they meet barriers, what do they do in response? How do they (a) inform their envisioned models based on these experiences, and (b) change their strategies for effecting change based on these experiences? Second, with relation to Research Question 2, I am interested in how students narrate the process of social change, and how these ideas change over time in response to experiences within local dialectics (their narrated dialectic).

Agency/structure dialectic. The primary theoretical frame I draw on in this dissertation is the agency/structure dialectic. Although I separate agency and structure to provide empirical power and clarity, I assume that agency and structure cannot be defined outside of each other. I also assume that research that employs this theory as a lens should aim for an analysis of the dialectic between agency and structure. A dialectical analysis pushes for an examination of how agency and structure form and inform each other, and an examination of systems that emerge from this dialectical interplay. The separation of these terms is designed to provide clarity in elucidating my framework; this separation does not support their theoretical independence.

Below, I expand on Anthony Gidden's theory of structuration, Margaret Archer's criticisms of structuration, and William Sewell's re-framing of this dialectic between agency and structure. I also consider the difference between a dialectic analysis as opposed to a dichotomous analysis, and how scale (both temporal and spatial) interplay within this framework. This section aims to explain the theoretical context from which I develop my conceptual framework (above).

Giddens's theory of structuration. Giddens's theory of structuration is most comprehensively elucidated in his books *Central problems in social theory: Action, Structure,*

and contradiction in social analysis (Giddens, 1979) and *The Constitution of Society* (Giddens, 1984). This theory complicates dichotomies between the individual and the group, the micro and the macro, and the agency and structure. Giddens theorized that these false dichotomies perpetuated problematic assumptions about how individuals interact in social contexts through time and space. He maintained that structure and agency were mutually constitutive and could not be defined outside of each other. He coined this co-construction the "duality of structure," which holds that "the structural properties of social systems are both medium and outcome of the practices they recursively organize" (Giddens, 1984, p. 25).

Structure is a medium in that it constrains agency and provides frames through which agents act, do, and perform. It is an outcome in that it is a product of the actions, doings, and performances of agents. Giddens's structuration theory draws attention to the difficulties in defining structure in isolation from agency due to the fact that structure is both a system through which agents act as well as a product of agency, and that this relationship is complicated by the times and spaces in which they interact. This duality of structure is foundational to this research.

Giddens's conceptions of structure, agency, change. Giddens devoted a considerable portion of his writing to re-defining structure. He defined structure as "rules and resources, organized as properties of social systems" (Giddens, 1979, p. 66), and then later "rules and resources, recursively implicated in the reproduction of social systems. Structure exists only as memory traces, the organic basis of human knowledgeability, and as instantiated in action" (1984, p. 377). From these definitions we can infer that Giddens did not identify structures outside of abstract "memory traces," but it is unclear from his body of work what he meant by "rules" and "resources" (Sewell, 1992). From this we can take, however, that Giddens's definition of structure was contained in the abstract.

Giddens did not include visible or tangible entities in his definition of structure. Instead, he called these "systems," which were emergent properties of the reflexive interaction of agency and structure. He defined systems as "reproduced relations between actors of collectivities, organized as regular social practices" (Giddens, 1979, p. 66), and then later "the patterning of social relationship across time and space, understood as reproduced practices" (1984, p. 377). In this framework, structure is abstract, and physical "systems" like governments, policy, and infrastructure emerge from the interplay between agency and structure (the dialectic).

Giddens focused less on agency than I do in this dissertation. For one, it is important to note that despite Giddens's insistence that agency and structure are mutually constitutive, he gave considerably less attention to defining and conceptualizing agency than he did to structure in both *Constitution of Society* and *Central Problems*. Although this may stem from his intentional stance against structuralism (which I appreciate), it nonetheless meant that his concept of agency was largely framed in terms of structure. For example, he named his theory "structuration," and the central assumption within this theory the "duality of structure," both of which use the term "structure" but omit "agency."

In terms of mechanism for change, Giddens *does* provide a weak mechanism for change, although according to Sewell (1992) this mechanism is vague and underdeveloped. Giddens included "rules and resources" in his definition of structure, and suggested that people's knowledge of structure and systems (or "knowledgability") made human agency possible and gave agents the ability to transform structure (1979, 1984). However, as Sewell (1992) pointed out, the details of this mechanism are not clearly articulated, leaving a gap in our understanding of this mechanism. Giddens provided no empirical analysis or evidence for how change actually happened. This requires creative interpretation to apply this theory towards empirical ends.

Speaking back to deterministic models of social change. Structuration theory was designed in part to speak back to deterministic theories of social change that were prevalent at the time of its conception. In *Central Problems,* for example, Giddens provided critical analyses of theories of key thinkers in the field of sociology that, from his perspective, privileged structural constraint in a way that minimized (at best) and eliminated (at worst) the role of the agent in structural transformation. These included (but were not limited to) the ideas of Karl Marx, Louis Althusser, Max Weber, and Emile Durkheim.

While the large-scale models from these theorists offered broad mechanisms for change, they left many questions about how change happens at a smaller scale. Giddens suggested that any theory of social change must consider the role of individuals, agents, and agency at even local scales. There is no room for this consideration within structuralist models (Smelser, 1973), which is one reason Giddens criticized theory in this tradition. Structures were unmovable and ossified, and reproduction was the primary mode of learning and progress.

As Weiler (1988) has noted, these deterministic models of cultural reproduction "provide no way to consider the subject as an agent of change and never provides a theory of consciousness…. [Althusser's] theory leaves no room for consideration of the ways in which individuals actually negotiate or resist imposed meanings" (Weiler, 1988, p. 8). This is problematic for anyone who assumes actors are capable of resisting or transforming social norms through means other than complete overhaul of repressive and ideological structures that are reconstructed in youth. In short, structuralists deny the possibility of resistance to or transformation of structures at spatial scales other than global or national. The level of abstraction at which these models were proposed failed to acknowledge how these structures are outcomes of agency, whereas Giddens's structuration is explicit about their pre-supposition.

Structuration in situ. Despite the global attention Giddens's structuration has received since its conception, Giddens has famously provided no direction on how the theory might be translated into a tool for empirical analysis, even suggesting that structuration should be maintained only at the theoretical level and not be used empirically: "Giddens is for the most part quite determined to restrict the insights of structuration theory to questions of ontology at an abstract, philosophical level of analysis" (Stones, 2005, p. 31). This unwillingness to direct his theory toward empirical analysis has led researchers to either translate structuration into tools for empirical pursuits on their own, or to seek other supplementary theories with more empirical power. As a result of this limitation, Stone has identified a "need for structuration case studies be framed and mediated by other approaches" (Stone, 2005, p. 8) to give the theory more empirical power in situ.

Despite Giddens's unwillingness, researchers have followed Stone's advice and applied this theory for various purposes and through various methods. For example, in *Education for the Environment,* Fien (1993) suggested that structuration is an appropriate theory to use in EE research, suggesting that structuration denies the overly-simplistic focus on either agency or structure, and instead stresses the dialectical relationship between them:

> A language of possibility in environmental education requires a social action theory for curriculum practice that does not reduce explanations of human behaviour to the dualism of individual agency (individualism) or social structure (structuralism). Giddens' theory of structuration meets this requirement… This dialectical view of the role of structure and agency in the production of human action is central to a language of possibility for environmental education in which teachers are viewed as capable of enacting their educational and environmental beliefs. (Fien, 1993, p. 118)

This interpretation of Giddens's theory is what draws me to it as a theoretical lens, which is that it speaks back to neoliberal narratives that privilege the role of the individual in effecting social change through hard work and merit, while failing to examine how agency is constrained and

facilitated by structures. Despite the gaps in Giddens's theory mentioned above, structuration at the theoretical level sets the stage for many assumptions of this dissertation.

Criticisms of structuration. Margaret Archer has offered principled criticisms of Giddens's theory of structuration. Archer (2003) argued that many theoretical constructions of the dialectic, including Giddens's, lack analytical power in that they offer vague mechanisms for the relationship between agency and structure. They assume that structures condition agents and vice versa without acknowledging the separate causal powers of each component of the dialectic.

She argued that in order to tell this story, one must examine two directions of causal powers: "Firstly, this involves a specification of *how* structural and cultural powers impinge upon agents, and secondly of *how* agents use their own personal powers to act" (p. 3). Archer then suggested that we have problematically focused too much on the former, while neglecting the second. Although this may be true in the field of sociology, I would argue that in North American narratives of environmental problems, the environmental movement has problematically focused on individual, consumer-oriented solutions to complex problems like climate change (McKenzie, Bieler, & McNeil, 2015).

Although Archer shares numerous philosophical assumptions about the agency/structure dialectic with Giddens, her criticisms mainly focus on the lack of analytical power in Giddens's theory. As mentioned above, Giddens notoriously refused to translate his theory into empirical terms. From Archer's perspective this renders them analytically ineffectual. One of the ways this weakness is observed is that structuration, in its conception of agency and structure as a duality, "provides no analytical grip on *which* is likely to prevail under what conditions or circumstances" (Archer, 2010, p. 229, emphasis in original). She argues that this lack of articulation of the mechanisms for transformation in Giddens's theory—which might include

causality and direction— leaves the theory too weak to apply analytically because it fails to differentiate between actions that may profoundly impact structures and actions that may reinforce structures. Giddens provides no guide for knowing the difference between the two.

While I see Archer's position and find her argument compelling, I do not find fault with this gap in Giddens' theory. I feel it is the job of the researcher to demarcate this type of information in her specific research context. As even Archer recognizes, the ways in which agency and structure interact depend entirely on the particular time and space in which the phenomenon in question takes place. From my perspective, Giddens's intentional vagueness with respect to mechanism, direction, and causality leaves the researcher open to identifying these mechanisms in their unique contexts, as his theory does not preclude mechanism from becoming known through empirical inquiry.

Archer also takes fault with structuration because it fails to characterize agency and structure as distinct constructs. She proposes adopting an "analytical dualism" (2010) instead of Giddens's "duality," which is inherent in what she calls morphogenetic approaches to distinguishing between structure and action. Morphogenesis, she argues, has value in that it separates structure and agency, so the framework is "not only dualistic but sequential, dealing in endless cycles of – structural conditioning/social interaction/structural elaboration – thus unraveling the dialectical interplay between structure and action" (2010, p. 228). While I appreciate her critical examination of the ways separating agency and structure at a philosophical level may provide more analytical power, I do not take fault with the conflation in abstraction.

Despite the empirical power Archer's assumptions afford, I prefer the ambiguity of the duality between agency and structure adopted in Giddens's work because it stresses an analysis of the whole instead of a quantification of each. Of course, there are times when it is clear that

certain structures are constraining or enabling actions more than others which we can point to. Similarly, we can point to times when agency has contributed to the clear transformation of structures. However, from my position it is unreasonable to expect us to be able to quantify how much of our agency is constrained by structures and vice versa.

With Giddens, I assume that agency is always constrained and enabled by structures, and that agency works within and through structures to transform, resist, and change them. This dissertation does not attempt to quantify the degree to which agency or structure act upon each other, nor does it attempt to construct an exhaustive list of each structure that informs and is informed by my participants' actions, as I assume some will remain hidden to be as an observer. However, this dissertation does attempt to describe the agency embodied by my participants in situ as well as to make visible some of the structures that interact with this embodied agency.

Sewell. William Sewell's (1992) *A Theory of Structure: Duality, Agency, and Transformation*, which retheorized the concept of structure, also contributes to my own theoretical framework. In this seminal article, Sewell argued for a clear and intentional reconceptualization of structure that removes the deterministic properties it carried in previous structuralist contexts. These undesirable properties, which arose from the use of the concept of structure in functionalist, modernist theoretical traditions, serve to minimize and even eliminate the potential for human agency to contribute to social change. This results in individuals being characterized as mere tools of the system, or what Giddens might call "cultural dopes." To speak back to this problematic definition of structure, Sewell expands its meaning to embody a dialectical relationship with agency that makes change possible.

In this reframing, Sewell (like Archer) argued that the way structure had been conceptualized prior to 1992 in social science lacked clear mechanisms for structural

transformation. Efficacy for change, from Sewell's perspective, was often problematically situated outside of the system, thereby denying potential for transformation within the system. He suggested that in response to the vague development of structure in the literature that "we adopt a far more multiple, contingent, and fractured conception of society" that "makes it possible to show how the ordinary operations of structures can generate transformations" (p. 16).

Sewell unpacked and reformulated structure further by including in its definition a relationship between *resources*—or material tools that agents employ to effect change—and *schemas*—or abstract mental models or rules that inform how agents use resources. This is Sewell's central mechanism for change in the dialectic. This allowed him to examine structure at different "depths" (or spatial scales), which I also aim to do in this dissertation. This allows him to examine different power differentials within structure, claiming that different groups and individuals, even when working through the same structures, have disparate access to resources and knowledge of schemas that renders their agentic potential inequitable and varied.

Sewell additionally makes a point to define agency as "the capacity to transpose and extend schemas into new contexts," (p. 18). Sewell's conception of agency relied on an agent's knowledge (or what Giddens might call knowledgeability) of the schemas and resources available to her. Agency, then, arises when an individual uses her knowledge of the schemas to manipulate resources in a novel context. While I find this concept of agency valuable, particularly in Sewell's insistence that agency can be collective as well as individual (p. 21), it also has limitations.

For example, how might Sewell account for what is happening as the agent gains knowledge of the schemas and learns to use the resources as tools for change? Is this learning not also an embodiment of agency? Why he allows for agency to arise from the *application* of

learned knowledge but not the construction of the knowledge itself is unclear. In this dissertation, the embodied dialectic has the potential to encompass both of these learning processes: learning about schemas and resources, and then the actual mobilization of this knowledge in new spaces to effect change (which I would also define as learning).

Macro/micro and agency/structure dichotomies (as opposed to dialectics). Some frameworks for examining the relationship between agency and structure in social change frame the problem in terms of a dichotomy (a binary) instead of a dialectic (a reflexive relationship). While the macro/micro concept is valuable for consideration of spatial scale, this approach has considerable limitations. For example, Collins (1992) argued that the macro/micro dichotomy in research was problematic because of the tendency of researchers to situate their research on either side of the dichotomy, thereby neglecting to account for the influence of the macro on micro interactions and vice versa. Collins (1992) also pointed out that adopting this dichotomy has at times led a model of macro structures as aggregations of micro actions.

For example, Homans (1958) put forth a model of social structure that he suggested could be understood through examining micro-level behaviors of individuals. Individual actions, according to Homans's theory, aggregated to constitute group social structure. This model of agency informing structure but not structure informing agency has been criticized for being uni-directional (Collins, 1992; Cook & Whitmeyer, 1992).

Giddens' articulation of the problems embedded in the macro/micro frame further delineates how this frame fails to account for the examination of dialectics that embody both macro and micro structures:

> The spatial differentiation of the micro and macro becomes imprecise once we start to examine it. For the forming and reforming of encounters necessarily occurs across tracts of space broader that those involved in immediate contexts of face-to-face interaction. (Giddens, 1984, p. 142)

Here, Giddens's reminds us that agency (and by extrapolation structure) encompasses spatial dimensions that transcend a dichotomy. Consideration of the complexity of overlapping scales, both temporal and spatial, is important for research that examines agency and structure (Bang & Marin, 2015; Emirbayer & Mische, 1998). Like Giddens noted, attending to both spatial and temporal scale complicates theories that adopt a macro/micro frame. Actions of individuals, even in a local spatial scale, may have implications for macro-scale structures later in time, and may have been influenced by local or macro-scale structures from that individual's past.

Although adopting an agency/structure frame (as opposed to a micro/macro frame) might be a step in the right direction, this still has limitations:

> Educational analyses remain divided largely into macro-level work (the study of large-scale phenomena such as social systems and national policies) informed by variants of neo-Marxism and other forms of (post-) structuralism on one hand, and micro-level work (the study of small-scale phenomena such as case-studies of individual schools or specific instances of teacher-pupil interaction) which draws on symbolic interactionism and phenomenology on the other. (Shilling, 1992, p. 69)

Shilling's interpretation explains how research tended to organize itself along a binary, which shows how using the concepts of agency and structure within empirical research created a false dichotomy. He suggested that distinguishing between structure and agency falsely assumes that human action exists at different "levels," which "makes it difficult to conceptualize change as a dynamic process involving both structures and human agents" (Shilling, 1992, p. 70). He further suggested that structuration theory, in its commitment to the co-constitution of agency and structure, is an appropriate response to this problematic dichotomy that assumes agency and structure operate on different levels and hierarchies within society.

Scale. I agree with Sewell, Giddens, and Archer that structures have the potential to be transformed in every time and space, even at micro spatial and temporal levels. However, I also

assume that structures are more difficult to change as spatial scale increases. Local scale transformation of structures is possible, even if these local transformations do not effect large-scale change immediately. For example, during a class on Ethics and Eco-justice, a class may succeed in transforming how members of their local cohort think about the Syrian refugee crisis or U.S. immigration policy. This might in turn lead to action to transform local structures that constrain how local citizens interact with immigrants, although this transformation may not have identifiable causal transformative power on the structure of xenophobia at a national scale.

One way I use scale in this dissertation is by identifying where my participants situate agency in their narrated dialectics. For example: do they situate agency at an individual scale, community scale, national scale, or global scale (or a combination of these)? When they narrate the process of social change, are the agents (a) individuals working for change in a local context, or (b) collective groups working to change global policy? Spatial scale also comes into play in this research because it complicates how we are able to observe, describe and understand mechanisms through which agency and structure interact. For example, there are some large-scale structures (e.g., xenophobia) that are national in scale but interact with agency in diverse ways at in a local community. Agency enacted at a local scale has the potential to transform how large-scale structures are expressed locally, thereby transforming the structure's overall expression to some degree.

Temporal scale is also important to consider. Like Emirbayer and Mische (1998), I acknowledge that agency is temporal in nature. Considering the temporal dimension means that transformations that result from actions may not always be observable until later in time, and even then the results of these actions may not be knowable through observation. I similarly assume that agency is inevitably influenced by actions and interactions from the past. These past

actions were constrained an enabled by structures, and it is difficult at best (and impossible at

worst) to know with certainty which structures from the past serve to influence the embodied

dialectic I am able to observe in the present, to what degree they influence this agency, and to

what degree agency influences the structures present in that space and time.

Although Giddens's stance that the agency and structure are inseparable theoretically is

important, it lessens the dialectic's analytical power by blurring the boundaries of agency and

structure. The definitions of agency, structure, and the dialectic in this research have been

formulated specifically to increase their empirical accessibility, while attempting to remain true

to the assumption that agency and structure mutually constitute each other in theory.

Positioning. I describe my participants' participation in the local dialectics of the SLS in

terms of positioning. Positioning theory has roots in cognitive psychology of social action, and

comes from a tradition that is more closely aligned theoretically with cognitive perspectives on

learning (as opposed to situated perspectives of learning). Use of positioning theory in this paper

is designed to help describe how my participants' actions situate them in relation to other

participants and the sociocultural history of the SLS as the local dialectic unfolds. Positioning

theory makes the agency/structure framework more powerful empirically because it provides a

mechanism for "locating" the participants within the dialectic.

Positioning theory uses language of location to describe an individual's learning and

development in social contexts. This location refers less to their physical location in a setting,

and more to their discursive and subjective positioning:

> The concepts of "position" and "positioning" have been introduced as general metaphors
> to grasp how persons are "located" within conversations as observably and subjectively
> coherent participants in jointly produced story lines…. Adopting a "position" involves
> the use of rhetorical devices by which oneself and other speakers are presented as
> standing in various kinds of relations. These include relations of power, relations of
> competence…relations of moral standing…and so on. This every position exists only as

the reciprocal of some other position. (van Langenhove & Harre, 1995, p. 362)

Positioning theory is valuable as a theoretical tool in this research for a few reasons. First, the reciprocity of the concept means that an individual's participation and actions in a space are always at least in part defined in relation to others (van Langenhove & Harre, 1991). This denies the idea that individuals have ultimate control of their identity performances across social spaces. Identity performance is relative. While our individual subjectivities are indeed our own, we perform them through the social constructs present in that space. How one positions oneself and how one is positioned by others can explain how some actions (but not others) are legitimized in spaces. This positioning can be a result of both conscious and subconscious actions.

Second, positioning implies a flexibility across spatial social contexts and temporal scales. It assumes that one's subjectivities and identities might be legitimized and performed differently across social spaces, or differently in the same social space at a later point in time. Therefore, how we are positioned by others and position ourselves contributes to the "story-line" that emerges from a particular social space, but we can reposition ourselves as contexts change over time. Our positions can be negotiated and challenged (Harre et al., 2009; van Langenhove & Harre, 1991) to align with or resist local structures that are picked up through local dialectics.

In a study of how youth position themselves in relation to the field and practices of science through talk, Rahm (2007) found that students were able to construct new figured worlds where they could be positioned differently. This use of talk to construct new imaginaries is a nice example of a dialectical analysis that uses positioning instead of identity. Building on these results, I assume that in different social contexts, my participants may position themselves and may be positioned differently. This repositioning might result in the transformation of their dialects, both embodied and narrated.

Felicia Moore Mensah (2012) has also argued that that positionality can serve as a means of enriching analyses of identity. This is because positioning considers the individual's relationship with respect to others in a social space, and helps examine how intersectionality interplays in different spaces. Although Mensah does not argue that we avoid the language of identity (she makes the case here for use of "positional identity"), I agree with her stance that examining how students are positioned by norms, structures, and other individuals as well as how they position themselves in social spaces lends itself to a dialectical interpretation.

In the context of the SLS, positioning is used as a theoretical lens for explaining students' participation in local, embodied dialectics. Agency (as enacted collectively and by individuals) picks up and works through norms and structures. This dialectic produces systems of interaction that legitimize some actions over others; some modes of participation over others; some ideas over others; and some bodies over others. Positionality, then situates the students in these interactions: how do local dialectics legitimize their ideas? Which subjectivities do they use to position themselves within the group? Do they align themselves with the prevailing story, or do they position themselves in opposition to the dominant dialectics?

Describing how they are positioned demands attention to how their unique identities and subjectivities are situated in a collective social context. This provides a bridge from the study of the individual to the study of the individual interacting in a socially constructed environment. Although some scholars have aptly pointed to limitations of positioning theory (Herbel-Eisenmann, Wagner, Johnson, Suh, & Figueras, 2015; Olitsky, 2006), I find this theory sufficient as a supporting feature of the more central theory of agency/structure in this paper.

Review of Literature

This section provides examples of how contemporary researchers in a variety of fields

and disciplines have operationalized the agency/structure dialectic into an empirical tool for analysis of learning and social change, with attention to how they characterize the dialectic, the terms they use, and the variations they adopt and blend with the dialectic.

Science education. In a position paper in a special issue of the *Journal of Research in Science Teaching* focused on the agency/structure dialectic in science education, Gutiérrez and Calabrese-Barton (2015) described the value of the agency/structure dialectic as a means of directing the educational research community away from a deficit model of children that need remediation and instead towards a more complex analysis of systemic structures. This analysis is important because it exposes how systems must be reorganized in order for children from non-dominant sociocultural backgrounds to succeed in knowing and doing science. The value of the agency/structure dialectic, they argue, is in its attention to larger transformation which involves various agencies, action, and identities in educational spaces. Although they see potential with this framework, they also identify limitations, suggesting that "the structure-agency dialectic, as it has been theorized, does not account for the complexities of the real-world struggles that make up life in classrooms and communities," (p. 575) and that the field requires a "more expansive approach to making sense of the structure-agency dialectic" (p. 576) to realize its potential.

The authors categorize the approaches in the special issue into two groups. The first of these, "pedagogical and social imaginaries," stresses the potential of the agency/structure dialectic to challenge deficit models of science learning, and to shift the focus of analysis away from remediation for students towards a systematic analysis of structures in schools that hinder transformation. They also challenge researchers to use the framework to envision or imagine expansive spaces that challenge current structures, instead of using the framework only to identify contradictions and local struggles, which is limited in scope and scale.

71

The second affordance of the framework as described in the special issue, according to the authors, is the attention it can bring to power and positionality, which helps us understand how students and teachers negotiate their agentic potential to identify opportunities for transformation in the structures through which they engage in science teaching and learning over time and space. The limitation here is the risk that agency/structure frameworks focus too heavily on structures as a constraint— almost like that of a structuralist framework— which diverts the analysis away from dialectical transformation and towards a story of reproduction.

This review points to the need for any research that uses the agency/structure framework to highlight the dialectic in its specific research contexts, and to use the framework to expose opportunities for transformation afforded through this dialectic. This might mean avoiding a dichotomous approach which would privilege either agency or structure, and which might fail to identify occasions of metamorphosis or potential of new imaginaries. This perspective also points to the importance of studying the properties of learning that emerge from this dialectical exchange, and to remain committed to the mutual constitution of agency and structure in any context in which individuals are working for change.

In another article from this issue, Bang and Marin (2015), construct a framework for the agency/structure dialectic that allows a focus on how resistance to dominant, colonialist ways of knowing can shift time-space relationships and offer possibilities of new futures. The authors draw on a combination of theories of decolonization and Giddens's conception of "structural principles" as emergent properties of the dialectic. These concepts are then used to explore how Indigenous students and their parents "desettle" normative structural principles through naming and using Indigenous ways of knowing in outdoor, informal science contexts that are normally dominated by White, settler ways of knowing.

I find Bang and Marin's (2015) attention to the time-space relationship in this research important mainly because their treatment points to a challenge in asking how interactions in a specific time and space can disrupt social norms that span across spatial and temporal scales. The authors provide evidence for how the students, in their use of the Menominee language, challenged the erasure of Indigenous ways of knowing that were established via Colonialism. This evidence shows how past narratives were desettled in the present, but cannot necessarily demonstrate how the "structural principles" of colonization might be transformed in the future, nor does it try to. This article (and others in this issue) respond to this limitation by instead identifying the potential for transformation across time and space that would not be possible without local-scale resistance to hegemonic, colonizing narratives.

Band and Marin's (2015) attention to time-space is relevant to this dissertation in two ways. First, these authors examine interactions at a specific space and time as a means of showing how these interactions allow for the imagining of new futures and narratives. Similarly in my dissertation, I tell stories of my participants' narrated models of social change, and how their imagined futures provide possibilities for transformation. Second, due to the temporal scale of the research, the authors do not provide evidence for how the imagined futures that were created through these interactions played out. In contrast in this dissertation, by participating in the SLS as a participant observer, I was able to watch how students constructed these imagined futures and how they additionally entered these futures, thereby ideally allowing for a story of transformation over the time of the semester.

In the same issue, Varelas et al. (2015) conducted a dialectical analysis of agency and structure in an early childhood science student's agency and identity work. They show how Carlos, one participant, worked through the structure of a read-aloud activity with his classmates

73

to co-construct knowledge, thereby changing structures that informed the read-aloud itself. The authors point out that although the social norms of interaction indeed constrained the ways students enacted agency collectively and as individuals within those spaces reshaped the knowledge structures, current and future.

This article is particularly relevant to my research because the authors' interpretation of the structure-agency framework aligns considerably with my own. First, the authors build on Giddens's and Sewell's conceptions of the dialectic, which I adopt as well. From my perspective, the assumption that agency and structure are co-constructed pushes the research towards a more dialectical analysis, which I think these authors achieve.

Second, they identify different forms of participation, or diverse ways Carlos embodied agency, asserting that agentic manifestation is multi-faceted in space and time. For example, they explore how different curricular systems within the classroom—read-alouds, hands-on explorations, and literature circles—provided Carlos with different tools to facilitate his performance in those spaces. This highlights how even changes in local-scale structures can differentially hinder and facilitate diverse agentic expressions. They also identify how local structures were expanded (or transformed) as a result of Carlos's knowledge construction in those spaces, thereby acknowledging Carlos's ability to transform structures in the present: "what Carlos and other students did with those structural rule-resources changed what resources were available" (Varelas et al., 2015, p. 526) and the future, "as students participate in new ways, they changed the structuring possibilities for future participation" (p. 526). I also share Varelas et al. (2015)'s commitment to paying "attention to identities and identifications in both *performed* and *narrated* contexts" (p. 518, emphasis in original) in research that uses the agency-structure dialectic.

Carlone et al. (2015) use the language of *identity performance* in their contribution to the special issue on the agency/structure dialectic. Building on Judith Butler's use of performativity as identity, this research examined the identity performance of elementary and middle school female students over four years. The authors found that the students successfully constructed new and unique learning norms by working in the "cracks and fissures" of the social structures in their fourth grade science class. However, in other classrooms with different norms, the same identity performance met structural barriers that stifled the performativity's potential for genuine learning. This analysis highlights how dependent the dialectic is upon the various agencies and structures present in a given time and space; simply examining the participant's learning or identity without attention to how settings impacted their performativity would not have yielded such rich interpretation of the students' challenges over time.

Olitsky has also used the agency/structure dialectic as a tool for empirical analysis. For example, in her article *Structure, Agency, and the Development of Students' Identities as Learners,* Olitsky (2006) uses the dialectic to examine how students construct identities as learners in secondary science classrooms. She found that dominant discourses positioned students in two distinct categories: college-bound or not. Her analysis revealed that some students were able to re-author themselves by actively resisting their positions as non-college-bound students, thereby expanding on the limited positionalities offered by those who ascribed to the dominant discourse of school (e.g., teachers, students).

These actions resulted in the construction of new student identities and shaped the environment through the creation of new positions and imagined futures: "In directing her talk toward a more positive self-definition in the face of limited subject positions, she is also on the way toward envisioning a more just world in which there are more options for her family and

herself" (p. 764). Olitsky's focus on how the students used agency to resist and transform structures is valuable to this dissertation, as I am also interested in how my participants embody agency in local contexts, and how they learn to transform structures that cause systemic barriers.

Olitsky has also used the agency/structure dialectic as an analytical tool by employing Archer's talk and internal dialogue as a mediating factor between agency and structure (Archer, 2003). For example, in a case study of two teachers reflections on self-talk and teacher identity, Olitsky (2015) found that teachers considered a range of scales when authoring their own identities. One teacher interpreted her own teaching as including self and students, while the other teacher "place[d] these interactions in a broader context." (p. 17).

The teacher who placed his practice in a broader context had a larger suite of interpretive tools to draw from to understand and analyze his own struggles. The broader context enabled him to identify some structures that constrained and enabled his own actions. The teacher who focused on the teacher-student relationship became frustrated with her lack of ability to make the change she wanted to see. In conclusion, Olitsky suggested that teachers who are able to take a step back and look at the structural sources of their frustrations in teaching as opposed to seeing students a problematic or needing to be "fixed" were able to be more empathetic towards students and themselves. Olitsky's use of scale and also her consideration of future possibilities afforded by the agency/structure dialectic is notable here.

In another study, Olitsky (2007) used the agency/structure dialectic to examine how large-scale structures and systems— social norms and school policies—inform local classroom talk. This points to the importance of examining how large-scale structures impact local interactions, and also how local actions can serve to transgress how large-scale structures are expressed locally. To demonstrate this, Olitsky shared a vignette about how science students

authored themselves using the language of science. They used this discourse when it could be leveraged as a tool for building relationships and solidarity with their peers, although at times neither the teacher nor classmates legitimized their discourses. Olitsky's unit of analysis in this vignette was the "interactional situation" (p. 50), not the students or the classroom. This enabled her to show how the structures in place interacted differently with different agencies, creating a discursive context unique to the agents and structures present at that time and space.

Many researchers in the field of science education have explored the agency/structure dialectic through identity through research about how students' author and position themselves in social spaces as a means of transforming structures. Although I do not use the language of identity construction, the methodology, design, and outcomes of the field of identity research speak considerably to my own. Varelas (2012) synthesized a variety of perspectives on using identity as a lens for examining how individuals are transformed by and transform the social spaces in which they interact in *Identity Construction and Science Education Research.*

In this volume, Carlone (2012) suggested that studying identity construction is a way of integrating the dichotomy of agency and structure by focusing more on the interplay of self in structure as opposed to simply how structure impedes on agency or how individuals behave and learn in isolation from macro structures. She points out that identity research prior to 2012 lacked a mechanism for examining dialectical interplay: "science education needs more accounts of the ways group-level meanings—heavily influenced by larger social structures, history and politics— emerge and enable and constrain individuals' subject positions" (p. 11). She suggests that we may be successful in shifting from units of analysis as individual students and student learning toward units of analysis as group norms and interactions by asking research questions that allow for the identification of meaning in interactions across time and space.

Research from Brickhouse, Lowery, and Schultz (2000) is another example of scholarship that uses social identity to describe the dialectic. The authors choose *social* identity instead of identity because social identity "accounts for the importance of both individual agency as well as societal structures that constrain individual possibilities" (p. 444). This research presented case studies of four female science students' identities across eighteen months. Results suggest that in order to understand how girls' identities might contribute to success in science we must consider the diversity of social identities that are performed by different students. Although this framework uses the language of social identity to explain how identity is constructed in convergence with context, the research does not attend to how identity simultaneously reinvents the structures through which the identities are developed, focusing less on the dialectical interchange and more on the directional causality of structure on identity formation.

Gutiérrez et al. (1999) have used the theory of hybridity and hybrid spaces to describe the interplay between agency and structure across time and space. Hybridity, which the authors describe as a process of social and discursive negotiation that occurs "where cultural and linguistic practices, histories, and epistemologies collide" (1999, p. 288), offers a different way of describing the dialectic of agency and structure. Hybrid spaces, or social zones where discursive structures intersect with subject identities, are the units of analysis. Here, the authors use hybridity to explain how students' and teachers' language practices combined in a third (or hybrid) space to construct a new mode of interaction. Talk (or language) was the mediating factor in the dialectic, which is similar to Archer's (2010) use of internal dialogue as a mediating factor between agency and structure. Although the authors focus on identity (as opposed to agency), this research has clear implications for my own in that it examines dialectical change.

Building on the theory of hybridity and identity negotiation, Tan and Calabrese-Barton

(2009) studied how middle school science students' strategic use of funds of knowledge and Discourses to transform the social structures in science classrooms. These hybrid spaces became sites where individuals' identities interacted with discursive structures to reinvent how action and interaction unfolded. The authors draw on the language of identity construction, discourse, and hybridity to describe the transformation that took place in their research, whereas I opt for the language of positionality, agency, structure, and dialectic.

Some authors have pointed to the limitations of using identity as a framework for examining the agency/structure dialectic. For example, Shanahan (2009) has suggested that although "most studies of identity have recognized that identities do not exist as isolated constructs in the minds of individuals," (Shanahan, 2009, p. 44), most research in the field of science education has focused on "individuals, their actions, and their agency" (p. 44) at the expense of consideration of structures needed for a truly dialectical analysis.

Environmental education. Whereas the field of science education has often turned to identity construction as a tool for understanding the agency/structure dialectic, the field of environmental education (EE) has a history of examining *behavior* as a means of understanding how individuals and groups work for transformation of structures.

This dissertation is most closely situated in the fields of environmental and sustainability education because of the context. While the field of science education has developed a diverse body of literature in both theory and methodology, environmental and sustainability education have yet to achieve the same breadth (Dillon, 2014). Dillon (2003) noted this contrast: "Compare the situation in EE with that in science education, where learning theories are much more part of the discourse of significant numbers of researchers" (p. 217). While this leaves a welcoming gap for the research outlined in this dissertation, it also provides fewer models of research that have

characterized student learning as participation in a community in the field of environmental and sustainability educational contexts.

Environmental education research on learning has problematically had an overemphasis on "what people know" and "what the links are between what people know and what they do in terms of environmentally friendly actions" (Dillon, 2014, p. 498). Instead of developing diverse theoretical approaches towards learning, researchers have focused primarily on looking for links between environmental knowledge and pro-environmental behavior (Gough, 2013), despite assertions that this is problematic because of the multiple and complex factors that influence environmental behavior (Kollmuss & Agyeman, 2002, for example). This research has been "critiqued for their individualistic assumptions about social change, and a failure to address structural underpinnings of existing practices" (Lotz-Sisitka, Fien, & Ketlhoilwe, 2013, p. 196), and for the focus on individual action and exclusion of consideration of how actions impact and are impacted by sociocultural, structural, and institutional contexts (Robottom & Hart, 1993).

In an overview of research on curriculum and learning, Lotz-Sisitka et al. (2013) also suggest that in addition to narrow research goals, this literature also suffers from fairly limited and narrow theoretical and methodological perspectives, relying too heavily on positivist, quantitative studies. In a meta-analysis of research on learning and learners in EE, Rickinson (2001) similarly described EE learning research as having "methodological uniformity" (p. 306) and requiring a "deeper level of empirical investigation" (p. 307). Characteristics of this methodological uniformity include, for one, that researchers have mainly relied on quantitative surveys and pre/post assessment that measure environmental content knowledge and have forgone consideration of how context informs knowledge and action.

He also pointed out that EE learning research often fails to take learning contexts into

account, prioritizes knowledge and attitudes over experience, prioritizes outcomes over process, and lacks connections to learning theories that might be used to shape the research design and interpret findings (Rickinson, 2001). Later, Rickinson (2006) further added that research in environmental learning often characterizes learners as passive receivers of an intervention that is the cornerstone of the research, denying attention to the process and experience of learning.

Dillon (2003) suggested that this dominant paradigm in EE research might be explained by examining the academic contexts in which early EE research was embedded: "Much early writing on EE emerging from the US in the 1970s and 1980s… can be appreciated more clearly when one understands the dominance, at that time, of behaviorist models of learning" (p. 216). Others suggest that this limited range of theoretical and methodological foundations might be due to EE's peripheral status in relation to mainstream educational research. Research in EE developed an early intellectual and academic identity by taking a critical stance towards the reproduction of culture and knowledge by formal educational institutions. This positionality could have unintentionally lead to lack of exposure to more diverse methods for empirical investigation of student learning (Lotz-Sisitka et al., 2013). The development of this methodological narrowness is ironic, considering that EE's early perspectives aimed to speak against traditional models of teaching and learning they deemed too narrow already.

Although these positivist, reductionist, and behaviorist models of learning are still prevalent in EE literature, they have received notable criticism (Robottom & Hart, 1993), which has lead to an interest from many researchers in expanding the field's theoretical repertoire. In response to this methodological uniformity, many researchers (Dillon & Wals, 2006; Hart & Nolan, 1999, for example) have called for an expansion of theoretical and methodological frameworks in EE learning research. More specifically, Meyers (2006) and Gough (2013) have

called for and increase in postmodern, critical, feminist, qualitative methodologies to speak back to this early trend. Dillon further (2003) suggested that one way of expanding this traditionally narrow focus might be to employ learning theories that take context into account.

When EE research *has* focused on participation in a community (theoretical perspectives more aligned with this proposal), it has often maintained the problematic focus on individual actions without considering the cultural and contextual structures that also influence the individual's participation in those settings (Lotz-Sisitka et al., 2013). Additionally, Corcoran, Walker, and Wals (2004) noted that when qualitative case studies have been employed, these often lack the theoretical and methodological rigor to advance our understanding of learning.

In the *International Handbook of Environmental Education Research,* Lundholm, Hopwood, and Rickinson (2013) provide an overview of research on student learning in the field of EE. The authors point out that learning-focused research has been largely underrepresented in the literature until just recently, and that the collection of research available is still relatively limited, particularly in informal settings. However, the studies that do exist share certain characteristics: 1) learners are conceived of as active participants in their learning, 2) learning is characterized as a process, not a set of outcomes, and 3) qualitative, case study approaches are employed. Following these trends, this dissertation (a qualitative case study) conceives of the learners as active participants in their learning through a process.

Although not using the language of agency and structure, there is a collection of EE research that examines how actions in a community contribute to change and transformation for sustainability, and how these actions are constrained by the social structures in that context. For example, Krasny and Tidball (2009) used a resilience systems framework to examine how urban gardening initiatives in various local communities transformed physical spaces as well as

attitudes of community members towards gardening. They demonstrate how participatory learning can produce new and more resilient social systems (e.g., gardens, relationships), perhaps due in part to the "nested feedback loops" that resulted from the specific community organizing and action that emerged in specific contexts.

David Greenwood has written extensively about the importance of place-based research in EE (Gruenewald, 2003), which is another example of scholarship that demands attention to how physical structures and the Discourses associated with place can constrain and enable action for sustainability and the environment. For example, in a review of place-based environmental education in the *International Handbook of Environmental Education,* Greenwood (2013) demonstrated that EE literature that has examined place-based learning has defined place in various terms (e.g., geography, culture, natural history). Greenwood argues for the future of EE research to conceive of place as a more holistic structure that encompasses social, ethical, and ecological aspects together, considering how all of these components of place contribute to our understanding of the ways action and social change happen in specific spaces. This dissertation assumes that place is important, but also assumes that agency interacts with some structures that transcend the local geographical space of the Sustainability Leadership Semester.

Despite the evidence of methodological narrowness in EE learning research, some researchers are beginning to experiment with more progressive research agendas, many of which include examinations of individual students as they relate to their sociocultural and socioecological contexts (Dillon, 2014; Greenwood & McKenzie, 2009; Hart, 2013). Hopefully the research outlined in this proposal will contribute to this increasing expansion of theoretical and methodological perspectives in the fields of environmental and sustainability education.

Environmental sociology. Researchers in the field of environmental sociology also offer

contributions to our current understanding of action to effect social change for sustainability. They do this through the consideration of how context contributes to outcomes. This literature examines the mechanisms of social change through environmental movements at a large scale.

For example, Greider and Garkovick (1994) have suggested that in order to understand the impacts of individual actions for environmental change, it is important to also examine the context in which the individuals construct meaning, and how their actions impact the structures in which they are performed: "Thus it is not the environmental change per se, but the meanings of that change that are negotiated within and between groups of people, that result in socio-cultural outcomes" (p. 9). Similarly, Dietz and Rosa (2002) have contributed to the agency/structure dialogue by stressing the importance of including contextual elements in research on how individuals participate in environmental movements: "one useful way of conceptualizing the problem is to begin with individual action and successively examine ever-broader contexts in which the action is embedded" (p. 379). These two perspectives point to the importance of considering the contexts participants move to after the Sustainability Semester and how the dialectic changes in future spaces. Klineberg, McKeever, and Rothenbach (1998) wrote that "the complex relationship between attitudes and their behavioral manifestations is well known to be mediated by structural constraints and resources availability" (p. 738). Klineberg et al. (1998) focus on available resources as limiting factors in determining the range of behaviors available to an individual.

Other research stresses the importance of considering context when pinpointing predictors of success in environmental movements and activism. In order to understand both the motivations for and also the potential impacts on environmental activism, it is crucial to examine the movement's unique social and political context. For example, Mertig, Dunlap, and Morrison

(2002) examined the variation in the environmental movements of the US, dividing the movement into three broad generations: *conservation* (characterized by focus on Pinchot-era focus on efficient use of natural resources and associated with anthropocentrism and materialism), the *environmental movement* (characterized by the post World War II surge of activism and national legislation and associated with education, affluence, and urbanization), and *ecologism* (characterized by a more contemporary eco-centric approach and associated with the intersectionality of social and environmental concerns).

Mertig et al.'s consideration of how grass roots movements vary across political cultures is relevant to this research because it suggests that any examination of environmental action and its potential for structural change must be accompanied by a consideration of social and political context. Mertig and colleagues also suggested that in the US, grass roots organizations often form because the political structure is too large and ossified to effect large-scale change.

A multiple-country comparison of environmental movements from Longhofer and Schofer (2010) provides further comparative opportunities, this time between industrialized and non-industrialized countries. This study aimed to complicate some of the prevalent claims about environmental movements that are based on evidence from only Western, industrialized countries. While Mertig et al. (2002) characterized the US environmental movement (particularly in the earlier generations) as being associated with higher levels of education, this is not the case for non-industrialized countries. This research points to the importance of considering how being situated in a Western, industrialized country might determine the tools available to students during and after SLS, as well as the practices they engage in.

Dryzek, Downes, Hunold, Schlosberg, and Hernes (2003) also argued that relying on universal models of social change is insufficient for characterizing the variation across time and

space, and argue that social movements evolve variably in the presence of different imperatives. Their case studies of organizations across countries suggest that "the form taken by a country's environmental movement and its relationship to the state…is framed (though not completely *determined*) by the structural characteristics of the state" (p. 21, emphasis in original), and when social movements do go through changes, it is largely in response to changes in the state.

Overall, this literature points to the importance of examining individual, institutional, cultural, political, and geographical contexts in any discussion of agency and structural change in collective or individual work to effect change for sustainability.

Limitations

Numerous scholars have pointed to the challenges and limitations in using an agency/structure dialectic as a theoretical lens for research. Shanahan (2009) has pointed to the tendency of researchers prior to 2009 to use various frameworks to support agency/structure dialectic work to focus too heavily on the individual, thereby back-grounding the structural components of the individual's participation in the community and the structural transformation that results from that participation. However, the author does point out that these frameworks have the potential to attend to social structure.

Similarly, Gutiérrez and Calabrese-Barton (2015) have pointed to a tendency to use the agency/structure dialectic as a lens in a way that limits possibility and undermines equity. Too much focus on structural limitations, for example, may serve to deny an individual the potential agency to reconceive of structures in a way that enables change. The authors suggest using "pedagogical imaginaries" as a means of ensuring the possibility for transformation.

Gutiérrez and Calabrese-Barton (2015) also noted that researchers must engage in a critical assessment of what we mean by both agency and structure, particularly with our attention

to temporal and spatial scale. I take this assertion to mean that interactions between agency and structure in one time and space— the dialectic we observe as researchers— should be described simply as one piece of a recursive, iterative, expansive web of interactions that (a) creates new possibilities for dialectical interchange in the future, and (b) allows for the possibility of different dialectical interchanges at different spaces in which different structures and agencies interact.

Carlone (2012) pointed to the challenges of identifying hidden structures in ethnographic research that examines intimate interactions of groups over time: "those who have been most oppressed by racist, masculinist, straight, Eurocentric norms are more likely to see taken-for-granted norms that reproduce inequity" (p. 23). This means that as a White, gay, woman, for example, I may be more likely to identify sexist and heteronormative structures than I might Eurocentric or racist structures. The author suggests that researchers practice questioning how their own ways of knowing may privilege their ability to see some structures over others.

Finally, Rubinstein (2001) has pointed out that structural analysis is difficult because of the variety of interpretations of what constitutes "structure," many of them being vague: "There is a striking degree of obscurity and confusion over a concept that is widely regarded as defining the sociological perspective" (p. 2). He wrote that even Giddens and Sewell agree that structure is often ill-defined, which poses a challenge for any research that aims to define and use structure as part of its framework. Similarly, *agency* and *dialectic* have been defined with varying degrees of clarity across fields of literature (Emirbayer & Mische, 1998). In using this framework I risk alienating those in both sociological and educational fields by defining agency, structure, and the dialectic in terms designed specifically for this research that may not align with their theories.

In response to these limitations, I offer these considerations. First, because the agency/structure dialectic that I adopt builds on situated perspectives, I aim to privilege neither

individual nor structure in the analysis, but to focus on the dialectical transformation. Conducting four embedded case studies within the larger case of the SLS demands certain attention to the subjectivities and positionalities of my participants, but it is my intent to focus on the dialect and their positionalities within in as opposed to the isolated individual or structural transformation. Second, my goal is not to draw clear boundaries around agency, structure, and dialectics. Instead, I use these tools to draw attention to how the interchanges I am able to observe contribute to a larger web of time and space that encompass my participants' life-worlds and imaginaries.

Research Questions

The theoretical foundations above led me to the following research questions, which are designed to help conduct a dialectical analysis of the learning and experiences in the SLS.

1. How do participants embody the sustainability dialectic in the local context of the SLS?

    a. How do students position themselves and how are they positioned in the local context of the SLS?

    b. How do students work for change for sustainability in the local context of the SLS?

    c. In what ways are participants' local enactments of agency constrained and enabled by structures?

2. How do participants narrate the sustainability dialectic?

    a. What is the change for sustainability students want to see in their own lives, communities, and the world?

    b. How do students describe the process of change for sustainability at multiple spatial scales?

    c. Where do students situated agency within their narrated dialectics?

    d. What barriers to change for sustainability do students identify in their narrated

dialectics?

3. How do students' embodied and narrated dialectics change over time?

   a.   What components of their embodied and narrated dialectics remained stable, and

      which components changed?

   b.   What is the relationship between the embodied and narrated dialectics?

CHAPTER 3

METHODS AND ANALYSIS

Researcher Identity Reflection

This reflection is designed to explicate my subjectivity as a researcher, to explain how and why I came to ask these particular research questions, and to give the reader context for understanding the ways my identities and positionalities in this research space informed the design and analysis of this dissertation. It is my position as a researcher that being transparent about my positionality will allow the reader to consider how his or her subjectivities might allow different interpretations.

My research questions. Before coming to graduate school I was a K-12 teacher in China for seven years. After developing an interest in environmental education working with urban gardening in my Shanghai elementary school, I returned to the US for graduate school to become a better teacher. I intended to return to China to continue teaching. One reason I stayed in graduate school instead of returning to China to continue teaching was because I discovered I loved using research to answer questions I have about the world.

Much of my research is guided by a long-standing interest in understanding how humans, in local and global communities, will respond to profound existential threats like climate change. To me this is a question of social justice. The populations in the world who will suffer disproportionately from the impacts of climate change are the global poor, the global South, and among those groups: people of Color, women, and children. How can we use education, teaching, and learning to help construct socially and environmentally just neighborhoods, classrooms, schools, communities, and societies? This dissertation is a small investigation to understand more about how educational programs might help students work to effect positive

social change for sustainability.

My research community. As a researcher I align myself more closely to the sub-fields of environmental and sustainability education than to traditional science education. Traditional approaches to science education have often privileged methods that focus on the challenges of teaching and learning about natural and physical systems and phenomena (e.g., the greenhouse effect). Although I understand the value of this research, I am personally drawn to research that focuses on how people teach and learn about the social, economic, and environmental dimensions of socioscientific issues (e.g., relationships between climate change and social systems). I am driven to understand how participation in social spaces can resist, challenge, and transform structures that have traditionally led to the devaluing of human life and the planet. I am particularly interested in how this transformation unfolds in contexts of learning: classrooms, schools, colleges, and informal educational spaces.

My methodological preferences. As a researcher in a college of education, I am drawn to methodologies that enable researchers to give voice to teachers and students who identify as members of marginalized or minority groups, and methodologies that allow for the consideration of situated perspectives of learners. I am also drawn to methodologies that prioritize the consideration of an individual's context (sociocultural, historical, geographical) when describing and measuring teaching and learning, typically using qualitative methods. These preferences stem from my experience living abroad for seven years and teaching in local and international schools, when I developed an appreciation for how context, culture, language, history, and geography impact the way we learn and participate in schools and societies.

My subjectivity and positionality. This research was challenging to conduct for a few reasons. First, many of the non-student participants involved in this research are my friends. This

made critical examination of the local dialectics in this space challenging because it meant that my results could potentially damage personal relationships. Second, as a participant, we (myself, students, professors) are all implicated in the local systems of the American Midwest and the SLS, some of which, as will be revealed below, proved detrimental to student participation and learning in those spaces. The structures of White supremacy, for example, are structures from which I have privileged my entire life as a White American, and I feel an obligation to strive for the development of a critical consciousness with respect to this positionality (although this is an ongoing piece of my own identity work). It follows that as a researcher who is interested in improving educational systems, I must be willing to expose and challenge problematic dialectics that impede equitable student learning that emerge in my teaching and research. This is a context through which I can work toward the development a critical consciousness about my own position in educational programs of which I am a part.

However, I worry that my non-student participants, who do not have the opportunity to interpret the research from their own perspectives, may feel uncomfortable reading sections of this report in which they playing a central role in shaping the learning norms of the SLS. On one hand, I fear they will feel targeted and want to remove themselves from stories that implicate them in dominant hegemonic systems. As their friend and colleague, I have a desire to protect them. On the other hand, as a researcher, when I think about leaving the stories out that implicate myself and other participants as members of racist, hegemonic systems, I feel that (a) I would be compromising my integrity as a researcher, and (b) I would be reproducing the harmful narratives that this very research shows need to be resisted and transformed.

I feel hopeful about this for two reasons. First, I hope that this analysis will spark a discussion that might help engender a much needed critical consciousness across environmental

education programs about how dominant large-scale narratives are reproduced in local educational spaces, and that my non-student participants as well as other environmental educators will join me in this goal. Second, I hope that the use of the agency/structure dialectic as a theoretical lens will help remove the desire to target individuals and will instead draw attention to how we are all implicated in problematic systems that we can improve through collective action, reflection, and reconciliation.

Third, these outcomes lead me to see value in the potential offerings of participatory action research as a future investment in my research career. Although I did not use this methodological approach in this study, I see the value of designing and conducting and analyzing research with the participants as co-investigators. That would allow for all perspectives of community members to inform the research design, and it would allow for their interpretations to be included in the analysis as well. This appears to be a more equitable way of engaging in scholarship that I am interested in pursuing in the future as a result of this work.

Although I am positioned as an outsider with respect to some components of dominant American Christian heteronormative culture, in most ways my identities positions me as a insider in dominant groups and as a person of privilege: being a native English speaker grants me easy access to international communities, travel, and employment abroad; being White affords social and economic privilege in the US because history and current events in mainstream media and society are told from a White lens and I do not have to protest to convince people that my life matters; and being American abroad grants me power as the member of a globally dominant economic class. My membership in unjust, racist, xenophobic, and harmful systems has granted me privileges many others do not have. It is my hope that this dissertation and my research in the future will help expose power hierarchies that devalue some voices over others in local and

global communities, and will help me understand how I can contribute to the creation of just and equitable systems in my schools and societies.

Broader Context of Research

This dissertation is part of a commitment to research at Simons Nature Preserve that has spanned the course of my doctoral program. I began this research in 2012 with the inaugural cohort of the Sustainability Semester, during which my research questions were more focused on students' sustainability "practices." Over time this changed as different and new questions emerged as a result of the research. For example, the research questions I am exploring in this dissertation are just a small piece of the larger questions I began with in 2012 in the pilot study, and even at the beginning of this research in 2014. However, one dissertation does not allow the time or space to explore all of these questions, so in this paper I have chosen to narrow the data and analysis to focus on only part of the original inquiry.

Through personal connections to the Simons Nature Preserve, I knew of this program during its conception in 2011. From what I knew of its curriculum and instructional design, the SLS offered a novel and unique approach to sustainability and environmental education that I found intriguing, mainly because of their novel approach to transdisciplinary education, and that the program was residential and situated in a remote region, which provided intriguing possibilities for intense, semi-ethnographic participation and research.

Research Design

I drew on multiple methodological resources when designing this research. The first was my theoretical framework (Chapter 2), which considerably informed many of the decisions I made in the crafting of this study. The theoretical considerations influenced the design most notably in my commitments to crafting a study that would (a) produce data to support a

dialectical analysis and (b) allow for the examination of the relationship between my participants' lived experiences as part of the program as well as their abstract ideas about how social change for sustainability happens.

The theoretical framework also led me to embed a commitment to understanding how both spatial and temporal scale influenced my participants' learning and experiences. Considerations of spatial scale led me to craft the interview protocols to include questions about how the participants envisioned the process of social change at individual, community, and global scales. This consideration of spatial scale was additionally translated into codes during analysis. Considerations of temporal scale led me to include three interviews: a pre interview (before the SLS), a post interview (immediately after the SLS), and a delay post interview (six months after the SLS). Although not included in this dissertation, I would ideally like to conduct two-year follow up interviews with the participants to consider how their narrated dialectics continue to change over time.

The second set of methodological resources I drew from to construct this study were resources that outline and describe standard processes and practices of qualitative research. For example, as I was designing the research, I drew on early chapters from *Qualitative Research and Case Study Applications in Education* (Merriam, 1998). Merriam's chapter on designing qualitative research was particularly valuable in that it helped me settle on interpretive case study as a basic design, but suggested that I could draw on characteristics of ethnographic methods to personalize my approach. As a result, I chose to make case study the central structure of the study, but included elements of the research that are more typical of ethnography, like the intensive field notes and allowing for the organic development of close personal relationships with the participants.

In thinking forward to data collection, I drew again from Merriam's book, but also used *Writing Ethnographic Field Notes* (Emerson, Fretz, & Shaw, 1995) to think about which methods and modes of participation in the research would allow for rich data collection. This resource was valuable as it helped me design a template for field notes, develop short-hand for codes I identified in the field, and also establish a protocol for field note transcription and analysis to ensure my notes were organized, coded, and that none got lost in the immense stores of data that I predicted would emerge from the research.

As I designed this research it was additionally important to me that the SLS faculty and staff feel comfortable with the work I was planning to do there. For this reason, I gave a presentation to the SLS faculty and staff shortly after my dissertation proposal defense to provide an opportunity for discussion about my research plan before it was finalized.

Finally, one of the more important resources I drew on in the design of this research was my experience conducting a pilot study of the 2012 SLS cohort (Miller, 2016; Miller & Anderson, 2016, in review). There were considerable differences between the pilot study and this study: the faculty and staff were different; the program's curriculum and instruction had changed to some degree; the students were of course different; and the research questions were entirely different. However, some of my experiences from the pilot study did inform decisions for this research. For example, I decided to include the questionnaires in this study to allow me to review the students' ideas before the interviews. This me focus our interview time on their responses to the questionnaires that were most interesting and relevant to the research.

Type and purpose of the case. This is a descriptive and interpretive case study with ethnographic features. It is a case study in that it is "an intensive, holistic description and analysis of a single unit or bounded system" (Merriam, 1998, p. 12). It is descriptive and

interpretive in that the goal is to describe and interpret the experiences and learning of the students and other community members within the SLS with respect to my theoretical lens and research questions. It additionally contains ethnographic characteristics in that the focus on the embodied dialectics in the space/time of the SLS draws attention to the "beliefs, values, and attitudes that structure behavior of a group" (Merriam, 1998, p. 12). Through this design, my purpose is to provide an interpretation of (a) students' actions and interactions in the local context of the SLS (their embodied dialectics), and (b) how they describe the process of social change for sustainability in abstract contexts (their narrated dialectics) as they move into, through, and out of the SLS.

Instead of prioritizing generalizability, interpretive case studies aim to interpret the meaning constructed by participants in cases that may shed light on the experiences of others in similarly unique cases. The methods and theoretical lens employed to study this case could then be used to examine other cases, or adapted for research in a different context (e.g., teacher education). Results across cases could then be compiled to look for patterns, typologies, and identify mid-range theories about how students narrate and embody the process of social change for sustainability in programs like the SLS or others.

Boundaries of the case. The bounded system of the case includes (a) the 2014 Sustainability Leadership Semester, (b) its faculty, staff, and students, and (c) and the events that took place during the semester. It is difficult, however, to bound the case by either the space or time as defined by the program. In terms of time, although my observations took place during the 2014 fall semester, the delay post interviews took place six months after the semester ended. Additionally, my data include students' stories that took place outside the space/time of the SLS, but which were helpful in providing supplementary support for interpreting observations.

In terms of space, although the semester was formally situated at the Simons Nature Preserve, the participants spent a considerable amount of time in the field. Most of this fieldwork was geographically bounded within the watershed in which Simons Field Station was situated. Another spatial consideration is that the structures through which the agencies interact (and potentially transform) in the local space of the SLS stem from broader spatial contexts. For example, large-scale structures which influence systems across the planet, national, and regional cultures were transformed through local action by participants in the local context of the SLS. With attention to historical scale, the actions and interactions that took place within this case are situated within larger geographical, political, and economic histories of the US, the historical context of Simons College and Nature Preserve, and the historical and cultural subjectivities each individual brought with them into the space and time of the SLS.

Embedded cases. The case of the SLS further contains four embedded case studies. Each student participant in the research represents an embedded case. Embedded case studies "involve more than one unit, or object, of analysis" and are "investigated in subunits, which focus on different salient aspects of the case" (Scholz & Tietje, 2002, pp. 9-10). Although embedded case studies are sometimes employed to allow for the use of different theoretical or methodological approaches within one study, this is not the case in this research. The embedded nature of the four participant cases is to draw attention to their unique positionalities within their local contexts, and to examine how they embody and envision the sustainability dialectic differently.

Units of analysis. Building on my theoretical framework, it was my intention to focus the investigation on situated interactions and how agency and structure interacted to effect change for sustainability in the space and time where these interactions took place. Therefore, it was important to me to develop an analytical framework that would focus on the dialectic without

privileging the individual or assuming deterministic structures that rendered agency ineffectual.

One challenge with designing a dialectical analysis is that structures are inherently invisible and abstract; it is the work of the critical researcher to help expose and uncover how structures are picked up and inform actions and interactions in a space and time. Actions and interactions, often interpreted as agency, are easier to identify as an observer than structure. This means there is a proclivity towards privileging an analysis of actions of an individual over the structures through which they interact. It was my goal during the analysis to describe the actions and interactions of my participants as situated in a social and historical context, so the structures they were resisting, reproducing, and transforming would be made visible through their positioning with relationship to other individuals, ideas, structures, and dialectics in the SLS time/space.

Therefore, the unit of analysis for Research Question 1 (embodied dialectic), was not the individual, and was not the space and time of the SLS, but the interactions between individual and context. The unit of analysis for Research Question 2 (narrated dialectics) was the participant's narrated dialectics with consideration for how the descriptions are situated in space and time. Although I must inevitably describe individual ideas and actions in any discussion of dialectical interaction, the embedded cases are not cases of individuals; they are cases of individuals enacting agency in the presence of social structures that contribute to the co-construction of the social systems of the time/space in which they exist.

Data Collection

Participant consent. During the first week of SLS, I scheduled a meeting with the students during which I shared my primary research goals. I shared that I was interested in learning about their experience during the SLS, how they envision the process of social change,

and how they work for change in local contexts. Additionally, I discussed my positionality within the SLS and my reasons for selecting that program for research. I gave them a chance to ask any questions they had about the research and/or my role during the semester.

Two copies of the consent form were distributed to each student that outlined the goals of the research, how I planned to use the data, that their participation was voluntary, and that they could withdraw from participation at any point. I gave students time to think about whether or not they would like to participate, to sign both forms, and to return one of the forms to me the following day. All four students consented to participate. When I received their forms, I gave them the link to the pre questionnaire and scheduled our pre interviews.

Faculty participants were also given a consent form that restated my goals of the research, how I planned to use the data from our focus group interview, and their rights not to participate. All faculty and staff involved in the SLS consented to participate. After receiving the signed consent forms I scheduled the focus group meeting.

Primary Data Sources

This research draws on two primary data sources: interviews and field observations. I drew primarily from interviews to answer Research Question 2 (narrated dialectics) and field observations to answer Research Question 1 (embodied dialectics).

Interviews. Each student completed three online questionnaires, each of which was followed by a one-on-one, semi-structured interview a few days after the questionnaire was completed (see Appendices A-C for questionnaire items). Students were compensated with twenty dollars per hour for the questionnaires and interviews. The questionnaires typically took about thirty minutes and our interviews took anywhere between thirty and ninety minutes. All interviews were audio-recorded, transcribed, and stored in a password-protected folder.

Each of the three questionnaire/interview "sets" began with an online questionnaire that the students completed at their leisure. I then read and coded the questionnaire responses and used the results to construct the associated interview protocol. This allowed me to inquire about ideas in their questionnaire that I felt were most relevant to the research. Over time, the interview protocols became increasingly tailored to their unique ideas and experiences.

For example, in the pre interview I barely knew the participants, and so during this first interview I asked them to expand on almost all of the ideas they had submitted in the questionnaire. By the time the post interviews took place, I had coded their pre interviews and the semester's field notes, and I was able to tailor my questions more uniquely for each participant in response to ideas that had emerged during the semester. Finally, by the time our delay post interviews took place, I had conducted preliminary analysis of their pre interviews, field notes, and post interviews. I used these final interviews to ask students specific questions about the patterns that had emerged in preliminary analysis.

Table 1 outlines each questionnaire/interview set along with general information about each data source. When data were selected for inclusion in the dissertation, I referenced the data sources using the names in Table 1. This is an important distinction because the student responses from questionnaires were submitted to me in written text. They therefore sound more formal and prepared than the excerpts which were taken from the interview data. The data from our interviews sound more conversational. In the results I omitted phrases that detracted from clarity (e.g., "like," "you know," "um" etc.). I used ellipses to indicate the removal of more substantial content, which was typically done to save space or increase clarity. I used three dots (…) to imply that I removed words, and I used four dots (….) to imply that at least one sentence had been removed.

Table 1. Titles and information about questionnaire/interviews

Data Source	Date	Description
Pre questionnaire	First week of SLS	Students completed an online questionnaire via Google Forms (Appendix A).
Pre interview	First week of SLS	After students completed the pre questionnaires, I read and coded their responses to construct the pre interview protocol. The interview protocol was comprised mainly of follow up probes and questions that asked the students to elaborate and expand on the ideas in their questionnaire. When new ideas emerged during the interviews I followed up with these as well.
Post questionnaire	Last week of SLS	Students completed an online questionnaire via Google Forms (Appendix B).
Post interview	Last week of SLS	After students completed the post questionnaires, I read coded their responses to construct the interview protocol. Field notes were coded at this point, and I asked specific questions about their experiences during SLS. When new ideas emerged during the interviews I followed up with these. These were more tailored to their unique experiences and ideas than the pre interviews.
Delay post questionnaire	Six months after SLS	Students completed an online questionnaire via Google Forms (Appendix C).
Delay post interview	Six months after SLS	After students completed the delay post questionnaires, I read and coded their responses to construct the interview protocol. Field notes and post interviews were coded at this point, and I asked questions that helped clarify questions that emerged in my preliminary analysis. I followed up on new ideas as well.

The faculty also participated in a focus group interview during which I asked about the program's "Transformational Outcomes" (Appendix D). In the development of the program, the faculty identified thirty outcomes that aimed to answer the question "How will students be different at the end of this experience?" During the focus group interview, I asked faculty about what evidence they look for to assess their students' progress with respect to these outcomes. The value of a focus group in this context was that because the faculty designed the learning objectives as a group, they were able to help each other recall ideas about the outcomes that they might not have recalled alone.

Field notes and observations. I participated in as many classes and field trips as my schedule allowed. I spent approximately 430 hours in the field during the semester. Data from observations were recorded in the form of field notes. Field notes were taken during observations of classes, field trips, and other events. When we were indoors and seated, I recorded field notes

electronically in a Microsoft Excel template. For events that took place outdoors, in transit, or in the company of those who had not signed a consent form to be audio-recorded, I took field notes by hand in a notebook and then transcribed them into the Excel template that evening. Field notes included data about who was there, where we were, what was said, and my own interpretations of the events. I also documented whether the day's field notes were supported with other data sources, included audio recordings, class materials, or other secondary data that were used during the event.

During observations I moved back and forth between *observer as participant* and *participant as observer* (Glesne, 2010). According to Glesne (2000), *observer as participant* primarily observes, but participates in minimal activities, whereas the *participant as observer* is more intimately involved in the events and activities of the context. Because I did not wish to influence the discussions instructors had with students during field trips and courses, I played a role of *observer as participant* during classes. This meant that during classes I usually did not speak, ask questions, or attempt to influence the discussions or experiences of the students and instructors in anyway. I spoke with each faculty member before their course began to ask their preferences for my participation. I also let them know that I was willing to stop audio-recording and note taking at any time if they requested.

In other settings I played the role of *participant as observer,* during which I participated more centrally in the events taking place. This included evening social events for students, meals, field trips, orientation activities during headwaters week, down time between field trips and classes (e.g., in a car ride on the way to a field site, a walk from the classrooms to another location, transitions). Participation in these types of settings included small talk, questions about scheduling or planning, or asking students or professors reflections on events they recently

experienced. I discussed my role in various settings with the SLS faculty before the research began, letting them know I was open to adjusting my role in various settings.

Over time, students and faculty became increasingly used to my presence during classes. They often agreed to conduct short, impromptu interviews during which I asked them for reflections on events of the semester, sometimes using the audio-recorder. However, over time I found that some of my most intimate and meaningful conversations happened with students when I had neither my audio-recorder or field notebook in hand. These often took place during car rides, on a walk from one venue to another, or while waiting for class to start. I always noted these conversations and my reflections in my field notes later that evening during coding.

Audio recordings of classes. I audio-recorded all classes that I participated in. In the presence of one or more visitors who had not signed consent forms I did not audio-record. Audio recordings were only transcribed in the case that field notes pointed to an exchange that was relevant to one of my research questions or data analysis.

Secondary Data Sources

Secondary data sources included a variety of materials and documents that provided information about the SLS from administrative or institutional perspectives, and that shed light on student experience. These included the Simons College website, SLS website, course syllabi, program schedules, assignment descriptions, student written work, student presentations, or published literature about the Simons Nature Preserve. No documents were used without the consent of the students or faculty. For both student work and program materials, I requested the materials from faculty and students personally. When it was appropriate, faculty members gave me student work directly, but only when the students were aware the work was being used as part of the research. These data sources supplemented my interpretation of the observations and

interviews, and provided contextual information about the SLS curriculum and instruction.

Data Collection Timeline

The following timeline (Table 2) provides an overview of data collection and major

events of the SLS.

Table 2. Timeline of major events of the SLS and data collection associated with each event

	Event	Data Collected
August 18-22	Week before SLS	Faculty consent forms; faculty questionnaire; faculty focus group interview; secondary data collection
August 24-September 4	Headwaters orientation week	Initial meeting with students to explain research goals and outline terms of participation; student consent forms; student pre questionnaires and interviews; field notes and observations
September 5-12	Canoe trip	Field notes and observations; audio recordings when possible; voice memos; I participated in four out of seven days of the trip
September 14-October 10	First pair of classes	Class field notes and audio recordings; field trip observations, notes; secondary data collection; additional spontaneous audio recordings with students about their reflections on field events
October 13-15	Fall break	No data collection
October 20-November 14	Second pair of classes	Class field notes and audio recordings; field notes on field trips; secondary data collection; additional spontaneous audio recordings with students about their reflections on field events; mid-semester interviews about neighborhood study
November 7 – December 9	EPS Project	Environmental Problem Solving project observations and field notes; secondary data collection
December 10-13	Debrief and end of SLS	Class and project observations and field notes
December 2014		Post questionnaires; post interviews
June 2015		Delay post questionnaires; delay post interviews

Coding and Analysis

Pre questionnaires and interviews. I began the analysis process by reading and

rereading my pre interview transcripts. During this process I took notes of what I found

interesting and relevant to the research. Because the interview protocols were based on the

students' questionnaires, I divided the interview transcripts into pieces and organized the

students' responses so that the interview responses aligned with the questionnaire responses. I

took notes on my initial interpretations of the interviews using a preliminary coding scheme that

I had included in the dissertation proposal. During this phase of the analysis, I intentionally

remained open to the emergence of new codes and patterns (Miles & Huberman, 1994).

Field notes. In alignment with suggestions from Emerson et al. (1995), field notes were transcribed and coded each evening after observations ended. I spent approximately 15-20 minutes coding and analyzing for each hour in the field. For example, on a day that included five hours of observations, I spent between 1-2 hours transcribing and coding the field notes the same evening. This took longer for hand-written field notes, which had to be transcribed into my digital template before coding and analysis.

During the note taking in the field, I used short-hand abbreviations to indicate exchanges or events that were relevant to my research questions. I developed specific 2-3 character abbreviations for each participant, faculty and staff member, and visitors. I also developed abbreviations for codes that corresponded to my research questions. I made note of these codes in a right-hand column next to the field notes.

Each evening, I revisited the notes and filled in gaps in the short hand notes. This meant, for example, recreating conversations I wanted to recall in more detail (sometimes using audio recordings if available), recording reflections, assigning new codes that I had not noticed in the field, and summarizing the main events and meanings that emerged from that day's activities. I made notes about patterns that were emerging in the data, and sometimes developed new combinations of codes that reflected these patterns. For example, I noticed very early in the semester that Franco often described barriers to sustainability at a global scale, which I coded FR/GL/BAR (FR = Franco; GL = Global scale; BAR= barriers to change or sustainability). I additionally made autoethnographic notes about how I felt as a researcher in the space with attention to how my own positionality and subjectivity was impacting the research.

On overnight field trips where I did not have my computer (e.g., the canoe trip, a few other multiple-day trips), I used voice memos for reflection to take note of the more memorable

106

and meaningful events of the day that I wanted to make sure to revisit in during analysis. After the canoe trip, for example, which resulted in over 100 in the field, I spent a few hours each evening for a few weeks (in addition to my regular evening transcription and analysis) transcribing my canoe trip field notes, and I listened to the voice memos for direction on which pieces of the field notes were most important to focus on during analysis.

Post questionnaires and interviews. By the time the post questionnaires and interviews were conducted, I had coded and analyzed the field notes. Patterns had emerged in through my observations and interactions with the students, and I had constructed early drafts of the students' narrated and embodied dialectics. As a result of this, I wanted to use the post interviews to follow up on some of the patterns that had emerged during the semester. For this reason, these interviews were much more tailored to each of the specific students' ideas and experiences than the pre interviews had been.

I combined the questionnaire and post interview transcripts again into one document. I read and reread the post interviews and made notes using the now somewhat transformed coding scheme that had emerged over the course of the semester as a result of observations and field work. The coding and analysis of these post interviews served to deepen my understanding of the students' narrated dialectics particularly, and also provided additional insight into the students' reflections on some of the events of the semester.

Delay post questionnaires and interviews. Six months after the semester ended, I had constructed draft embodied and narrated dialectics for each participant, and I used the delay post questionnaires and interviews to ask about questions that still remained after preliminary analysis. For this reason, the analysis of the transcripts also focused on uncovering more details about how the students narrated and envisioned the process of social change for sustainability.

Once all data were collected, I input the combined questionnaire/interview sets (pre, post, and delay post) into qualitative analysis software NVIVO for further coding. Although I felt comfortable at this point with the main patterns that had emerged from the field notes and interviews, I wanted to see if using this software would (a) reveal new themes or patterns that I had not noticed on my own, (b) confirm or contradict patterns that emerged from the earlier coding and analysis, or (c) provide a more nuanced interpretation of my data. I coded the interviews using the codes I had settled on in my previous analysis, and allowed for new codes to emerge during the process. This round of coding was valuable in that (a) it confirmed the patterns I had already identified through coding and analysis of the interviews and field notes, and (b) provided an organizational structure that allowed me to find excerpts from the interviews that would be most useful to include in the results chapter.

This round of coding did not feel crucial to the analysis, however. This is because the participant observation and ethnographic fieldwork allowed me to form close relationships with the student participants, and by the end of the semester I was intimately familiar with my data. I had read and reread and listened to my interviews multiple times, and already knew which pieces of the interviews might be most salient for telling their stories in the results. Additionally, while the analysis tools available in NVIVO facilitated locating certain excerpts during the writing process, it sometimes divided data up into pieces in a way that I felt detracted from the meaning that emerged from the overall story. Although I found the process of coding in NVIVO valuable because it facilitated the writing process and because it helped confirm my results, it did not feel crucial to the analysis.

Limitations

There are considerable limitations to the methods and analysis I adopted for this research.

The first is of course that qualitative case study research of this scope does not lend itself to generalization to other cases. While it might contribute to the development of mid-range theory about what may be happening in similar cases if replicated in another case, the value is to shed light into learning in a specific space and time with my unique theoretical and methodological lens. The primary goal of this case study is theory building, not generalization.

Second, I am the primary interpreter of the data. There was no process of determining inter-rater reliability across coders, nor were there group discussions between researchers about how to interpret certain events. For this reason, the Research Identity Reflection (above) is particularly important for readers to understand how my subjectivity and positionality inform every aspect of the research, which includes the analytical lens I used to interpret the results.

Third, this research offers a dialectical interpretation of the participants' experiences in the SLS, as well as an analysis of their ideas about their own role in effecting change in their social worlds. However, this analysis does not provide evidence for why my participants learn in the ways that I was able to describe and interpret:

> Interviewing and listening to pupils and teachers talk are particularly appropriate methods of gaining a degree of access to the discursive consciousness of individuals involved in schooling. However, while this is the most visible level of agency, it does not provide a complete account of *why* agents act in particular ways or what motivates agents to act. Discursive consciousness is also class-based in that the different levels of cultural capital acquired by individuals are likely to affect their interest in, and mode of, articulating information about social conditions and behavioral contexts. Consequently, it warns us about the adequacy of sociological accounts constructed wholly upon interview data. (Shilling, 1992, pp. 82, emphasis in original)

What Schilling points to here is true of this research as well: this dissertation was not designed to produce a complete account of the causal mechanisms between my participants' pasts and the learning and experiences I observed in the SLS. Nor is it designed to produce an account of their motivations for acting in certain ways. However, the combination of interviews and field

observations is my attempt to move beyond relying only on the discursive consciousness of the participants as observed through interviews, and to be able to look for a relationship between their embodied dialectics (as documented through field observations) and their ideas about change (as documented through interviews). The focus is on the unique relationships between their embodied and narrated dialectics, not on motivations that explain why they act and behave in certain ways in the local space of the SLS.

CHAPTER 4

RESULTS: CONTEXT AND STUDENTS' EMBODIED DIALECTICS

Part I. Context of the Sustainability Leadership Semester

The Sustainability Leadership Semester (SLS) is a undergraduate academic program that

takes place at a 1,200 acre nature preserve in the Midwest. This nature preserve, hereafter

referred to as Simons Nature Preserve, is owned by Simons College, a small, private liberal arts

college associated with a regional Christian faith tradition. Simons Nature Preserve is about 30

miles Southeast of the college, and hosts a variety of programs that serve K-12 schools as well as

undergraduate and graduate students. The SLS is a residential undergraduate program that

provides fifteen credit hours towards a major or minor in sustainability or environmental science.

This particular program takes place at the Simons Field Station, which is a building

community within the Nature Preserve that consists of two student dorms, a greenhouse, a barn,

and an academic building with faculty offices, a library, and classroom space. The Simons Field

Station is also the site of the sustainable farm, which provided vegetables, herbs, and chicken and

pork for the students' meals. The student dorms and academic building at the Field Station were

the first LEED Platinum certified buildings in the state. The buildings use a geothermal system

for heating and cooling, recycle rainwater for washing clothes and flushing toilets, and produce a

majority of their own electricity using photovoltaic panels and a wind turbine.

The Simons Field Station is bounded by a soybean/corn field to the East, a low-income

White community to the North, and the Simons Nature Preserve to the West and South. The

surrounding community residents are considerably more politically conservative than the

residents, faculty, and staff at the Field Station. The aesthetics in the local community contrast

those of the Field Station. Neighbors fly American flags (which signify patriotism, conservative

values, or support of the military), drive large trucks, and engage in traditional farming with genetically-modified crops, fertilizers, and pesticides. They use the land for recreational purposes like hunting and fishing. Simons Field Station challenges this discourse by engaging in natural (organic) gardening, pacifism as associated with their local theology, and land preservation where hunting is prohibited. There are no American Flags visible at the Field Station.

This pacifist discourse contrasts the use of military and patriotism to build community in the surrounding region. For example, in the nearest town of about 250 residents, one of the most popular gathering sites is the Veterans of Foreign Wars (VFW) building. This building and others display American Flags and take pride in their community's contributions to the American military, a sentiment that is antithetical to the Simons faculty's theological commitment to pacifism.

The designers of the program, including David and Rae, constructed a list of thirty "transformational outcomes," which were used as the main learning goals for the semester. These were divided into five categories: sense of place; cooperative work; leading from the heart; self in relationship to all things; hope; challenged and engaged; and creative problem solving. A list of all thirty transformational outcomes can be seen in Appendix D.

The SLS faculty and staff were usually part of the social settings of the SLS, either in classes, on field trips, or during down time at the dorms and academic buildings where the students lived. Table 3 provides an overview of the faculty, staff, and other members of the SLS community who are part of the SLS community. Although the students worked with more people than this at the field station, I only included those who appear in the data and analysis below.

Table 3. Non-student participants and members of the SLS community

Pseudonym	Title	Role in the Sustainability Semester
Alfred	Instructor	Alfred had a scholarly background in theology and taught the faith, ethics and ecojustice course; accompanied students on field trips; attended canoe trip; coordinated Grove Estates case study
Casey	Program coordinator	Casey had a scholarly background in environmental education. He handled the day-to-day logistics of the SLS and spent more with the students than other community members. He coordinated and attended all field trips including the canoe trip; facilitated weekly meetings with the students; cooked many meals
David	Professor	David had a scholarly background in environmental management and taught the Environmental Policy and Politics course; attended many field trips and participated in most of the canoe trip
Pierre	Professor	Pierre had a scholarly background in ecology and taught the Sustainability and Regeneration course which included the community investigation; advisor for the students' Environmental Problem Solving Projects; attended field trips and the canoe trip;
Rae	Professor and director of the SLS	Rae had a scholarly background in natural resources management and environmental education. She taught the landscape limnology course; attended field trips and most of the canoe trip

Part II. Introduction to the Student Participants

Charlotte. At the time of the SLS, Charlotte was a cisgender heterosexual White able-

bodied environmental science major. She was in her third year of college and was interested in

continuing with graduate studies or environmental education after graduation. She was a

confident leader and enthusiastic speaker. She did not shy away from conflict when her ideas

were challenged, and eagerly challenged ideas with which she disagreed. In our post interview, I

asked Charlotte what she would want people to know about her if they were reading this case:

> CHARLOTTE: I think it is important to understand that I am a very in-the-moment,
> emotionally driven individual... This informs a lot of my responses in class and reactions
> to new experiences or concepts. I process out loud, by talking and sharing with others. I
> also love to hear and build upon others' ideas. I find joy and motivation in creating
> connections, building bridges, drawing lines, and deeply analyzing ideas or perspectives.
> I also— because of my talkative nature— can at times not allow others a turn to speak, I
> don't listen well. This semester was a great opportunity for me to work on this because
> everyone was willing to share their opinion since it was such a small group. I would also
> add that I am a bubbly, smiley, and energetic individual. (Post questionnaire)

Charlotte's interest in the Sustainability Semester was one of the main reasons she

enrolled in Simons College. Charlotte had numerous experiences during her K-12 years that she

described as formative in the development of this interest in the environment and sustainability, in both formal and informal spaces. She traced her interests in sustainability to her family from a young age: "I think because I grew up in a family that was environmentally conscious and aware of the actions that our consumerist decisions had, and really drove a relationship with the environment as a value for our family" (Charlotte, Pre interview).

One childhood memory that she says contributed to her interest in sustainability was collecting eggs with her father on his "organic learning farm," and participating in his community organizations that focused on sustainability. She also attended an environmental-focused charter school from grades four through eight, and then spent one semester at a residential sustainability program for high school students called the "Conserve School" in Wisconsin. She described the Conserve School as her ideal learning environment:

> CHARLOTTE: I was really interested [in Conserve School] because I hated high school. I felt really alone in my interests and my passions. Conserve School was a really good opportunity for me to meet other people my age who were interested in the same things that I was…. I was outside all the time. It didn't matter if it was negative 30 degrees outside or 75 degrees and sunny... Pretty much everything we did was really interactive and interdisciplinary. We read about Shackleton's experience in Antarctica. And we did reenactments of passages of the story. And that was our English and our history class…We did really cool projects like we read the book "Into the Wild." And then we watched the movie. And we had to pick a song from the movie and explain how the lyrics and like the musical significance of it were important for the story line…We just had really creative projects….And it never really felt like I was in a classroom….we were outside all the time. (Pre interview)

From the beginning of her time at SLS, Charlotte authored herself as a confident, strong leader who was passionate about sustainability and wanted to use her leadership skills and strengths to influence the thinking and actions of others:

> CHARLOTTE: I know where my strengths lie in my leadership abilities. I know that I'm a good communicator and that I'm a good brainstormer. I like to think big picture. And I like to encourage people and think positively and bring a lot of energy to projects. So I would say that I'm a pretty passionate person. (Pre interview)

Amber. At the time of the SLS, Amber was a cisgender heterosexual White able-bodied environmental science major in her third year of college. Amber grew up in a farming community in the rural Midwestern US on a traditional corn and soybean farm, and identified closely with the farming community. She was gregarious and outgoing in social settings, and enjoyed meeting new people. She traced her interest in sustainability to her close connection to nature that she developed on the farm:

> AMBER: I was always outside, especially in the summers, running around barefoot…it was freedom. You could do anything you wanted. You had a deep connection to the land because that was your entertainment and that was how you lived…. I grew up with that freedom in the land and appreciation for it. That's how I came to want to take care of it, because I grew up on it." (Pre interview)

Amber attributed her close connection with nature, the outdoors, and animals to her experiences on the farm as a child. She often described herself as "outdoorsy," and when I asked her to explain what this meant she said "I'm not afraid to get dirty. I love animals and generally animals are outside. I enjoy just being in nature. I can sit in one spot and just observe the world around me. I like to hunt" (Amber, Post interview). Although she grew up on a farm, she didn't work as a farmer until early adulthood when was employed on a sustainable farm, which changed how she thought about farming and agriculture.

In our post interview, I asked Amber what she would want people to know about her if they were reading this case, and she was reluctant to define herself in a short answer to a questionnaire: "I think it is important for people to understand my personality, but I am not the best one to define it. I think what other people see is what they should know about my personality" (Post questionnaire).

Sarah. At the time of the SLS, Sarah was a cisgender heterosexual White able-bodied environmental science major in her final year of college. Sarah was born and raised in a suburb

outside a large Midwestern U.S. city. Sarah described herself as an introvert and as an artist, and

was quiet in social situations. She became interested in sustainability her freshman year at

Simons College, and cited the interdisciplinary nature of the field as key in her decision to switch

majors from elementary education to environmental science. The study of sustainability

presented a challenge and juxtaposition that she appreciated as an artist:

> SARAH: I grew up seeing the world as both mysterious (from my mother) and predictable (from my father). I think this shaped my intellectual view as one that incorporates deep 'artistic' thought and quantitative reasoning simultaneously. I could never be a scientist without holding the idea that artwork is equally as valuable to the world as scientific work. When I learned about sustainability (first year of college) I was naturally drawn in. It incorporates the natural world and the social world and creativity through many different disciplines. There is an understanding that we have to think in new and different ways. (Pre questionnaire)

I asked Sarah what would be important for people to know about her if they were reading this

dissertation, and she focused on her tendency to participate through listening:

> SARAH: It's important for people to understand that I am introverted, which drives a lot of how I operate in the world. I need time to sit by myself, be in silence, and ponder the day. I easily get tired when I am around a group for too long, and I often deal with this by withdrawing from the conversation…. I experience the world in a much more amplified way than most…. When I was younger, I was often told that I was too shy and needed to work on my conversation skills. It has been ingrained in my head that conversation is not my strong point. However, now that I am older, I realize that I am different because I am introverted, not because I am naturally shy…. (Post questionnaire)

Franco. At the time of the SLS, Franco is cisgender heterosexual able-bodied

interdisciplinary major in his third year of college. He was an international student from India.

He was ethnically Indian with Brown skin and described himself as a Person of Color. His

interdisciplinary major allowed him to create a course of study that combined his three interests:

sustainability, IT/communication, and music. Franco grew up in a former Portuguese colony in

India, which was influenced by Indian, Catholic, Portuguese, and British cultures. He spoke

English fluently and his word use and grammatical construction resembled an upper-advanced

116

English Language Learner, meaning that he sometimes used non-conventional phrases and words but was always clear in meaning. He also spoke Hindi fluently as well as some Portuguese.

Franco traced his interest in sustainability to growing up in India, where he often experienced lengthy power outages and lacked access to basic resources. Franco spoke of his experiences at Simons College and in the SLS as being influenced by his identities a global citizen, international student, and Person of Color who grew up in a developing country. He often stressed the importance of global sustainability and environmental justice, which he described as stemming from a childhood surrounded by poverty. In our post interview, I asked Franco what he would want people to know about him if they were reading this dissertation:

> FRANCO: It's important for people to understand my background. Readers also need to understand the harsh reality of living on both sides of the developed and developing world spectrum. It's also important to note that I still face a lot of struggle with my life, especially financially. I live each semester not knowing whether I can afford to attend the next semester. I grew up in areas that lacked basic resources, such as electricity and clean water. It still horrifies me how people in America utilize resources at such a vast rate and waste so much…. I have seen both sides of the spectrum, which is why I find it so exceedingly difficult to be optimistic about the future. I truly believe that the wealthy consumes and wastes resources at the cost of the poor. I've seen it with my own eyes. (Post questionnaire)

Part III. Embodied Dialectics

The following section is organized around events that took place during the SLS. The goal of this section is to demonstrate how each of the participants embodied the sustainability dialectic differently in each of the events and contexts described below—arrival day, orientation, classes, field work, and their environmental problem solving project. The unique ways they embodied the dialectic in these contexts and during these events transformed the collective space in which they were learning. As you may recall from reading the conceptual framework in Chapter 2, the *embodied sustainability dialectic* is the way that students work for change for sustainability in the local context of the SLS with attention to how agency and structure interact.

This section aims to draw attention to how each of the participants positioned themselves and were positioned in the local context of the SLS through interaction with the structures that were picked up, reproduced, resisted, and transformed in the space. Ideally, this will demonstrate how (a) each of their identity performances contributed to the dialectic in their learning community, and (b) the context in which their learning took place influenced their own identities and agencies in those spaces. This part is divided into five sections that focus on different events that were particularly salient for each of the participants, and which emerged as central to their experiences: arriving and first impressions, headwaters week (orientation), classes, field trips, and their Environmental Problem Solving (EPS) projects.

Arrivals and first impressions.

Franco. Franco requested a ride from Simons College to the Field Station because, like most international students, he didn't own a car. On the afternoon of registration and check-in, I rode with Rae to Simons College to pick him up. When we arrived on campus he was wearing athletic shorts, sneakers, and a Simons College t-shirt. He brought with him the least amount of belongings compared to other participants—a few boxes and a computer. On the ride down he told us about himself, how he came to attend Simons College, and about his experiences there.

We asked Franco how he ended up coming to Simons College from India, and he explained that a recruiter from the College had a connection with the international school he attended in India. In these first introductory stories he discussed the discrepancies between quality of life in India and the U.S., noting that although he disliked the excess of American consumerism and lack of public transportation, it was easier to live in the States because of reliable access to electricity, water, and infrastructure.

Charlotte. After we arrived at the Field Station, Rae and I sat in the entrance waiting for

118

the other students to arrive for check-in while Franco unpacked his belongings. Charlotte arrived next. Both of her parents had traveled from another state to help her move in. She wore sandals, shorts, a t-shirt, a nose piercing, and carried an up-cycled shoulder bag covered with message pins, one of which read "If you want peace, work for justice."

A few minutes into the check-in, Charlotte realized that she'd forgotten her canoe paddle. All three of them reacted with disappointment, and her parents suggested that they could mail it to her when they returned home. Her family was socially confident, outgoing, and curious about the SLS and the Field Station. They chatted with Rae and me for some time before helping Charlotte move into her dorm room.

Amber. Amber arrived next and was accompanied by her mother, who said she would have to leave early to get to work that evening in a neighboring state. Amber was wearing a long skirt when she arrived, which she changed out of as soon as she arrived. When they returned to the academic building after changing clothes, I was in the garden collecting herbs for their welcoming dinner. Amber mentioned to her mother as they walked by that they had cooked most of their meals at home that summer from food from their own garden. On my way in I asked Amber and her mother about the garden and Amber told me a bit more about it, but qualified the story by saying that her father is an industrial corn and soybean farmer, something she suggested clashed ideologically with the local food movement and sustainability. Amber's mother changed into a *Duck Dynasty* tshirt, and Amber into leggings and a cotton t-shirt, with three earrings in each ear. I noticed that Amber's iPad cover had a camouflage design with a pink background.

Sarah. Sarah was the last participant to arrive. She came by herself with a car full of belongings. She wore solid-colored cotton clothes and glasses, with no makeup and no visible piercings. She turned down the offer to help with her belongings and did not engage in much

conversation before heading to her room to settle in.

Welcoming dinner. Rae, Casey, and I cooked the students a welcoming meal. Over dinner we discovered that Sarah, Amber, and Charlotte knew each other because they had taken an entomology course at the Field Station together in a previous semester. Franco was the only student who had never taken a course there. The conversation during dinner was dominated primarily by Charlotte and Amber, who were outgoing and friendly. Sarah's and Franco's contributions to the conversation on the first evening consisted of answering a few simple questions about their studies. Otherwise they listened and participated through laughter.

At the end of dinner, Casey, Rae, myself, and the students went outside where Casey provided an overview of the goals of the semester, as well as some ground rules for their participation in the program. He had a list of "things to expect," which included (a) his support, (b) tough work and fun stuff, (c) discord and conflict, and (d) working towards consensus. In this introduction, Casey stressed the importance of being supportive of each other's differences, working through conflict, and also working towards consensus in certain situations.

Headwaters week (orientation). Amber was the first person to arrive for the first full day of orientation, which turned out to be a pattern during the semester. She was an early riser and kept the schedule of a farmer even when she was a full-time student. She was always the first student to arrive for morning classes and she often turned down opportunities for social events that took place in the evenings because she kept an early bedtime.

When she arrived she wore leggings, a pink tank top, and sunglasses that were studded with rhinestones. She immediately opened her iPad and watched a video while we waited on the other students to arrive for breakfast. Charlotte arrived in overalls, a head scarf, and Keds. She quickly began conversation with the others in the room who were cooking breakfast while

Amber watched her video. Franco arrived in a Simons College t-shirt and athletic shorts, followed by Sarah, who wore jeans and a light sweater. As the semester went on, Sarah was usually the last to arrive for classes. She described herself as a late sleeper and coffee drinker.

After breakfast, the professors and instructors took some time to explain what each of their courses would entail. David mentioned that his Environmental Policy and Politics course would teach them "how to change the world," and added that he was going to New York later that month for the People's Climate March, which would take place on September 21, 2014. Charlotte immediately expressed interest in attending the march, and made plans to coordinate with David later about carpooling. I asked her about this later:

> ME: Are you planning to go to New York to protest?
> CHARLOTTE: (chuckles) I've been thinking about it. I honestly, I know that I should.
> ME: Why do you think you should?
> CHARLOTTE: Because I've had the opportunity to go protest and be arrested like three times. And it hasn't worked out any of the other times. And I feel like I'm running out of opportunities to do that in my college career…. I do recognize the importance for standing up for things that you believe in. And also I feel like it's my duty to go and do it, because I haven't yet. And I have had many opportunities to do it and been really disappointed when I couldn't. (Pre interview)

Although Charlotte ended up skipping the March so she could participate in the scheduled events of the SLS, this was just one example of how she positioned herself as an activist early on in the semester. Charlotte often expressed interests in mobilizing others to work for change or protest, even in the local context of the SLS. For example, early in the semester, the students were discussing advantages and disadvantages of having only four students in the program. Charlotte pointed out that "with only four people it will be really hard to skip class. But on the other hand, it will be really easy to boycott, because we'd only need to convince three other people" (Field Notes, 8.30.15).

After the introduction to courses and a few other events, Glen, the resident agroecology

professor (who did not teach any formal classes in the SLS but whose office was in the academic building), gave the students a tour of the Field Station and sustainable farm. As soon as we got outside there were few chickens loose, and Glen asked if the students could help get the chickens back in their pen. Without hesitation Amber tucked one chicken under each arm, scooped up another chicken by the feet, and dumped all three of them into the pen. The other students hesitated, and watched as Amber continued grabbing chickens. Each of the other students tried to chase or pick up one of the chickens (with varying success) by the time Glen and Amber had collected the rest of the loose animals and returned them to the pen.

During the rest of the tour, Amber established herself as a farming insider. She asked Glen questions about the methods used on the sustainable farm, and relayed stories of some of her experiences working in both industrial and sustainable agriculture. Her exchanges with Glen were animated; she was clearly interested in learning about the detailed workings of the farm and its operations. She asked questions about crops, crop rotation, compost, and animals. This established a pattern in Amber's participation in the SLS: she positioned herself as an expert in farming, and as someone who enjoyed discussing farming practices with other farmers.

After a few tours of the Simons Field Station, Alfred provided the second meal of the day. The students came inside, set their things down, and began to put food on their plates, thanking Alfred for the meal. Alfred interrupted them and began praying. The students (and myself) stopped our food gathering for the prayer. This established a pattern for the rest of the semester – Alfred and other faculty often led a prayer before the meal. The students did not engage in this practice when members of the faculty or staff were not present.

Towards the end of the evening, Pierre asked the students to write a reflection on a time when they had tried to persuade a friend or family member to adopt an environmentally friendly

practice. Each of the students shared their stories of persuasion. Although Sarah rarely volunteered contributions to the conversation, she was happy to participate when she was asked a direct question. She told a story about a time she took a road trip with friends who used disposable water bottles instead of reusable bottles. Sarah mentioned her disapproval to one of her friends, who responded by suggesting that there was no use recycling because "God was in charge of the Earth and would take care of its fate."

By relaying this story, Sarah positioned herself as critical of Christian perspectives like this, as well as other tenets of Christian faith, which she elaborated on briefly. Pierre asked if she'd followed up on the conversation, and Sarah responded that continuing the conversation would have made her feel uncomfortable because of their different perspectives. This was one of the first personal stories Sarah had shared this week, and it positioned her in the group as someone who disagreed with at least some Christian ideas.

Pierre responded to this speaking from a Christian perspective, saying that he, too, struggled to speak with "other" Christians about their relationship to God and the environment. He told a story of a time when he appealed to a roommate who ate beef from CAFOs by asking his friend "don't you want the animals to live as God intended them to be?" In Pierre's story, he positioned himself as one Christian trying to have a conversation with another; Sarah's story, however, did not reveal her own faith identity.

For the rest of the discussion Sarah sat quietly and offered no further ideas to the conversation. Throughout the semester, this positionality came to be one of Sarah's most significant struggles in terms of her participation in the SLS community: the SLS community was often assumed to be a Christian space by the faculty and staff, including Pierre, which made Sarah feel that as a questioning Christian she may be punished for sharing views that conflicted

with the world views of her professors.

On the final day of headwaters week, Amber arrived to the academic building first, wearing a camouflage Cabela's brand hat, hiking shoes, a cotton tank top with lots of words on it and a cotton jacket with lots of words on it. I described her look in my field notes as "rural gear." Charlotte arrived Choco brand shoes, outdoor shorts, a t-shirt from an Evangelical Christian bible camp, a head scarf, and a bag from REI. I described her look in my field notes as "ultimate gear." Sarah wore hiking pants, hiking shoes, and a cotton t-shirt, which I described as "simple gear." Franco wore hiking boots, shorts, and a rain jacket, which I described as "athletic gear."

On this day the students met with some of the Field Station faculty and staff to practice interviewing and questioning skills, which Rae and Casey described as an important skill for the semester, as they would be participating in over thirty field trips to learn about what community members are doing in the Saint Francis Watershed to work towards (or against) sustainability. Casey mentioned the importance of asking questions that would elicit a range of values, ideas, and perspectives from the people they were interviewing.

One of the more interesting exchanges during this "practice interview" session was with Kevin, who was the property supervisor of the Simons Nature Preserve. He maintained the buildings, borders, and helped enforce the land use policies there. Kevin grew up in the local town. One of the buildings on the Simons Nature Preserve property was owned by Kevin's grandfather before it was donated. As he was introducing himself, he began to tell a story about the conflicting perspectives between the local residents who surrounded the Field Station and the Simons Nature Preserve community.

As a local, Kevin had heard the local residents complain about the field station for a variety of reasons: it wasted good farm land, the deer that lived in the Field Station often went

onto the farmers' land and destroyed crops, and hunting was prohibited. Kevin also mentioned

that the local residents were much more politically conservative than the Field Station

community, and that the local residents often spoke negatively about it being there. During his

career at Simons (over twenty years), local residents had tried to set buildings on fire, broken

new windows, destroyed signs, tried to hunt on the property, and fired bullets over Kevin's head

when he interrupted illegal activity on the property. Kevin described himself as a mediator

between these groups, because he'd grown up in the local town and knew most of the residents,

but was an insider at the Nature Preserve.

Later that week in our pre interview, I asked Amber about this story:

ME: You know that makes me think of the other day when we were having that session where you were practicing interviewing local people and Kevin was talking about how there's this tension between the Nature Preserve and the farmers that live around it. I think that's kind of an interesting relationship. What did you think about that?
AMBER: I thought that was really, really interesting just because I realized the struggle. Because I come from the farming aspect of it. And like yeah, that's their livelihood. But I'm also a person who loves a place like [the Field Station]. So it's like I'm kind of that person in the middle who realizes the need for agriculture but I'm also the person that realizes the need for environmental places. So I guess that kind of makes me the middle man who can see both sides and hopefully like bring things together. So yeah, you need crop land, but there are other ways to do it. (Pre interview)

Amber often positioned herself in the SLS as a neutral mediator who was able to see different

sides of a conflict and work to "bring things together." Based on early observations, I would

have placed Amber in a more politically conservative group due to her connections to the local

farming and hunting communities, but Amber herself was explicitly opposed to putting herself in

any category or group to define her identity, describing herself as a "middle man" like she did in

the quotation above. This was important to her role as a facilitator of dialogue between groups

who had different perspectives or ideas.

During orientation, Franco positioned himself as a global thinker who wanted to think

about sustainability outside the context of the local watershed. The instructors named the first week "headwaters" week as a metaphor for their investigation into the local watershed. They framed the introduction to the semester in this context. Franco, as an international student, was less familiar with the local politics, culture, and systems, which he mentioned a few times in this introductory week. In his post interview he recalled this as one of his first impressions: "That entire first week was focused on the watershed and looking at it. Everyone was talking about local, local, local and I kept going broader and broader" (Franco, Post interview). Franco described his efforts to expand the spatial scale of the conversation "broader and broader" as his way of positioning himself as someone who prioritized consideration of the global scale in any conversation about problems with the environment or sustainability.

Perhaps because of Franco's interest in examining sustainability from more global perspectives, he was reluctant to participate in the conversation about the local watershed or the local natural history of the area during headwaters week. He positioned himself as a listener in most of these early conversations. During the first three days of orientation, Franco and Sarah rarely spoke, mainly answering questions about their goals for the semester other questions when asked directly. Charlotte and Amber lead most of the conversations, asking questions about the semester and what to expect.

Classes. The students took four courses together during the semester, which are overviewed in Table 4. These courses sometimes intersected with the field trips, and each course contained a project in some form during which students worked as individuals or in pairs. Each of the courses included somewhere in its focus a connection the local St. Francis watershed, which was the primary geographical and social unit of analysis for the semester.

Table 4. Sustainability semester courses

Instructor	Course name	Course description from syllabus
Pierre	Sustainability and regeneration	This course will present students with a brief introduction and an array of tools for framing sustainability discussions and thinking, drawn primarily from economics, sociology and anthropology.
Alfred	Faith, ethics, and ecojustice	A survey of biblical and theological literature related to creation care will be the foundation of this course. Students will interact with the writings and life stories of Christians who have grappled with the interconnectedness of God, humans and the rest of the created order. The course will emphasize peacemaking and an understanding of ecological justice as essential to addressing environmental problems.
David	Environmental policy and politics	Explores the environmental policy making process with specific attention to water and land management policy in the [local river] watershed….We will analyze how the intersection of socio-economic forces with scientific data shape policy development and implementation. This course will include a critical and normative analysis of current policy with an assessment of the future role of students in creating and implementing policy.
Rae	Landscape limnology	This course examines the physical, chemical and biological Limnology variables of freshwater lakes, streams and wetlands that influence living organisms in these aquatic ecosystems. The course emphasizes how human interactions with waterways contribute to the environmental, economic and social health of watersheds that make up every landscape.

Charlotte. Early in their interactions during classes, Charlotte positioned herself as an enthusiastic learner, leader, and student who enjoyed participating in discussion about the big ideas related to the readings, fieldwork, and projects. Charlotte was usually the first person to answer questions posed by professors, and often spoke more than both the professors and other classmates combined. She directed her attention and ideas towards the professors, picking up their narratives, frames, and perspectives to help explain her ideas and contrast her ideas to either the authors they were reading or others in the room. She did not hesitate to challenge the ideas of her professors and classmates during discussions, which positioned her as a confident thinker. She often steered the conversation in a direction that helped her understand a problem she was interested in learning more about, and she was openly critical of components of the courses that she did not like. My field notes and recordings of class discussions consist primarily of exchanges between Charlotte and the professors.

Charlotte centrally positioned herself as a full participant in terms of the content of the

courses. She had already read their first book, *A Sand County Almanac*, and shared accounts of

her familiarity with the material and her visit to the author's home. At the end of the discussion,

Rae showed an image of a pale blue dot, and Charlotte said excitedly: "Have you read the

poem!?" Rae confirmed that indeed she was about to read the same poem Charlotte was referring

to. Charlotte responded enthusiastically. Her ideas became central to driving the local dialectics.

As the semester progressed, the professors and other students learned that Charlotte was

willing to engage in a thoughtful conversation about any topic in any setting. No matter what the

course topic, Charlotte used perspectives from the assigned readings to frame her responses and

ideas during class, thereby demonstrating that she was prepared and eager to share her ideas. If

her interpretation of the assigned readings (or other media) differed from the interpretations of

her classmates' or professors, she expressed her disagreement openly and invited dialogue about

the differences. As a result of her confident participation, the social norms that governed the

class discourse and interactions were heavily influenced by her participation, ideas, and

positioning. Her agency played a central role in the local dialectics in classes and on field trips.

One way that Charlotte interacted with the local structures in the SLS to co-construct the

social space was through picking up and interpreting the perspectives and narratives of her

professors. Although she disagreed with their ideas regularly, she listened to how they framed

the classes and used those frames as a lens through which to participate. For example, in Alfred's

Faith, Ethics, and Ecojustice class, the students quickly realized that Alfred spoke and led the

class discussions through a Christian lens. The course materials, description, and the discourse in

class often assumed a shared Christian perspective and focused on the lives and experiences of

"American Christians." Charlotte, who spoke often about her Evangelical Christian background,

used this opportunity to position herself as an insider in the Christian faith and as a person who

used her faith to interpret the world around her.

For example, on the first day of class, Alfred asked the students to identify a "spiritual practice" that they would engage in regularly during the semester. While the other students chose more neutral or secular practices (e.g., meditation, art, etc.) Charlotte decided to memorize a Psalm from the Bible. She often made references to specific passages in the Bible during this class, and most of the conversation took place between her and the instructor. After a few classes, Alfred learned that directing questions towards Charlotte would enable a Christian-oriented conversation, whereas the other students were less willing to pick up this narrative as a tool for their own participation.

Similarly, Charlotte welcomed and participated in the Christian narrative that emerged in Pierre's Sustainability and Regeneration class. Pierre assigned a book that was written from a Christian perspective, and often used the terms "we" to situate himself and others in the room within a Christian community. In their first few classes he returned to questions about "how to incorporate God's story into the narrative of sustainability" and "how American Christians talk about resurrection" (Field recording, 9.18.14). Charlotte joined in this narrative beginning with first day in class, mimicking the "we" language to refer to the Christian community that Pierre established in the early minutes of the course. Charlotte's positioning as an insider in the language of a Christian worldview as the social leader in the class, along with Pierre's position as professor, sealed the narrative early on in this space.

Here you see the dialectical relationship between agency and structure at work: the professors, in their positions of authority in the classroom, privileged Christian narratives. These norms, then, influenced the way Charlotte interpreted the local rules of interaction, and she used her own agency to pick these up and participate in ways that foregrounded her own Christian

perspectives. This positioned her centrally in the dialectic, which made her agency effective in then further reinforcing the Christian norms of the space.

In the Environmental Policy and Politics course, Charlotte was also responsive to the narrative of the professor, David, and authored herself in that social space less as a Christian and more as an activist, protestor, and as a person who wanted to take action for change. In choosing to author herself in the classes as a person who could speak using the same language as her professors, Charlotte was able to then transform the social structures inside the classes as spaces that allowed her voice to be heard at all times. The community soon grew to expect that she would express her ideas related to every discussion. Towards the end of the semester, this shaped the space in such a way that the other students and professors would often look at her when they spoke, expecting that she would respond, and that her interaction with their participation heavily influenced how their ideas got picked up and interpreted.

In addition to using the professor's perspectives to position herself centrally in the local dialectics that informed class discussions, Charlotte also positioned herself as a proponent of local initiatives for change. In discussions or reflections in class, she often directed the conversation to examine how local communities and individuals within those communities worked for change. For example, in this exchange, Charlotte and Casey were discussing the impacts of a nearby GMO Seed Company:

> CASEY: I see all of these places having impacts, of course, both globally and locally. And I'm wondering what impacts you guys see these places having, on either scale….
> CHARLOTTE: Yeah, I think that is a broken system to me. That these farmers are basically slaves to the GMO Seed Company. They can't contribute any of their expertise, knowledge, skills—they're just following orders. I think that probably takes the joy out of it for a lot of farmers. Because I know a lot of farmers who are very prideful of their work, but I can see how it would affect the way they view their job.
> RAE: I've found myself wondering why we needed this system. Why we need these huge companies to grow all the seed for all the farmers in the country. Why can't we have a couple farmers right here growing seed corn that would go to the [local town] granary

130

and get put in bags that the local farmers could buy? Why does it have to happen at this big scale? What's the advantage of that?

CASEY: You don't get that specialized research and fine tuning at the small scale.

CHARLOTTE: But at the small scale I think you can address the needs of your local system. If your local system is having issues with fungus, then you figure out a way to deal with that. But not every place that the GMO Seed Company is selling to is going to have the same exact insects and the same exact funguses…. And it's not even just the US, they're selling the seed all over the world. So I feel like there's no way, even with that many pesticides on it, it can't be immune to everything. And I think that could be fixed by bringing it more local. (Audio Recording; 9.18.14)

As evidenced from this passage, Charlotte did not avoid discussing sustainability on a global or national scale. However, when she wanted to explain the mechanisms for change, she often did this by criticizing the shortcomings of large-scale systems and then bringing he conversation into the local scale to explain her perspective. She pointed to the problem with global systems, and how they could be improved through tapping into knowledge and familiarity of local systems.

Amber. Unlike Charlotte who engaged in all topics, Amber was more reluctant to participate unless the topic was directly related to something she was interested in. This was usually farming or agriculture, where she used opportunities to share insider knowledge from farming communities with her classmates, or to share her ideas about the change she would like to see in regional and national agricultural practices. She positioned herself as a listener, and often disengaged from the course discussions if she was uninterested in the topic. In this way, Amber contributed less to the social norms of the classroom space, rarely directing the conversation towards her own ideas. Although she enjoyed the classes and felt comfortable participating, it was not the way she preferred to learn:

ME: What parts of the program did you like the least?

AMBER: Reading and being stuck in a classroom. I learn the best by doing and watching things so it is hard for me to just sit in a classroom and get lectured at. I have to say though; this program has been very engaging especially during the classes where we are always open to discussion. (Post questionnaire)

When Amber did choose to participate in class discussion, she was reluctant to position

herself on the "side" of any idea being shared. She preferred to remain in a neutral position, and would often ask questions of others. For example, In David's Environmental Policy and Politics course, Amber was often silent during conversations that might expose her political leanings. Although her position with the rural hunting and farming community may have been interpreted to mean that she was more politically conservative than others in the program, she refused to position herself on the political spectrum with respect to any specific idea. This is a basic example of how Amber embodied the dialectic: she listened and observed to better understand the ideas on the table, but then used her own agency to position herself neutrally in relation to the structures, norms, and agents that were directing the dialectic. In doing this, she reinforced the norms of conflict avoidance and pacifism into the conversations when she chose to participate.

Amber adopted a similar mode of participation in Alfred's Faith, Ethics, and Ecojustice course. Amber grew up in a conservative Mennonite church, but started attending a Pentecostal church in college, and described her religious affiliation as "Mennocostal." Alfred noticed and commented on the tension between the Pentecostal evangelism and the Mennonite pacifism frequently during class. Charlotte also regularly discussed this tension from the lens of her Evangelical Christian faith. Charlotte expressed her frustration with the Mennonite community's devaluing of the Evangelist practices, and was openly critical of the Mennonite community's unwillingness to use their religious perspective as a source of activism. Alfred engaged in these discussions with her, and this tension became a central feature of the discourse in that class. Amber, in contrast, explicitly avoided participating in the discussions around this tension.

In the context of this class, Amber positioned herself as a mediator who had the desire to bring the perspectives of one group to the other, and to serve as a bridge between two groups. For example, one assignment asked the students to present a brief history of their faith tradition

and how it related to sustainability. During this presentation, Amber showed a video of a

Pentecostal church service, which included people "experiencing the holy ghost" and speaking in

tongues. As she narrated the video, she said:

> AMBER: We have a belief in the direct experience with the Holy Spirit. This is what
> makes our church unique. The Holy Ghost is when God's spirit pours out onto us. This
> gives us a certain kind of power. It's really hard to describe. I have been baptized by the
> Holy Ghost. So I have spoken in tongues. It's a really incredible experience…. And then
> I didn't speak in tongues for a long time after that. Being filled with the Holy Ghost gives
> you the power to do God's work. It gives you gifts like speaking in tongues and divine
> healing. So you could be praying in a language you've never learned. So I could pray in
> Spanish, and I don't even know Spanish. Something else is that there is a strong belief in
> gaining souls, which originated in revivals. So that's why we go out into the community.
> We get people to come to church and get them to know God. (Audio Recording,
> 10.30.14)

During this presentation I noticed discomfort from others in the room. Alfred, Pierre, Casey, and

Charlotte exchanged glances that showed their surprise and astonishment in Amber's faith story.

Amber, however, did not respond to this tension. Instead of positioning her Pentecostal identity

in contrast or opposition to the Mennonite tradition, or something that might cause tension with

the others in the room, she positioned herself as a neutral mediator who (a) was an insider in both

cultures, (b) understood and valued the perspectives of both, even if they were different, and (c)

wanted to work to help each community see the value in the other.

After class Alfred shared his reflection with me about Amber's story, saying that he had

wanted to bring up some pieces of Amber's faith tradition that he had questions about, but also

expressed that Amber's reluctance to acknowledge the differences between the Pentecostal and

the Mennonite traditions made it difficult for him to broach the topic. By assuming the role of a

neutral mediator between groups, Amber deflected criticism about the Pentecostal tradition and

instead focused on the opportunities for connection between the groups. In a way, she

circumvented this tension, using her own agency to position herself as a neutral mediator who

focused on "bringing groups together" instead of confronting conflict. In this way she similarly positioned herself centrally to the dialectic. She denied the tension that may have emerged as a result of the meeting between Pentecostal and Mennonite norm rules of interaction, thereby considerably shaping the local dialectic and the systems that emerged from it to make the interaction focus on the alignments and agreements between these two faith traditions instead of focusing on the conflicts and disagreements.

Sarah. Sarah's largest struggle during the semester was getting her ideas on the table when she felt like an outsider. She was positioned and positioned herself in contrast to the dominant narratives of many class storylines, which meant she rarely played a central role in the dialectics that produced the narratives and systems that informed the rules of interaction. The contexts she struggled with most were Pierre's and Alfred's classes, which she described as being "more suited for Christians." Sarah was reluctant to share her ideas during classes, particularly if she thought that her ideas diverged from her classmates' or her professors'. Part of this reluctance, she said, was because she felt her professors assumed the students shared a homogeneous Christian perspective, which Sarah was actively questioning. Because Sarah never shared this with the faculty in the SLS program, they often spoke to her as if she shared their Christian views on sustainability and the environment, thereby reinforcing her peripheral status.

Unlike Charlotte, who spoke openly about her faith perspective, and Amber, who identified openly as a Pentecostal, Sarah never revealed her own religious perspective in a class setting. When the SLS began Sarah was actively questioning aspects of her faith, although she had attended a church in her youth: "I would say I'm exploring what I really believe" (Pre questionnaire). I learned most about Sarah's faith perspective not during classes, but in one-on-one conversations and during interviews. In her presentation about her own faith background, for

example, she told the story of her childhood church, but at no point did she discuss her own personal experience as part of the community. She framed the presentation in terms of the ideas of her church and her family. This is in distinct contrast to Charlotte's and Amber's faith presentations, in which Amber and Charlotte made themselves central figures in the story.

Although Sarah was reluctant to position herself openly against the dominant Christian narrative in class, she devoted a considerable amount of space and thought in our interviews and questionnaires to discussing her discomfort with communities that limited their perspectives to one religious tradition: "The Christian perspective is not the "top" or "best" way of addressing environmental justice. I think a diversity of perspectives and religions are necessary" (Sarah, Post interview). Instead of positioning herself centrally in her local dialectic, she reflected on these encounters later, which strengthened her narrated dialectic. She focused on other systems.

She experienced this struggle in Pierre's class as well, which she relayed stories about in our post interview. I missed a few of their classes due to my own teaching commitments during the semester, and in this passage Sarah told me a story about a day that I missed.

> ME: Something else I wanted to as you about was that you felt that another one of the narratives that was being told there was that the Christian way to do things was the best way, and that narrative was privileged there.
> SARAH: I mean understand this Christian institution and they have the right to do that, it's not like they are not able to do that –
> ME: Right, of course not. I am just very interested in how you felt in that environment.
> SARAH: I just kind of feel we talked too much about virtue and morals. There's different ways of teaching sustainability I guess. One way is to say "how are humans morally bad and how has that caused our crisis?" And then another way would be like "how does society function in a way that is constructive? What are the bigger problems here and what are solutions to those problems?" Instead of "How are humans inherently evil?" Just because it was an academic setting, I felt like I didn't want to bring up my beliefs, because I don't want them to be graded on. Like we did that one exercise [in Pierre's class] "what is a good person?"
> ME: Oh, I wasn't there for that one either. Tell me about that.
> SARAH: We kind of all went around and said what we thought a good person was. So someone said "prayerful." A good person prays a lot…. And I kind of said "that leaves out all the people, I would add to that OR meditates or reflects, because that leaves out

anyone who is not Christian." And so Pierre was like, "oh can we put down spiritual instead?" And I was like "well, that still leaves out people." I said "you can include that if you keep in mind someone who is atheist might see that differently, like they might not think of their reflective time as spiritual." I mean I don't like brainstorming "what is a good person," that was not an activity that I enjoyed.

ME: And it was because you felt the definition that they came up with was not inclusive of how you envisioned a good person?

SARAH: Yeah. I don't think it's good to come up with the definition of a perfect person, just because it will be different for each person. I guess I agreed with the definition they came up with, I just didn't think that was where the focus should be. I don't think problems will be solved by being more virtuous people. For me it's like problems will be solved if the system and if society changes in a way that is different. (post interview)

Being a student in a classroom where she felt she was being graded for her ideas presented a threat to Sarah. The power dynamics between professor and student were real to her. She mentioned numerous times that she felt her grade would be lowered had she spoken about her different faith perspective.

In addition to pushing back against the dominant Christian perspectives, Sarah also struggled with what she saw as a dominant agrarian, rural perspective that devalued urban perspectives and action. In personal conversations and in our interviews she reflected on the dismissal of cities as a piece of the solutions to sustainability she felt during the semester.

QUESTIONNAIRE: In what ways do you feel like an insider or an outsider with respect to your ideas about sustainability?

SARAH: I like the city, and I don't think its evil. I think people can still be connected to nature if they are from the city, and that wanting to live in a city is fine. I found through the semester that agriculture was glorified and living in the city was looked down upon. (Post questionnaire)

This stood out to me when I was preparing for the interview. Many of the students dedicated most of their response to this item on the questionnaire to explain how their ideas were similar to the ideas of their classmates and professors. Amber in particular focused on their shared values and overlapping interests. Sarah's questionnaire, however, focused mainly on differences. I asked her about this in our interview:

ME: I asked you about how your ideas about sustainability were different or similar to people [in the SLS] and you said "I like the city, I don't think it's evil, I think people can be connected to nature if they're from the city. Agriculture was glorified and living in the city was looked down upon." That's interesting. Can you tell me how that happened or an example of how you experienced that?

SARAH: Sure. Wendell Berry was highlighted a lot which is great. I like Wendell Berry. But in a way there is this narrative where people move to the city because they're attracted to the success it will bring. And then the countryside [would be] deserted, which is true. But there's so much good in the city. Lots of different people can come together here and have conversations. There's so many different people intermixing and talking to each other and I think it's fine if you want to live in the city. I don't think I am abandoning my agricultural roots. It's not anyone's fault, because we are in an agricultural setting and it's natural to worry about that, it's natural to tell that narrative because you're living in it.

ME: In what ways did you hear that narrative being told?

SARAH: I guess through the Wendell Berry poems.

ME: When did you read those?

SARAH: In Pierre's class, and Alfred's, too. And through "homeless" book about how the next generation doesn't have a home and how we are not rooted in a place. Pierre talked a lot about how cities are overpopulated and how there should be a limit on the size of a city, and how if it gets too big then it will be destructive and doesn't work well. So and I think it's true that we definitely need more people interested in agriculture but I don't know. I also felt like, I don't know, I don't want people to feel bad for wanting to live in the cities…It seemed like the other students, like Franco, likes the city as well. He comes from a lot of different places. (Post interview)

Having different ideas from her professors presented a problem for Sarah. Although she disagreed, she rarely let this show during class. This gave Pierre no opportunity to respond to her ideas, and her perspectives were therefore not legitimized, or not taken up central to the dialectic. Her primary embodiment of agency in that context in response to ideas she disliked was silence. Unfortunately this allowed the narratives she disagreed with to be reinforced, thereby contributing further to her exclusion and frustration as the semester progressed.

Sarah's struggle to express her different ideas was part of her experience as a member of the larger SLS community as well. For example, in this segment below, she commented on how she felt pressured to use a Christian perspective as a means of participation:

SARAH: I think if there were more people like me then there would be a different community aspect. Casey had a Bible study and everyone was invited to join and

137

everyone went and I did too because I was like, "well, everyone is going and I don't want to be the one person not going." (Delay post interview)

Overall, Sarah's identity performance was constrained considerably by the dominant social norms during classes. She struggled to get her voice on the table and position herself publically in opposition to the norms of the space. Although she positioned herself as resistant to the social norms of some of the classes, this positioning did not result in as much transformation of the structures there because she was unable to contribute her ideas. The structures that operated within class contexts reproduced norms that she found problematic, but she resisted these structures through her own silent protest instead of engaging.

Franco. Franco positioned himself as a global citizen and big ideas thinker in classes. When professors asked about challenges to sustainability within the local watershed, he consistently moved the conversation out of a local context and offered a global scenario that usually stressed the importance of systems analysis at a large scale. In most cases, Franco engaged through listening, although he would contribute his ideas when asked, or if a topic was raised that he felt passionate about. This was typically something related to global systems.

For example, in this exchange the students were discussing the Brundtland Report, a foundational document in the sustainability movement also called "Our Common Future" (WCED, 1987). This class exchange was typical in that most of the conversation took place between Charlotte and the professor. In this conversation, however, the topic was about a global, international document about which Franco felt comfortable speaking. He positioned himself in the conversation as someone who wanted to consider country-level systems, and brought in examples from large-scales when people started using examples of local, individual action.

> PIERRE: I think what [the authors of the Brundtland Report] are trying to do in this is that we're not trying to question anyone's needs for survival necessities, but on a large

scale, when there is poverty in large amounts, people have to use environmental resources, people have to use them in a way that is for immediate use and not for longer term sustenance. But this is the tension here. These ideas on a global level as nations have tried to wrangle over environmental issues. We know we need environmental quality to improve so we have something for future generations, but at the same time we have needs for today to feed and house the people. How do we develop in a sustainable manner?

CHARLOTTE: Yeah. I think that's interesting. Because in the United States even our impoverished people have the choice more so than people in developing countries. We have the choice to make those sustainable choices, because we have options available, and we can do that for our lifestyle. But when they are trying to meet their daily needs, they can't think about conservation or preserving resources as much because they have to meet their daily demands. We have the choice to be more sustainable, but they don't necessarily have that choice because the structure is not in place for them….

FRANCO: This is one of the main reasons I have stopped to be optimistic about this whole concept of sustainability. Because you're talking about compromise. A lot of things would have to be compromised. For a lot of countries. You have to compromise trade. You have to compromise GDP…. Like in India, our biggest trade would be rice and tea. Tea: they have to alter the landscape in order to provide the product, and in order to do that it provides economy. So [they developed the landscape for growing tea] in order to develop the economy. So there's no way they're going to back to the natural landscape, because you're talking about altering the economy and altering development. So trying to be optimistic about the whole sustainable development, especially in a developing country, is very difficult. It's difficult to say "yes, we can be sustainable," and "yes, we can [continue with] development" is very difficult. (Audio Recording, 9.2.14)

In this passage, Charlotte's and Franco's responses to issues of sustainability in classes are typical of the way they embodied the local dialectic differently across the semester. Charlotte consistently considered the large-scale systems that influenced our local interactions, but situated her stories and reflections in a local context and made individuals who were working to meet their own daily needs the center of the story. Franco, in contrast, took the story to the global scale, removing individuals from the discussion and focusing on the challenges of transnational cooperation, transforming a global economy, and trade. As a result, the dialectics produced conversations that considered both local and global perspectives over time.

I noticed this pattern frequently during my observations, and Franco noted it in our post interview as well. When I asked him how his ideas about sustainability were different from or similar to the ideas of his classmates, he said "They wish to focus sustainability on a very small

scale in their local communities whereas I like to focus sustainability as the bigger picture" (Post questionnaire). In many course contexts, Franco's global perspective was picked up by the professors and integrated into the discussion. For example, if other students were using examples of individual actions or practices from the American Midwest and Franco provided anecdotes from his experiences abroad, the processors often followed up with his stories by asking him to expand or explain more. Franco inserted these global considerations, which often focused on social justice, into many of the classes, thereby expanding the focus of study outside the local watershed or community towards more global considerations. His agency in these contexts interacted with the social norms in the U.S. (and therefore also in the SLS) that privilege White American perspectives, but in his resistance to these structures and his recursive expansion of the discussions, he successfully transformed the class narratives to include a more global focus. This meant that although overall he participated less than some other students, his agency still played a fairly central role in the local dialectics in a majority of the courses.

In general, Franco's contributions to classroom discussions were welcomed by the SLS faculty. This was evidenced by his successful transformation of the focus of many conversations, and the professors' willingness to consider how experiences of those from other countries might impact the interpretation that was on the table.. However, his international perspective and experience occasionally provided barriers to his participation in the SLS, some of which negatively impacted his experience there. One of these barriers was when he was penalized in class for not framing his presentation for an American audience.

> FRANCO: So I was reading my feedback… and under "communication" Alfred was like "Your visuals were excellent. I really enjoyed the presentation. However work on the way you say things to an American audience. There were a lot of things that I did not understand because you need to learn to enunciate your words." …. How can you minus marks from someone whose accent is different from yours?…. I am trying my best. I'm not using a very strange vocabulary like I usually do…. I absolutely hated that moment. I

140

really didn't even want to go to class after that, because even my perspectives in class were just getting shut down. (Post interview)

Although Franco felt comfortable pushing back against American-centric discourses in class, his identity as an international student and as a Person of Color sometimes meant that he was positioned as an outsider by community members in that space. While he had come to expect this to a certain degree as an international student, each injustice built on the other, and he responded to these instances with frustration, anger and disappointment. Despite the numerous amiable interactions he experienced during the SLS, being penalized for having a non-American accent and different cultural funds of knowledge loomed larger than others, and he dedicated a considerable amount of time in our reflections discussing these challenging moments. This clearly impacted his learning and participation in this class in ways that did not happen in other classes, and the White American students were able to engage with the content of the course more easily because they did not meet the same cultural barriers Franco met.

Similarly, like Sarah, Franco positioned himself as a proponent of urban solutions to sustainability, and pushed back against ruralist perspectives when they came up in class. He had more success in integrating his ideas into the discussion, and often challenged these ideas in the context of a class where he felt confident that his ideas would become central to the dialectic. During one of these classes, they talked about drivers of environmental attitudes and an ethic of car for the earth. This is Franco's interpretation of this discussion:

> FRANCO: We were talking about this idea of having a relationship with the environment. [The professors and classmates were saying] that if you live out in nature that means you have a higher chance of being astute of environmental care. Which I think is absolutely crap, because I've lived in the city quite a bit of my life and I'm so interested in [the environment]. And my theory is that people who live in the city are actually people who do most of the environmental work at a certain aspect. In the city people have smaller spaces – they use things a lot more efficiently. They have public transportation. They have to walk everywhere they go. We don't have big properties where it's like "this is my land." You have to share your stuff and I think that bridges a

community itself because you know the people around you. And I just feel that people – people should stop criticizing people who are from cities. (Post interview)

Franco positioned himself in opposition to these narratives in class contexts, and unlike Sarah he was usually willing to challenge these ideas from his professors and classmates in class. In most classes he felt that his voice was valued, and that his ideas contributed to shaping the discourse. His participation in class discussions increased as the semester progressed, and as a result the professors and classmates often included more globally situated questions in the class even without his prompting, which is evidence that his agency shaped the local structures over time substantially. Overall he spoke positively about his position within the SLS community outside of the class he mentioned above:

> FRANCO: It was just four of us and we really had that positive connection with the professors and with each other. We built very strong relationships. That is still – that will probably last a very long time. That was really nice because, like it had the sense of community and sense of family and belonging. That's something that I really like, because I'm so independent and I've always been by myself. (Post interview)

Overall, Franco's interactions in the social space of the SLS provided opportunities for dialectical transformation and also presented considerable barriers to change. Through challenging the local narratives in the class contexts of the SLS, the norms were transformed in a way that brought a global focus to the program. In most spaces in class, he felt comfortable contributing to the transformation of the dialogue and therefore the structures through which they all interacted. In other contexts, however, the structures of racism and xenophobia were reproduced so strongly that he felt excluded from participation and transformation.

Field work. The students and faculty of the SLS took over thirty field trips during the course of the semester. The following section is organized by event. Although each student participated in the events described below, the students interacted and engaged with these field activities and assignments differently. For this reason, I selected data for each participant to tell

the stories of the events that they reported were most meaningful to them during the semester, and that demonstrated how they shaped and participated in the dialectic in these local spaces.

GMO seed company. Amber positioned herself during field trips as an enthusiastic participant who was interested in getting to know new people and their contexts and work. She described herself as a social learner, and in her post-semester reflections her memories that stood out were mainly about field trips when she had the opportunity to meet community members.

> ME: So why do you think the field trips stuck out instead of other things in the semester?
> AMBER: I'm a "hands-on" person and [like] being able to see things. I'm very visual. So being able to see things, to be interactive with people who are involved in it, I think that's why it sticks out. That's my kind of learning. Yeah, sitting in lecture is not [for me]. I space out a lot. (Delay post interview)

One of the ways Amber engaged with the group in the field was by sharing her love of nature with others around her. During the discussions with community members, Amber often interrupted conversations to direct the group towards an animal that she had spotted nearby. My field notes contain numerous descriptions of a group conversation followed by a short note about an animal Amber had discovered: "Amber found a frog in a nearby bush and invited everyone to look at it" or "On the way into the lumber mill Amber stopped to rescue a wet moth from a puddle." She positioned herself as a mediator between the human and animal world, and enjoyed helping those around her feel more connected to nature.

In the more formal conversations during field trips, Amber was most active and involved in the meetings that were related to farming or agriculture. She enjoyed sharing her insider knowledge about farming and hearing how practices varied in different locations. During these meetings, Amber also positioned herself as someone who was interested in hearing all "sides" of the story, and was very rarely critical of the practices of the people we met. For example, one of the field trips was to a large manufacturing plant that produces GMO corn and soybeans,

hereafter referred to as "GMO Seed Company." The company we visited is one of the largest companies in the world, holding a considerable percent of the global market for corn and soybeans. Because of Amber's familiarity in the farming community, she positioned herself as an expert on this trip, and lead much of the reflection and discussion that took place before, during, and after.

Many of the SLS participants were openly critical of the practices of the GMO Seed Company, and for many of them this field trip was a primary example of a visit to an "unsustainable" model of industry. Charlotte, for example, did not shy away from asking confrontational questions during the tour. She was familiar with the practices of the company, and put the tour guide on the spot. She asked questions like: "Why is there so much tension between you and [Other GMO Seed Company]? Would it be possible to merge? What are the implications of having such a large company taking up so much of the industry? Do you ever have communication issues with farmers? Why is [Other GMO Seed Company] the 'bad guy? What kind of research do you do on the pollinators?"

In contrast to Charlotte, who positioned herself in conflict with the company, Amber focused on explaining how the policies of the company work in practice with farmers. She used the occasion to explain to those who were openly critical of the plant why and how their system offered farmers economic opportunities. She worked to help the group see the company less as "evil" and more as a system that emerged from a need in the world for reliable products.

For example, the operations manager had mentioned how the GMO Seed Company used all parts of their product, diverting as much waste away from the landfill as possible. Their corn cobs were sold to a mushroom factory to make bedding for mushrooms. Unusable parts of the corn were used to make animal bedding. Amber pointed this out on the way home and said

"well, at least they're trying to be sustainable."

Although Amber was critical of the practices of the company and a proponent of sustainable farming practices, she was reluctant to speak about the company as disparagingly as Charlotte, for example. Amber spent her time helping the members of the SLS understand how and why the GMO seed company operated instead of focusing on a critical analysis of the company itself. She played the role of mediator between the GMO corn industry and those in the SLS who wanted to make agriculture more sustainable.

Neighborhood study. One field assignments as part of the semester required the students to investigate a local neighborhood by making observations, interviewing citizens about their concerns about local environment and sustainability issues, and finally using their data to construct a sustainability proposal to present to the local community. Pierre described the purpose of the assignment:

> To provide an opportunity to study the physical and social structures of a neighborhood in some detail, gaining skills in knowing what to look for when "analyzing" a new place, and in being able to propose solutions to sustainability issues in particular places. (Course syllabus)

Although each of the participants had unique experiences during this investigation, I will spend this section focusing on the story of Franco and his interactions with the local town of Marietta (pseudonym), where he chose to do his study.

Franco selected Marietta because it was close enough to reach on his bicycle. Franco conducted his observations of the town as well as a few interviews with local citizens on his bike. On his first visit, which was also his last, he had a few questionable interactions with local residents, two of whom informed Franco that Marietta was "the first White settlement in [the state]," which indicated to Franco that he was not welcomed there. He also met with a local resident who took pride in the fact that he had never stepped foot outside of the local town in his

life of over fifty years, again confirming to Franco that the residents were not interested in exposing themselves to unfamiliar cultures and customs.

On his way out of town, Franco was cut off by a sheriff who pulled his car in front of Franco's bicycle. He was scared. The sheriff informed him that there had been complaints from the Marietta residents of a suspicious person in the area, and asked to see Franco's identification, asked what he was doing there, and searched his bag. Franco was able to produce only his college identification. He explained the sheriff the reason why he had been in town, that the sheriff was welcome to call his professors, and that he had not trespassed on private property. After making a call, the sheriff let Franco ride back to the Field Station.

This experience took place in the first wave of Ferguson unrest that emerged in response to the shooting of Michael Brown by a Ferguson police officer in August, 2014. The national dialogue surrounding the shooting and the subsequent protests were highlighted daily in the media, and the country was becoming more aware of the heightened tension surrounding interactions with police and people of color in the US. Franco identified as a Person of Color and was well aware of this tension. This incident was particularly traumatizing for Franco because of the threatening interaction with the police officer. The racial profiling was something he was familiar with through his experiences in the U.S., but the direct interaction with the sheriff in light of the recent national unrest scared him.

In response to this incident, the faculty, staff, and students in the SLS reached out to Franco to show support. Casey requested to meet with Franco that evening to talk before a social event that was planned to check in with him and listen to his story. Pierre, who was the supervisor of the assignment that led Franco to Marietta, also met with him to discuss the issue and show his concern. The faculty changed a policy so that students should be required to go in

pairs or be accompanied by a faculty member to do future community engagement work. Sarah, Charlotte, and Amber also demonstrated similar support for Franco. In short, the community collectively denounced the act, and worked to position themselves in opposition to racism.

I also had a conversation with Franco about the incident shortly after it happened. He framed the story as a fairly common type of experience in his life as a Person of Color in the US. He recounted numerous stories about threatening interactions with White citizens near Simons College. For example, here he told a story about an interaction he had with a resident when he went to test local river water for an environmental science course:

> FRANCO: I bike a lot, and I always go to these very remote areas because I like exploring; it's what I like doing. And people would just always ask me what am I up to and stuff like that. I'm like (chuckle) I'm just biking; it's a bike path. (chuckle) What else am I going to do? These were like remote areas. I remember once I was doing this [water] testing work at the river. And then these people, I don't know, I think I'm pretty sure he had a gun on him; he comes out, he's like "What are you doing?" This is a river. This is not even his property. He tells me to get lost. (Audio Recording, 10.22.14)

These types of interaction were familiar to Franco living as a Person of Color in the predominantly White city where Simons College was situated. He also experienced racial discrimination in his work as a resident assistant on campus:

> FRANCO: Sophomore year when I was an RA I got thrown in with all the other minorities and international students all on one floor. That happened on a campus that states that they're "interculturally open." And when I requested, I'm like "You can put me on the White floor. I would love that. I would like to get to know them." But that didn't happen.
> ME: How did people there respond when you asked them about it?
> FRANCO: I told the director of intercultural studies about that, and she got really upset about that. I had meetings about it, but it got nowhere because like every other issue in Simons College, it gets nowhere. They said it's a very complicated issue and they're trying their best to deal with it. And honestly, they didn't tell me a thing about it. It really annoyed me. At that point and didn't even want to be anything related to residential life department because that's a very bad way to treat me. And I was the only international student working there. And I was doing a good job. (Audio Recording, 10.22.14)

Although Franco described his overall experience at Simons College positively, these

147

experiences were peppered with the constant struggles he faced as an international student and

Person of Color in the region. Franco interpreted this incident in a larger context of the rural

American Midwest, where he said that he often felt unwelcomed.

> FRANCO: So honestly my impression about the Midwest is terrible; I absolutely hate it. (chuckle) And it's sad because this is the only place I've really lived in America, so I'm not really getting a very good impression of it. I've been to Boston and I loved Boston. And I've been to Chicago. I feel like the more urbanized areas, I feel a lot more welcome. I see people who are a lot more open-minded, and I know I don't have issues there. Every time I come to areas like this, I have so many issues, and I just want to graduate and leave. Never come back. (Audio Recording, 10.22.14)

Franco did not return to Marietta, but did complete his proposal for a sustainability plan for the

town. His proposal was focused on strategies for making Marietta a more welcoming and diverse

area where strangers would feel comfortable moving in and creating economic growth.

> FRANCO: And that was really a downfall for me this semester; it was rough because I thought I was going to do a lot of work here. Now I just don't even want to get out there; I don't even want to bike around here. (Audio Recording, 10.22.14)

This disappointed him not only because of the racist encounter, but also because he missed the

opportunity to present his proposal to the local community like the other students.

Although from Franco's perspective this was clearly a systemic issue, the other members

of the SLS community (who were positioned as insiders there because of their race and culture)

did not use the language of structure and system to explain what happened in Marietta in the

same way as Franco. After the semester ended, I interviewed Casey and Pierre, who (you may

recall from earlier) had made special efforts to reach out to Franco immediately after the

incident, to show their support, and to consider implications for Franco's experience in the

program as a result. Here is an excerpt from my discussion with Pierre, six months after SLS.

> ME: I wonder if how that experience in Marietta might have impacted how he engaged in [his Environmental Problem Solving Project]. Do you have any other thoughts on that?
> PIERRE: ...I hope that he didn't have any [of] those feelings about other rural Midwestern Americans that he met here. But I really do think that the fact that over the

course of their project they visited people in their homes multiple times, on multiple occasions, to video tape them, to interview them, just to see what they do and talk with them. And feeling embraced by them probably helped heal a lot of that tension. And he certainly never gave me any reason to think that he felt like that sort of xenophobia was the majority experience he had. … We talked about, well if [you're] going to Chicago and spending time in Chicago you wouldn't necessary feel a hundred percent of the time that you're completely welcome there either. That it's a part of the human struggle is to welcome each other. Anywhere you go you're going to find these sorts of tensions. So I think that the project was crucial part of that reconciliation for him. (Audio Recording, 7.21.15)

This is a complicated response. On one hand, Pierre acknowledged the large-scale nature of racism and xenophobia that Franco experienced locally by suggesting that these racist structures exist outside of local spaces as well. One the other hand, Pierre also diverted the conversation away from the racial context and interpreted the situation through a more general lens of "human struggle." He downplayed the specific racial element of the dialectic in Marietta that led to Franco's experience, and instead reframed the conversation to help Franco see how his experience was one that everyone deals with to some degree.

When I interviewed Casey, he responded by pointing to the individual, local nature of the incident, thereby removing it form the larger temporal and spatial context of the xenophobia:

CASEY: I'm just really wondering why this happened to him. I shared his anger and frustration—and also felt very embarrassed. Because this happened in the community that I live. I was also kind of at a loss for words other than just to say, "There's still a lot of ignorant people out there that feel uncomfortable when they see someone who looks different than them." (Audio Recording, 7.28.15)

Casey demonstrated a sense of embarrassment and guilt that this incident happened in the same neighborhood where he lives. This denouncement of the racist act clearly positioned Casey as an ally. However, instead of acknowledging that this may have been due to systemic reproduction of racist norms as presented locally, Casey pointed to "ignorant people" as the source of the problem, thereby decontextualizing the incident from the larger narrative of White American supremacy and anti-immigration in the contemporary US social and political climate.

149

In line with Pierre's response above, Casey also suggested that the subsequent positive experiences in through the SLS might have served to counter the negative Marietta encounter:

> ME: Okay. So, how do you think—do you think that that experience in any way influenced his participation during the rest of the semester, or in the next few days, or in any way—did you notice?
> CASEY: He's an incredibly resilient guy. In the leadership meetings that he and I had together, he talked a lot about how he's had to be pretty independent a lot of his life, and that has led to him developing the ability to adapt well to situations and just kind of roll with whatever is thrown at him…. I don't think he would've been comfortable going back to do more observations at that location. But, other than that, I wouldn't say that it affected his participation in any way. (Audio Recording, 7.28.15)

In this response and in Pierre's above, the primary mechanisms for reconciliation were (a) Franco's resilience, and (b) subsequent positive experience in the rural Midwest and in the SLS. While it is true that Franco spoke positively about his overall experience in the SLS, he reported feeling nervous during his EPS project (more below), and was glad to have Amber and other White Americans accompany him, which gave him access to spaces where he wanted to work.

Canoe trip. Much of the fieldwork happened during a week-long long canoe trip to explore the local watershed. The students canoed and camped along the river for approximately 100 miles, beginning at the Field Station and finally canoeing into one of the Great Lakes at the end of the week. Casey, the program coordinator, was responsible for the logistics and accompanied the students during the entire trip. Other faculty rotated in and out along the way. The faculty and students on the trip stopped at dozens of sites to speak with community members about local initiatives to improve watershed health. The St. Francis watershed, which was the focus on their investigation, spans 4,694 square miles (71% of which is farm land) and empties into a Great Lake in the city of St. Francis.

During the canoe trip, Charlotte continued to position herself as an activist with passionate convictions. For example, at multiple points in the river we needed to take our canoes

out of the water to go around dams. One early morning we met with an employee of the

Department of Natural Resources (DNR) who explained how the dam and fish ladder worked.

We were overlooking the dam with our canoes on the trailer behind us. It was cold and rainy and

we were wearing ponchos. Charlotte, as we knew by this point in the trip, was critical of dams,

and approached the meeting that morning with the DNR representative with a curious but

combative attitude. One of the most lively exchanges in this mainly quiet discussion was when

Charlotte made clear her interest in removing dams in the St. Francis river:

> DNR LEADER: There are 200 dams on the St. Francis River. But it's a necessary evil
> because they keep invasive fish out of [Great Lake] and some of them create electricity,
> although not all of them make money.
> CHARLOTTE: How many of the hydro-electric dams on the St. Francis River could be
> taken out because they don't make any money?" [laughter from everyone due to
> Charlotte's suggestion that they remove dams].
> CHARLOTTE: [in response to the laughter] Go get the spray paint!
> DAVID: She's on it!
> ALFRED: You realize that you're joking with a government official about destroying
> government property, right? [laughter from group]
> CHARLOTTE: I'm just kidding. Sort of. [more laughter] (Field Notes, 9.11.14)

The response from the group to Charlotte's suggestion that they remove dams was reflective of

her already having established herself as someone who wanted to deface and destroy dams,

which she considered a way of spreading awareness about the environmental hazard that dams

presented. Although she did not engage in any defacing of public property, this was the type of

action that she often referred to as being important in the environmental movement.

Charlotte also often expressed that passion and a connection to place helped people make

change. In this passage, Charlotte commented on another person they had met on a field trip, the

mayor of a local town who had been successful in working for sustainability:

> CHARLOTTE: The mayor of that community was really empowered to change the
> public transportation systems to help citizens get around to work, and he redid some
> roads, and was really listening to what the systems wanted, and what they needed, and
> was promoting local jobs, and getting poor people out of the slums, and into work. It was

151

really inspiring to hear that when there's somebody who's really empowered in a powerful position, they can make really good change for that community. He sort of went against some other barriers that he had, and he was like, "you know what, some of the people who are more powerful than me aren't going to let me do it, but I'm going to do it anyway," sort of thing, and his community really benefited from that. (Post interview)

When Charlotte conducted an analysis of a place or problem, she was quick to point out the empowerment and determination of an individual as a main driver of change in that system. This passage also shows her dedication to fast action in response to slow systems. She appreciated that he took steps to circumvent barriers by "doing it anyway" without waiting for consensus from the community.

Although Charlotte often commented on the power of individuals working to make change in a local context, she was not dismissive of the challenges of working locally for change as an individual. The day after a visit to the gravel pit and a large solar panel manufacturing company, she commented explicitly in the debrief about the value of large-scale action:

> CHARLOTTE: Today was different than other days because we saw big scale things. We saw a big-scale solar panel company and a big-scale gravel pit. That changed my perspective a little bit. It shifted it more from the individual and what the individual can do and the impact of the individual to more the systems that we are a part of and have to participate in. (Field Recording 9.10.14)

Although Charlotte would readily acknowledge that large-scale, systematic change was important, she was most impressed by the actions of individuals within those systems who were using their knowledge of the system to work for more efficient and effective change. Her acknowledgement of systems was to (a) identify the source of the problems, and (b) define the context within which she (and others) could organize, mobilize, and work for change. The drivers of change in her narratives were individuals working against systemic problems.

Rooted and Grounded conference. Another notable field trip was a conference the students attended at a local theological seminary. The theme was "Rooted & Grounded," and

152

focused on the relationship between people, land, and environment:

> Many people are becoming increasingly aware of the intimate connection between the environmental crisis and our detachment from the land. In response, the church is called to root itself more deeply in biblical text in order to remember and imagine ways of living on the land that are restorative and reconciling. (conference website)

Students participated in the conference by attending sessions of their choice. After the sessions, the students reflected as a group with Alfred and Pierre, the faculty members who joined the trip.

Sarah responded positively to one of the speakers, who used sociological and theological perspectives to address the individual-focused narratives that he noticed in the church's approach to environmental work. I did not attend this session, but Sarah told me about it after the session ended, and brought it up again in our post interview.

> SARAH: For me, problems will be solved if the systems and society changes in a way that is different.
> ME: Okay, say more about that, what do you mean? Why is systematic change more important?
> SARAH: Well it was really cool to hear… there was a sociologist who talked at [the Rooted & Grounded Conference] about what the real issues are. He talked about where the church is focusing on in the climate change discussion, which is really cool. He analyzed all these different books and how valid they were, research wise, and where the discussion is going. He had this pie chart which was really interesting: the church tends to focus on waste and recycling and using reusable bags, and how as consumers we can consume less and that type of thing. But that's not where most of the energy is used. Most of the energy used is in production. So being a good person in the system that we already have will not save us. In order to be more sustainable you have to address where the problem actually is. It's not only how we act in our system, it's the system itself. (Post interview)

Sarah appreciated this sociologist's analysis of the systems that allowed him to find where the energy use was taking place. She resonated with his suggestion that we should remove focus on the individuals, and instead engage in systematic analysis and improvements in the system instead of focus on in "being a good person in the system that we already have." For Sarah, individual agency was constrained considerably by barriers that exclude some people from the decision-making process. To her, community cooperation was a more important mechanism for

change. As part of this same conversation, I asked Sarah how that happened:

> ME: It's a lot easier to make change in ourselves than it is in a whole system, so what do you think are the best ways to make change in the system? Knowing it is harder than changing our own lives?
>
> SARAH: That's really difficult. It's something that I struggle with but I think that realizing that working together with people I guess instead of just saying everyone has their own individual sin and they just need to address that and drop it. I don't think that's the right way. I think that working together with people and forming our community that operates differently. Doing an energy audit and trash audit where it's like: Where is the biggest problem here, and what needs to be addressed first? Kind of like what that sociologist did with what is being addressed and what needs to be addressed. First evaluating where is most of our energy going to, and how can we change that as a whole society. Being involved in that conversation and effort and things and supporting that, so it's not changing just individually but also like being involved in forming a different type of community. (Post interview)

Sarah's reaction to this speaker was nearly opposite from Charlotte's. Charlotte expressed irritation with the sociologist. Charlotte expressed acute dislike of this session because of the devaluing of the individual's role in his model of social change. The excerpt below is a reproduction of an exchange between Charlotte and Pierre during the post-event debrief. This took place outdoors at a picnic table, where we were joined by Amber, Sarah, and Franco. It is important to note that in group reflections (in the presence of professors) I did not typically contribute to conversation or ask questions because I did not want to interfere with the direction of the conversation. Here, Charlotte's reflection was so closely connected to my research interests I asked her a question directly:

> CHARLOTTE: The last session's speaker Ronny was totally bashing on the individual. He was placing all importance on the social and the society and peer pressure and structure and denying the individual any role. I mean I like that he used different scales and said they were all important, but then he totally bashed individual action.
>
> ME: How was he bashing individual action?
>
> CHARLOTTE: Well, he was talking about how it takes all these different scales for social change to happen, but then he only talked about the large global scale and bashed the individual.
>
> PIERRE: Well maybe he was saying that individuals are often the focus of these conversations. It's true that individual actions are often over emphasized when we're talking about social change.

CHARLOTTE: Yes, I totally agree that individuals are overemphasized, but you need individuals to make the system change. He totally ignored that. You can't change the system without individuals deciding to go make the changes. (Field Notes, 9.18.14)

Charlotte might not have had such an emotional response to this session if she did not place such a value on the agency of individuals who were willing to persuade, model, and mobilize for change. The severity of her response to this speaker suggested that excluding individual actors from stories of change was antithetical to her model of the sustainability dialectic. Although Charlotte was willing to say that individuals are not the only solution, she was still angered at the suggestion that individuals were not the drivers of change in a system. During this conversation between Charlotte, Pierre, and myself, Sarah did not express her appreciation of the speaker's message. She shared reflections with me privately after the semester as part of the interview.

Another part of the conference that Sarah and Charlotte responded to in a similar way came through earlier that day. We had just come out of a session, and I was sitting at a table with Sarah and Franco. Charlotte came into the room and sat down "in a huff" (field notes, 9.18.14). She expressed her dislike for the latest session, describing her discontent with the local theological culture and how she felt like an outsider. Here is a recreation of the conversation:

ME: How did you like it?
CHARLOTTE: I didn't like it. The [people at this seminary and at Simons College] talk about Evangelicals so negatively. I have known this for a while, and that's why I went to this guy's session. Look, I want to celebrate the world. Evangelicals aren't what [they] say they are. They think that Evangelicals are one thing, but at my church we are totally different. We aren't like the stereotypes that they have of Evangelicals at all. They think that Evangelicals are all the same. And we're not. They think that, like this guy in the conference said, that Evangelicals are individually focused. In my church we were sooooo about community. So much more than any churches I've ever been to [near Simons College] have been. But still, they think they're so community and peace oriented. But they exclude people.
SARAH (to ME): Charlotte and I have talked about this and we both feel like the [members of the local religious group] make us feel like outsiders sometimes. I mean, I am not [associated with the local theology], and when they have their networks and groups it can be exclusive. Like, if you want a job in the church, you get it "the more [familiar with the church] you are." Like, how [local] are you? The more [local], the

155

more chance you have of getting the job.
ME: I understand your frustration. It's no fun at all to be excluded, and even no more fun to feel misunderstood. That is no fun at all.
CHARLOTTE: Also, [they local religious group] says they're all about peace. But they only let people in who are like them. And then they don't know how to deal with people who are different than them. So when they have problems, the church has splits[1]. But in our church we push everything aside and focus on getting along with people who are different from us. They don't know how to do that. (Field Notes, 9.18.14)

By this point in the semester I had was aware of Charlotte's passion for her strongly held beliefs, as well as her dedication to being an agent of change in her community. I interpreted this strong emotional reaction as stemming from the juxtaposition of her desire to be a leader and her feeling of exclusion during the conference. For Charlotte, as an agent of change, it was imperative that she play a central role in the dialectics there and the conversations and storyline that emerged.

Both of these examples of exclusion—being excluded as an Evangelical Christian, and being excluded as someone who believes in the power of an individual—may have struck a similar chord for Charlotte. Both situations challenged her own ability as an individual and as an Evangelical Christian to make the change she wanted to see in her immediate community. For Sarah, she was clearly frustrated at times by feeling like an outsider in the local space, but the talk about placing the onus for change on community scale solutions resonated with her as someone who had trouble getting her voice on the table.

Franco did not respond to this particular session, but did share a different impression of the conference with me as we walked from one building to another for a coffee break. I asked him how his morning had been so far, and he expressed a dislike for some of the perspectives at the conference, particularly those that focused on the place-based, agrarian perspectives. Because the theme of the conference was "rooted and grounded," many of the sessions were talking about

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[1] Charlotte's reference to the "split" in the last statement was in reference to the church's discussion about a possible schism as result of polar perspectives on inclusion of LGBTQ pastor ordination and support for same-sex marriage among church members. Charlotte was openly supportive of same-sex marriage and civil rights for LGBTQ citizens.

the importance of knowing a place, knowing land, and knowing nature. Franco expressed discomfort with this perspective because it privileged some ways of knowing over others.

During our walk, he told me he didn't like the first session he'd seen because "Well, they have this idea that only farmers know the land. And farmers know everything. And if you're not a farmer you don't know anything" (Field Notes, 9.18.14). He went on to explain how he had trouble listening to rural people talk about environmentalism when they used more energy per capita than urban people due to driving and energy use. Amber spoke positively of the sessions she had attended, confirming her commitment to positioning herself as an insider in the local culture who was able to take their messages to the Pentecostal community.

Grove Estates. Mid way through the semester Alfred invited the students and faculty to participate in a real-time case study of an environmental problem unfolding in his local community. Alfred lived in a residential area just outside the city in which Simons College was located. The residential homes fell under county (not city) jurisdiction and as a result used septic tanks instead of the city sewer system. A report from a local environmental agency revealed that many septic tanks were failing, which was causing sewage to pollute the local river upstream from the city where Simons College was located.

One resident of Grove Estates, Craig, in efforts to mitigate the water pollution, wrote a proposal and acquired funding for the city to annex Grove Estates. This would mean the residents of Grove Estates, who were majority Republican, would begin paying city taxes. In exchange, the city would remove the failing septic tanks and build the infrastructure needed to connect the Grove Estate residents to city water and sewer systems.

Craig wrote the proposal, secured a considerable amount of funding for the project, and presented it to the city before sharing his plan with the residents. From his perspective, coming to

157

the residents with the mayor (a Democrat) already on board would strengthen the proposal's

chance of being well received. He did not anticipate the opposition the proposal received from

the Grove Estates residents. The residents organized a community group to rally against the

proposal, which was eventually defeated.

As it happened, the two groups of residents who were "for" and "against" the annex were

divided along political lines: those who supported the annex were largely on the political left,

and those against were on the right. The citizens against the annex rallied mainly around their

shared desire to avoid new taxes, and were distrustful of the information about the septic systems

that Craig and the Mayor used to communicate. The citizens who were for the annex argued that

annexing would be more financially sustainable long term (as many of the residents would be

responsible for replacing their own failing septic tanks if they were not annexed), and annexing

would also would mitigate the environmental harm to the local watershed.

As part of the case study, Alfred organized interviews with local citizens on both sides of

the debate, organizers from both sides, and the mayor of the town. The participants and faculty

who participated in the case study agreed that it was a fascinating opportunity, particularly

because the annex proposal had just recently been defeated, and the problem of the failing septic

tanks was still unresolved. Franco was quick to identify themes of exclusion and insider/outsider

dynamics a key reason the proposal failed by such a large margin.

> ME: So how would you feel if you were Craig, the guy who was trying to get the [Grove
> Estates annexed into the city]? In his situation what would you do?
> FRANCO: I'll put it this way, if I lived there, I know what it's like, I know the problems,
> I know the people – then I would probably have a better way of dealing with that
> situation. But the fact that I'm an outsider— I do not know exactly what's happened there
> and do not know their values. It's going to put me at – they're not giving me any
> advantage or anything. (Post interview)

Because I asked Franco how he would have responded to this situation personally, he considered

how his positioning might impact the proposal's success. From his perspective, he would not have much ability to make change. His comment "They're not giving me any advantage or anything" demonstrates a lack of optimism that his voice would be valued in the community. Franco had strategies for dealing with this, however. In this excerpt from his post interview, he explained how one might go about building the trust they would need to make a change:

> ME: By the end of that it was like Craig was trying to change a larger a system, like he was trying to change something that wasn't just in his own life but in his community and basically he failed at getting what he wanted – right? So do you think there could have been a different way to make that kind of change in the community?
> FRANCO: The one thing I should have asked him, is how well does he know his community? He may be very dedicated to support his company but does he know the people who live there? Does he know what's important to them? (Post interview)

Franco was aware that being familiar with one's neighbors was one potential means of working for change. As evidenced by this passage above, when I asked Franco specifically about how to make change at a local scale, he described a model of networking, trust building, and mobilizing. What Franco's reflection also points out, however, is that he was aware that this type of local community mobilization was not a form of action he was able to engage in in the local context of the SLS because of his outsider status as a Person of Color and non-American.

Sarah agreed with Franco's assessment, and in the reflections in the post-event debrief she focused largely on the breakdown of communication between the residents:

> SARAH: I think one of the big issues in the neighborhood was that there weren't relationships formed ahead of time. So there wasn't a way of gaging who would be my ally, or how do I talk to this person. And he said that one of the positive things that came out of this was that people were talking. (Field Recording, 10.2.14)

Sarah focused mainly on the breakdown of communication. Although she offered very little reflection on this case while it was happening, she offered a more lengthy discussion in our post interview at the end of the semester.

> ME: I am interested in hearing your perspective in general about the case study, because I

thought it was an interesting part of the semester.

SARAH: Yeah, I thought it was really encouraging because the first person we talked to, what was his name?

ME: Craig?

SARAH: Craig yeah. He was very intelligent and obviously understood that this would be good for the community to do. He came from the city and he is used to being on a sewer system, and he saw this as an obvious solution. So first talking to him I was like, "yeah why wouldn't people do this? This doesn't make any sense to me." Then talking to the people who were against it, it made so much more sense. Because almost everyone in the community is used to being on septic. That is how they grew up, or for them [with] young families would be more of an expense for them…. It makes a lot more sense that the community was used to their septic system. And so I began to think that if Craig went around and really got their perspective, and tried to frame it away that they would understand, I think he would have been more effective. It was interesting to see if you had something you really wanted done, first see what the community has to say about it, and then bring your issue around it instead of just like coming up with a plan and then just holding a meeting and saying "here's the plan."

ME: So why is that important to do?

SARAH: I think so your ideas don't get shot down. For him his ideas were just completely shot down because people didn't understand it. So I think it's important because if you want something done you have to frame it away or people would be like "okay I can relate this to something, this makes sense in my head." (Post interview)

In Sarah's reflection, she focused on the importance of building consensus around an idea to prevent the work from "getting shut down." She foregrounded the importance of dialogue and consensus building in the process of change.

Later Class Encounters. Later in the semester, Charlotte had a confrontation with the tension she dealt with earlier at the Rooted and Grounded conference. This confrontation resulted in some reconciliation with her Evangelical identity and the role of White Christian hegemony in North America. During David's class they read a book called *Buffalo Shout, Salmon Cry* (Heinrichs, 2013)*,* a non-fiction edited volume written from Native American and Christian perspectives. The book critically examined European colonialism, genocide of Native American cultures, the silencing of the Native American experience by White narratives, and the role of Evangelical Christianity in these events. During their discussion of this book, Charlotte shared new revelations about her own position as an Evangelical with respect to other religions:

CHARLOTTE: Chapter thirteen was really hard for me to read. Everything I grew up believing seems so false now. With like, what, ten pages? I was like "Wow. I don't want to be a Christian."…. There was nothing redeeming in this at all for Christians…. It's not like she's saying things that are false. It's just I've never thought about it from this perspective…. She was talking about how [Christians are] saying that the only way to truth is through Christ, which is a central doctrine to Christianity… I totally see what she's saying here, that by claiming that [only Christians have truth], you're saying that you're superior to other religions. I have no idea how to even talk about that. How do I legitimize other religions and say that they're important while also holding my own piece of the truth? That's impossible. It's a paradox. How can I claim something as truth, but then also say "these are also other truths" without saying I believe in everything? (Audio Recording, 11.11.14)

Charlotte's struggle with this "paradox" surprised the other participants in the room because she had positioned herself so firmly as an Evangelical until this point. Despite the shock factor, her willingness to critically engage with this part of her identity positioned her more firmly as an insider in the local dialectic as led by David, who supported this critical examination and was in a position of authority as professor to pick up this narrative.

Charlotte was critical of her own Evangelical background in a way that the dominant dialectic in the room encouraged— both the book they were reading, as well as the local theological perspective associated with Simons College, would have encouraged her to question her Evangelical loyalties. As a result, her agency became central to transforming the storyline and narrative in that space once again. The local dialectic thereby created a system of interaction that supported her critical reflection, and her own agency played a central role in that dialectic.

Over the course of the semester, Sarah started to take a few risks in challenging what she identified as a Christian homogeneity. One of these moments occurred in the same conversation about the book. In this exchange, for example, she was responding to the same book *Buffalo Shout Salmon Cry* that Charlotte responded to above. David and Pierre were the professors in the room, along with myself and the other students:

SARAH: Well maybe the crime is that [Native Americans] can't be a part of the larger

161

society without changing. They don't have a choice to be themselves separately, and they don't have a choice to be themselves in society. They have to put on a different role in a different setting that they shouldn't have to.

DAVID: Don't we all do that to some degree?

SARAH: Yeah, but with the dominant culture, some people have to put on something that is completely different from who they are.

PIERRE: Do you feel at home in what we have been calling the dominant culture?

SARAH: I don't know…. I was just thinking Christian dominant culture.

DAVID: Christian capitalism? Christian communism? Socialism?

SARAH: I don't know. Just Christian in general. There's a lot of [room for] celebrating holidays, and being who you are in the broader world than there is for indigenous people. They have to change who they are or put on something in order to gain success, which is wrong. I feel that the crime is that they can't be who they are in the broader system….

DAVID: I think more or less we all adjust to social situations.

SARAH: But some people have to adjust more than others.

DAVID: Yes. For some people it is more criminal.

SARAH: You have to dress like this, and talk like this….

PIERRE: That's why I asked that question, "Do you feel at home in the modern culture, or the dominant culture." Sure, we can easily assimilate. But large chunks of my life I haven't felt at ease in this world.

SARAH: But you still have your accent, and you have how you feel comfortable dressing, and you have—and I have, too—this Christian background, [which is] privileged in our society.

PIERRE: Aren't those the most important parts of our identity, though?

SARAH: [nervous, but firm] No. Someone who doesn't have [those characteristics] will feel like they have to change to reach success. Which is wrong.

In this conversation Sarah was addressing a specific idea: the exclusion of Native American identities and experience by dominant Christian European hegemony in North America. Although David and Pierre were explicitly supportive of challenging White hegemony in North America (e.g., numerous times in the program they explicitly denounced the history of Christian hegemony in Native American cultures), twice in this conversation they negotiated this idea as presented from Sarah. First David challenged her claim by making an appeal: "Don't we all do that to some degree?" With this utterance, David directed the conversation away from Sarah's critique of harmful Christian hegemony towards a more universal struggle all people faced.

In response to this negotiation, Sarah returned the conversation to the specific struggle of race, only to have the conversation re-routed again by Pierre to focus on how he (as another

White American male) has experienced an unease that paralleled the struggle Sarah was describing in the Native American community. Sarah openly resisted this narrative, thereby challenging the local presentation of hegemonic structures in the SLS. These moments were rare for Sarah, but when they happened they were notable. Her voice shook throughout the entire exchange. She introduced a new element of critical consciousness to the conversation.

Environmental problem solving (EPS) project.

Amber and Franco: Farm to Fork. Amber's highlight of the semester, in addition to making connections with farmers on field trips and forming close social relationships within the SLS community, was her EPS project. This was an assignment designed to engage students in (a) identifying a local environmental problem, (b) designing a plan to address the problem, and (c) implementing the plan. Amber and Franco worked on one project, as did Charlotte and Sarah.

Amber and Franco partnered with an organization called Farm to Fork, a group of local farmers who wanted to increase their customer base in the region and form a stronger local agricultural tourist economy. This was a substantial challenge, considering that they were situated in a region dominated by large-scale industrial agriculture. After initial contact and a few meetings, Amber and Franco offered to create a promotional video for the organization.

Amber and Franco visited eight different farms in the region, interviewed the farmers about their farms, and took video and audio footage to use in the video. They also interviewed Farm to Fork leaders to discuss their goals for the organization and the promotional video. A local state representative named Dale Avery helped Amber and Franco make connections with the farmers by introducing them and accompanying them on some visits.

This project drew specifically on Amber's unique strengths and interests: she was able to work with and among farmers, and she was able to bridge connections between farmers and

community members. She enjoyed visiting the farms, meeting the farmers, and helping them make connections in the larger community. She also secured a job the following summer as a result of her work on the project. Here is a segment from their presentation at the end of the semester to the SLS students and faculty. The video had just ended when this exchange began:

AMBER: So that was it! It was quite the adventure for both of us. I never worked doing a video. It was very frustrating; I'm not going to lie. But it was so rewarding. Just to hear everybody's stories, it was pretty incredible. We go to know a lot of the farmers very well, and I'm pretty excited for where this program is going.
FRANCO: It was also my first time going out into the field to shoot video. So I was a bit nervous about that, but we managed to make it work, so I'm happy about it as well.

Although Franco appreciated the connections he made through the project as well, he demonstrated less excitement about visiting the farms and working with farmers. He offered occasional short summaries of the effects on his learning and practice like this: "After working with Farm-to-Fork, I realized how important it is to support local farmers and so I hope to continue buying local food" (Post questionnaire), but a majority of his reflections focused on the technical challenges of the video production. For example, when I asked him "what was the most challenging part of your EPS project?" he responded that it was "Trying to cut down 500 clips to 3 minutes" (Post questionnaire).

In their final presentation to the SLS community, Franco similarly foregrounded the technical aspects of the video and less on the potential for the project to make change in the community. He presented his role in the project as mainly technical producer, and omitted the personal narratives about connections and personal experiences that were so characteristic of Amber's reflection:

FRANCO: The video is basically our biggest part of the semester. Just to give you an idea, if you've never done video, I want to give you an [introduction to] how it works. You're going to see a three to four minute video. And you're going to feel like "oh, that's nothing." But this is the stuff we did. Starting with pre-production, this is early October. We came up with a script. We had a story board…. Then we contacted the farmers and

gathered the equipment and software. We had to learn the equipment, and then go and shoot. Especially with the software, we were You Tubing tutorials about how to use it. And then we moved into production. So now we had our script done… and so we started shooting. We went to every farm. We kept a very strict schedule. We would shoot about an hour at each farm, get an interview, and even show the entire process of how they make their products. (Audio Recording, 12.9.14)

One of these reasons for his disengagement with the community development aspect of the video could have been his previous experience in Marietta. Franco suggested that the only reason that the local farmers gave him access to their farms was because of his "in" with Dale Avery, who helped them make the connections with the farmers. Here is Franco's description of a visit to a local farm called Liberty Acres:

FRANCO: At Liberty Acres, [the farmer] was very patriotic about America. [When we were at their farm] they asked a lot of questions about America they criticized the Obama administration and stuff like that. It was pretty entertaining, but at the same time he saw the work I was doing for him and I could actually see him being more accepting for me. Because when we showed the video at the Farm-to-Fork presentation, he kept looking at me and smiling and I was like, "okay, I've definitely made an impact on this person…." The only way I got this [was] because I knew someone from the inside and they accepted me. But if I was just a random person that showed up on their doorstep, I would get the whole Marietta situation all over again. (Audio recording, 12.9.14)

Franco acknowledged that he would not be able to do this work had he not had the endorsement from the local government representative. He expected to meet racism in these contexts, but suggested that having Amber there buffered its presentation to some degree:

FRANCO: Both of us are working with various farmers. And I would say yeah, I was concerned about that, but I was more satisfied because I was with Amber at least.... I felt like – yeah. At least with Amber I could communicate with people if there were any problems. (Field recording, 10.22.14)

Amber, in contrast, felt a strong sense of insideness with the local farmers. She expressed a great sense of efficacy in the project's potential to make change in the community. Amber began the presentation by introducing the farmers, their farms, and their work. During the presentation, Amber positioned their project as a mediator between farmers and consumers:

165

AMBER: A lot of these farms are very small scale, so a lot of people don't hear about them. So that's part of the vision of Farm to Fork: to bring notice to local farms in the county. Another big aspect of Farm to Fork is connecting consumers to producers. A lot of people don't know where their food comes from. You know, a lot of stuff on that table [points to snack table in the back of the presentation room] you probably have no idea where it came from. And so that's the idea with Farm to Fork: to connect the consumer to the producer and bridge that gap. (Field recording, 12.9.14)

During the presentation, Amber focused primarily on the project's contributions to increasing communication between farmers and customers and in strengthening the local economy. She evoked a deficit frame, explaining how most people were unaware of where their food comes from, which she described as a problem that the video and organization were trying to address.

Amber and Franco additionally presented the video to Farm to Fork members at a local city hall where the organization met regularly. When we arrived, Amber greeted the farmers as friends and began their presentation with "It's quite a pleasure to get to know you all!" She was effervescent and friendly. She became a heightened version of her normally friendly and gregarious self. She positioned herself as an insider in their community who knew the importance of communicating with their local customer base, and she understood their work.

Franco, in contrast, adopted a very different persona in the presence of the farmers. He spoke more carefully than usual. He spoke slowly and more professionally than he did in the SLS community. When it was his turn to present the video, he qualified the video with statements like "We really want to make this good for you, so if there is something you don't like, please let us know," and "If you feel we have misrepresented your farm in the video, please let us know." These types of statements placed him in a defensive position, as if he were preparing for conflict. Amber, in contrast, assumed that the video would be well received.

Charlotte and Sarah: Maple Glen retirement community. Sarah and Charlotte conducted their EPS project in partnership with a local residential retirement community called

Maple Glen. During this project, Charlotte and Sarah worked to conduct an environmental audit

of Maple Glen's practices (land management, waste management, energy use, food, etc.) and

then presented their findings to multiple groups within the retirement community: staff, board

members, and residents.

During the semester, I observed Charlotte and Sarah in numerous contexts working on

this project: during planning sessions with Pierre (the faculty advisor for the project), during

conversations with the Maple Glen residents, and also during presentations to Maple Glen groups

and the SLS community. Charlotte's work on this project confirmed themes in her participation

that had arisen earlier in the semester. For example, her frustration with (a) incremental change,

and (b) the fact that large systems are slow to respond to needed changes, was evident in her

interactions with others during the project. Below, Charlotte described how they tried to get

residents to replace the Styrofoam containers in the cafeteria with reusable containers, something

the residents had indicated on their survey that they thought was a needed change:

> CHARLOTTE: I'm learning how difficult it is to influence change [in] large institutions.
> Something as simple as buying—BUYING—a reusable container that will work for TEN
> people to TRY to use them is the most difficult thing in the world. Sarah and I spent three
> hours looking for a container, and then we finally found them, and then Daniel emails
> back and says: "I don't think this is the right thing." So I was like: "Okay! Then YOU
> find it!" It's just so frustrating. But someone has to do it, you know? (Field Recording,
> 11.19.14)

Charlotte came up against a barrier associated with working with others to make change, as

opposed to making the change happen herself. This, to her, was a barrier, because others were

not always as keen to take action as she was:

> CHARLOTTE: So it's just hard to be the motivator for change when it doesn't feel like
> people are excited about it. It's so much easier to work in a place where people are
> excited about what they're doing and want to change. And I think the people on the
> environmental committee want to see that, but they feel constraints, too, because they met
> with the people from the food service, and they're not interested in making these changes
> that the residents are interested in. So everywhere we turn to try to do something we hit

167

walls. And also it's hard to work with old people, it really is. Because they question and deny and want to push everything back because they want to think about it and say "I don't know if that's the right thing." So Sarah and I feel like we're pushing things on them. But I feel like they need that nudge in some ways, because otherwise nothing will ever get done. But who will do that when we're gone? (Field Recording, 11.19.14)

During her work on the project, Charlotte repeatedly expressed frustration with the lack of initiative from Maple Glen residents. Their lack of willingness to make change was a barrier:

CHARLOTTE: My takeaway…is a lot of times in order to expedite that process, you have to compromise. You have to kind of give up some of the things you were hoping for or you want, so that some of the more important things can be implemented. We talked about this [in class], but then my practice example is my EPS project, because let me tell you, working with old people is slow. They need time to think about it. They need time to go off on tangents. They need time to focus on that one thing they're going to focus on in a half hour in a meeting, because they're really concerned about it. (Post interview)

In response to this challenge, Charlotte became more dedicated to her own position as a "doer."

In the face of unwillingness to change, it was her responsibility to model how change is possible:

CHARLOTTE: I figured out we just have to do it. We just have to make that final push, and be the person who's like, "Okay, we're going to do this," then people's worries go away. We needed to be that bridge to get something started, then it was okay. It's like they sort of need that person who's going to take up the initiative, then first start it, then they're fine, and they can manage it themselves, and they can continue it. I think it was good for us to be encouragement in that area, and show them that you don't have to have every thing worked out before you do something. Some of those questions you have get answered once you start it. (Post interview)

In Charlotte's version of this story, the barrier to change was the people's unwillingness to take action for change. Her solution to this was to effect change herself, modeling, persuading, and assisting others in being able to take action in the same way that she was willing to do.

In addition to taking action herself, Charlotte looked for partners who were also willing to take immediate action without waiting for consensus among the residents and administration. The excerpt below was taken from an audio recording of a conversation Charlotte had with Sarah and Pierre about their frustrations with the process of trying to introduce non-Styrofoam containers to the cafeteria. Charlotte described her frustrations with how slow change happens,

and then, she described one of her closest allies at Maple Glen (Carrie):

> CHARLOTTE: I feel like the main disconnect is that the residents feel powerless. They don't feel that they can change the system that is in place for them. And in some ways that is true, it's going to be hard to do that. And that's the problem that the environmental committee is running into also because they feel discouraged that management isn't listening to them. Their opinion of the food service guy is that he doesn't want to budge on the Styrofoam issue…So that's a roadblock, so how do we get around that? I was talking to Daniel yesterday and I said I don't think we should waste our time trying to convince this guy. He has his mind made up. So what's another way we can address the issue from a different standpoint? Members of the environmental committee yesterday were talking about how they feel like they have Carrie on their side: she is a very powerful mover… and so in my mind I was thinking that they should be using that. And they are, but how can we motivate them to use [Carrie's power] in more productive ways? They feel like they are running into problems with management, and they are, but how can they go about that in a way where they don't feel like they are hitting walls all the time? I think that's part of the problem: the combination of them being hesitant to try things, and then when they do try to influence something, running into roadblocks. So obviously they'll be hesitant to try to make change.
>
> PIERRE: Have you had a conversation with Carrie about what sorts of things she feels she needs to be more motivated to act on this from a management perspective? Perspectives? Information? Data? What does she need to become more of a champion for this?
>
> CHARLOTTE: It's pretty obvious that she gets things done. She has a lot of power. She can just buy those containers out of pocket and make Maple Glen pay for them. I think she's a really good person for [the committee] to feel like they have on their side because she can do these things. We sent her that link and she bought the containers a day later. She's not wasting time. She wants to see progress happen from our involvement and so that's why she's so cooperative and communicative. (Field Recording, 11.19.14)

Charlotte was working out a strategy to figure out how to use Carrie's position to help the Environmental Committee accomplish their goals. Throughout her analysis of the problems and systems and Maple Glen, she often focused her attention on people who would take action without feeling the need to reach consensus, which would hasten the process of change. In this situation, Charlotte recognized a clear barrier to her efforts: residents feel powerless to change a large system. Charlotte's solution was to find someone who was willing to take action despite these barriers, which in this case was Carrie. In the end, Charlotte contributed the work that did get done to her willingness to act despite barriers and lack of consensus:

CHARLOTTE: Everybody had a different idea of what container they wanted, the system that was going to work, and were they going to be able to wash them in the dish washer was a huge thing we talked about for an hour. I was like 'yes, I know the industrial dishwasher you have. I use it. I know that it will work for this container.' [And they asked questions like]: "What kind of container do we get? Do we do it only at [one building?] Who do we include in this pilot program? How do we do it? Is the kitchen going to wash it? Are the [residents] going to wash it? Do [the residents] have to pay for it?" Sarah and I were like: "We're just going to start this, and it's going to be fine." Then we did it, and they were like, wow, look at this. We can do this. (Post interview)

Charlotte described a conflict between herself as a doer who was able to envision change and make it happen, and the residents who were slow to adopt change. When faced with this barrier, Charlotte's solution was to enter the system as an agent and model how change was possible.

Charlotte's final reflection on the EPS project also highlighted how she embodied the local dialectic. It was important to her that she play a central role in local action, because it was in this context that she could research, try, fail, and try again as an agent of change:

CHARLOTTE: I think I learned from my EPS project, you have to experiment. You don't know what's going to work, and you can research, and theorize as much as you want, but when it comes to actually applying a solution, you have to experiment. You don't know what's going to work, because there's a thousand other things you didn't think about in your research that are going to be put in play. I think that was a good learning lesson that came from that. I have to be creative and think outside the natural progression of solving a problem. (Post interview)

Although Charlotte did not deny that large scale problems needed large scale solutions, the dialectic through which she thought action was most effective was local. At this scale, she had access to systems, and could experiment with different approaches herself through trial and error.

Sarah had a very different response to the EPS project. Instead of focusing on the lack of willingness of individuals in the system to work for change, she stressed the importance of consensus building and finding solutions that everyone agreed with:

SARAH: After this semester, I realize that especially working at Maple Glen that each community is different and has their own challenges and everyone has their own opinion about what solutions would be best. And so I think the work of sustainability is in

170

learning about the community and what challenges they face. You could be a leader in something and take your project on and kind of sustain it and finding solutions that are unique to that particular community. I think that the "green things" are an after effect of learning about the community and seeing how they operate it.
ME: So why is it important to see how a community operates?
SARAH: I think so that change will last. I think it's easy to go in and say here is a way, you should all plant trees, [use reusable] containers and change all your light bulbs, whatever. But you'll need people there to continue it and sustain it and be passionate about it. I think that you can start a project but if the community is not behind what you are doing or understands it, then it can easily fall apart. (Post interview)

The barriers that Sarah identified to change in this situation were identifying goals that everyone shared. The dialectic she described was situated in the community. Although she was an actor in this dialectic because of her role on the project, she often minimized her own participation when she reflected on the project:

QUESTIONNAIRE: What was most challenging to you about your EPS project?
SARAH: Finding a cohesive goal, or finding out what it is we wanted to get out of the project. It was difficult to come up with something that would be the final product. (Post questionnaire)

Similarly, Sarah positioned herself not as a mobilizer, but as a listener. She framed her contributions to the project as communication with the people to conduct a thorough systems analysis that would allow their decisions to reflect the needs and wants of the community:

SARAH: I think I am taking away how to communicate with people. How to enter a situation and figure out what is going on. It's important to figure out how people operate and what they value before you try to do anything. I think the environmental committee really appreciated us because we sat through a month of talking about containers, instead of just saying "alright, let's get the ball rolling." So I think the biggest thing I am taking away is anytime I enter into a community I know first to hear them out even if sounds ridiculous. (Post interview)

Sarah stressed the importance of listening to everyone, and focused specifically on individuals and groups who may normally have been excluded from the consideration of the decision makers. She positioned herself as an advocate for others, not herself.

Overall, Sarah worked along with Charlotte to develop a plan in at Maple Glen to change

171

many of their unsustainable systems. However, their reflections on this interaction were quite different. While Charlotte focused on the barriers to their action plan and developing strategies to work through barriers, Sarah was more concerned with making sure all voices were being heard and that they reached an agreement in the process.

Part IV: Overview of Student Participants' Embodied Dialectics

Charlotte. Charlotte positioned herself as an activist, a doer, and a leader who was willing to conduct a thorough analysis of local systems, design a plan, and take action. As an agent of change, it was important for Charlotte to play a central role in shaping the narratives in her community, and to play a key role in group decision-making. Charlotte typically picked up the dominant narratives of her social context and used them to co-construct new social norms that allowed her to play a leadership role in local dialectics. She responded viscerally when she was excluded from any conversation or group, and worked to find a way back into the center.

Amber. Amber positioned herself as a mediator between worlds. She worked to maintain a position as a neutral mediator between (a) sustainable agricultural communities and traditional farmers, (b) the Mennonite and Pentecostal communities, and (c) the human and the natural world. Amber used social relationships with those in her immediate community as a tool for "bridging gaps" between these worlds that others often thought of as tension-laden and conflict-oriented. Amber was a savvy consumer of local discourses, and circumvented potential conflict by remaining neutral and working as a mediator between groups, and also by maintaining her insider status on both "sides" of any conflict.

Sarah. Sarah positioned herself as a quiet listener who valued hearing a diverse range of perspectives in any group setting. As an individual, she struggled to get her voice on the table and play a central role in shaping the norms in the local dialectic. She was particularly sensitive

to positional dynamics between herself and her professors, who often picked up and reproduced structures that she described privately as problematic. Sarah also positioned herself in her relationship with me as a critical analyst of community dynamics, and she often used our conversations and interviews to expose and discuss the dominant narratives that emerged from the dialectics in her local context. In most local dialectics Sarah's agency was peripheral.

Franco. Franco positioned himself as a global citizen who was interested in examining problems of sustainability from a large-scale perspective. As a non-American and Person of Color, he pushed back against American-centric and White narratives that were sometimes picked up and reproduced in the local context of the SLS and surrounding communities. Although he was able to play a central role in transforming local discourses in the SLS classes, he was positioned as an outsider by many local citizens. In some situations, Franco's agency played a central role in the local dialectics; in others, he was positioned as an outsider.

CHAPTER 5

RESULTS: STUDENT PARTICIPANTS' NARRATED DIALECTICS

As you may recall from reading the conceptual framework in Chapter 2, *narrated sustainability dialectics* are the way students describe the process of change for sustainability with attention to how agency and structure interact. These narrations are based primarily on data taken from interviews and are often situated in abstract contexts. Overall, findings suggest that the participants' narrated dialectics were reflective of their lived experiences in the local context of the SLS. Although I assume that experiences that took place before the SLS (as well as experiences I was unable to observe during the SLS) also contributed to shaping the way they envision the process of social change, their actions and interactions in the SLS provided some explanatory power for their imagined models of social change.

In this chapter, I share pieces of our interviews that best demonstrate the characteristics of each participant's narrated dialectic. During the interviews I asked questions about how change for sustainability happens at different spatial scales (Appendices A-C), characteristics of sustainable systems at different scales, the barriers to change, and their role in the process of change.

Charlotte

Overall, Charlotte's narrated sustainability dialectic, or the way she described the process of social change for sustainability, was spatially bounded within the local community scale, and she situated agency within herself or other empowered individuals. The systems she identified as targets of change were systems to which she had immediate access. Social change materialized locally and was driven by empowered and passionate individuals who were willing to take action for change, persuade, and mobilize others to do the same. In her model, the main barriers to

change were (a) people who were slow and unwilling to take action, and (b) large systems which

were unresponsive to local needs. Charlotte was explicitly skeptical that agency enacted in large

groups in large systems would be successful due to (a) the rigid nature of large systems, and (b)

those systems lack of connections and responsiveness to local issues and problems. Figure 5

shows an overview of Charlotte's narrated dialectic.

Figure 5. A visual model of Charlotte's narrated sustainability dialectic
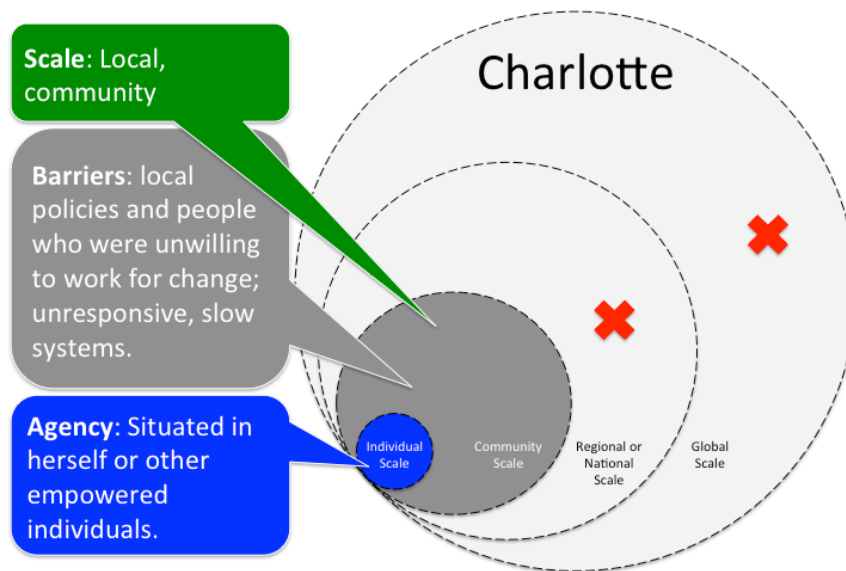
Scale. Charlotte described the process of social change for sustainability at a community

scale. Her stories of first-hand experiences as well as hypothetical stories about how change

might happen were bounded within local groups and organizations to which she had access. She

often stressed that knowing one's local place was a prerequisite for action: "Being invested in

place is how you learn to care about and empower it" (Charlotte, Post questionnaire). This focus

on the local scale in her narrated model is reflective of her engagement with local issues that

emerged during the SLS. Even when speaking about global issues, Charlotte returned to the local

scale to situate her stories of passionate individuals working for change.

Charlotte may have stressed the importance of place-based action because it allowed her

175

access to the systemic analysis she described as necessary to effect change. If the agent had access to the systems, she could conduct the analysis necessary to mobilize and work for change in that system. In Charlotte's narrated dialectic, she was often the actor who did this:

> CHARLOTTE: If I am going to form my own program or, you know, impact my community in ways that I'm passionate, I need to know how things work and the ways that they're addressing the economic, and social, and environmental issues that are all contributing to problem. I think being a part of non-profit organizations, or volunteering, or picking something that you're passionate about and learning how that system works is really important. (Pre interview)

This segment demonstrates a few different components of the way Charlotte narrated the sustainability dialectic. First, she described a familiarity with local systems as being key for their analysis and eventual transformation. She was explicitly skeptical that working for change in large systems would lead to meaningful change because these systems were out of touch with the local knowledge needed to understand the root of the problems. This section also highlights how Charlotte's stories often stopped at the action point. Her stories rarely articulated a mechanism for change beyond the point of engagement. She omitted outcomes. Instead, the focus of her narrated dialectic was on the actors themselves and their strategies for impacting local systems.

Agency and mechanisms for change. The segment above highlights another theme that emerged from Charlotte's interviews, which is that within her narrated dialectic, agency was firmly situated in individuals (see Figure 5). In her narrated accounts these often took shape in terms of hypothetical individuals who were not unlike herself: passionate, enthusiastic actors who were empowered to work locally to persuade and mobilize others.

Charlotte had ultimate confidence in the ability of individuals to educate themselves and work to make change happen. This is not to suggest that Charlotte did not acknowledge a need for change at larger scales, but when I asked about impacting large-scale change, she often described individual dispositions or ideas needed to make large-scale change happen. For

example, when I asked her about the best way to make change in the world (a question which specifically targeted the global scale) she mentioned the importance of "thinking globally:"

> CHARLOTTE: Do not give up hope that solutions can be addressed both at the local and global scale, using a combination of social interactions, technology, human ingenuity, and present knowledge to make informed decisions about the future and consider alternative options while we still can, before we are forced to…. Remember your place and work locally, but think globally and be informed about what is truly going on in the world and ways in which relations, practices/habits, and lifestyles can be improved. (Post questionnaire)

Although Charlotte acknowledged different scales when asked about the world context, she consistently returned to the local scale and told stories of impassioned individuals working for change when she provided examples. Her numerous first-hand experiences with local activism meant that she was able to describe hypothetical processes of change in great detail. To Charlotte, the world's problems were best tackled locally where she could change them herself.

Within this local scale, the mechanism through which this empowered individual (often herself) effected change was through persuasion of others. Persuasion was a powerful driver of change in her dialectic. She often described her own actions as having the effect of influencing others to either change their actions or to think differently about the consequences of their actions. She stressed the importance of needing a person who "cares enough to share [sustainable] practices with others" (Pre questionnaire), and was willing to model sustainable practices and actions for others in the community.

Although Charlotte occasionally mentioned consumer practices, the majority of her stories of persuasion focused on civic participation, mobilization, and community organizing. Persuasion of others was key in her description of these civic practices:

> ME: Do you see any relationship between citizenship and sustainability?
> CHARLOTTE: Yeah, definitely. I think by looking out for other citizens, for me that looks like showing them how to be more sustainable…. Because that's something that I have to offer that other people may not know about or may not think about as much as I

do. So it's a way that I can connect with people, and a way that I can heal, and also share what I think is important and what I think needs to be a part of a community. (Pre interview)

Persuasion meant modeling sustainable practices and ideas for others who may not have had the chance to consider the ideas before she brought them to their attention. This focus on persuading others to change individual behaviors was often accompanied with a strong commitment to systematic change through action and civic participation. In this passage, for example, Charlotte focused on her role as an individual in creating community-scale systems and networks:

> QUESTIONNAIRE: What is the best way to make your community more sustainable? CHARLOTTE: Do not keep my passions, practices, thoughts, to myself but rather spread these to others with fierce compassion and genuine concern. Volunteer and remember that money isn't everything. Make sure that interracial, socioeconomic, intergenerational activities are provided for citizens of my community to provide spaces for relationship building, idea sharing, and fostering authentic community. Emphasize the need for individuals to spend time outdoors, participating in their community by attending politic events, doing a river clean up, and learning more about initiatives/ movements in the area to support. Buy from local farmers and businesses to promote local economic growth, know your place, care about your watershed. (Post questionnaire)

Although the agent of change in Charlotte's accounts was often herself and other empowered individuals, she did sometimes acknowledge the limitations of persuasion. In this excerpt below, for example, Charlotte acknowledged barriers to sustainability outside of personal choice:

> CHARLOTTE: [Sustainable consumption] can't be a priority for people who are low-income and don't have a choice. …I have the option of making it a priority because I have the resources, and the money, and the power to make that decision, but what I think is hard for me is how do I share that with people who really are stuck in that system and don't have another option? (Post interview)

Charlotte acknowledged the limitation of persuasion where structures (like inequitable distributions of power and wealth leading to poverty) competed with persuasive agency. However, notice that here, the question she ended with was still focused on how to mobilize through persuasion. She focused on how to make herself a more potent agent of change when faced with these barriers, not how to change structures that would change systems of poverty.

Empowerment. According to Charlotte's narrated dialectic, in order for an individual to persuade and mobilize others to make change, that individual had to feel empowered. In this segment, I asked her what actions were necessary to make change possible: "I need to feel empowered, use my personal and practical skills, continue to fight for a sustainable future even if it's discouraging, and be a leader in my field" (Post questionnaire). One example of this was evident when she talked about her roommate Heather (pseudonym) and how she would like to help Heather retain hope when faced with large systems:

> CHARLOTTE: My other roommate, Heather, literally has no idea about sustainability. It's not even on her radar. So she is going to be in a class next semester called Roots of the Environmental Crisis. She's going to be learning about these big systems, she's going to be asking me a lot of questions, and I'm so excited for her to be learning about these things, but I realize my responsibility to help her know that there's hope and she can be doing things to be more sustainable…. There is a whole variety of people in that class from all different majors, and all of us really enjoyed that class, and felt really hopeless after. You learn about a lot of hopeless systems, but I'm hoping I can help her see the ways that she can do something to help that change occur…. People relate to [modeling the behavior for them] a lot better than just you telling them what to do. I have done that with Heather in the past because she's one of my really good friends, and it doesn't work with her, so I realize I need to try different approaches. (Post interview)

There are a few notable components to this explanation. First, this is one example of how Charlotte's placement of agency within individual action was not due to lack of interest in the systemic nature of problems she wanted to solve. However, as evidenced by her response to the Roots of the Environmental Crisis course above, she found discussion of large systems overwhelming and "hopeless." In this passage below she also reflected on this challenge of losing hope:

> CHARLOTTE: I took a class Roots of the Environmental Crisis, and some other kind of like doomsday classes. Really, it really took a toll on my hope for the world, and the impact that decisions and changes can have. That's something that I still struggle with, I think. Because since I'm a big-picture thinker, sometimes the issues that you have to deal with when you're thinking about sustainability are so big. How do you break that down? And what are like the roots of its cause? And, you know, there's so many factors that play into it that it's just so overwhelming to try and even delve into it all. (Pre interview)

179

This is an example of how Charlotte engaged with the systemic problems of environmental and social sustainability: she acknowledged their existence, but focused her efforts locally. From her perspective, working through local dialectics gave her access to the systems she needed to analyze, and allowed the actor to tailor her actions to be more effective. Having local access to the systems she wanted to change also gave Charlotte opportunities to fail and try again. In the passage above about working with her roommate, for example, Charlotte tried to tell Heather about sustainability, but failed. Through this failure she concluded: "I need to try different approaches." She predicted that having local access to the people and systems that she wanted to change would give her opportunities to try again, thereby lessening her sense of hopelessness in the largeness of systems and work for change within her reach.

This aligns with her frustration with working in the Maple Glen retirement community. She was frustrated with the slowness of a system even as large as a retirement center, and worked to find individuals who would help her circumvent the barriers that came with working with large systems.

Conflict. The excerpt above about Charlotte's roommate highlights another component of Charlotte's mechanism for social change: conflict. When I asked Charlotte what community meant, she included a willingness to engage in conflict and argument:

> CHARLOTTE: To me community is a supportive community that helps me in time of need, has similar values, makes me feel comforted and loved while also not being afraid to challenge and disagree with me when needed. (Post questionnaire)

This part of Charlotte's subjectivity is not in line with the local theological approach to community engagement, which often prefers conflict avoidance. This might be why Charlotte positioned herself as an outsider when it came to the dominant faith discourse in the SLS. Charlotte shared numerous examples of how social change required struggle and conflict in her

interviews and questionnaires. She often couched these stories in terms of struggles and

hardships she knew were inevitable in this sort of work.

> CHARLOTTE: I think a big part of being in community and sharing about sustainability is compromise. You have to know that you're not always going to get your way, and that there's always going to be people in the way that are trying to push back against the progress you're trying to make, and that sometimes compromise is the best you can do. But, I mean, it's good enough to make a difference. So while I would love to see the entire state look like [it does here], I know that's not going to happen. So I think it's important to keep a realistic outlook, but also still push for change, but know that sometimes that looks different than how you want it to look. (Pre interview)

This nuanced understanding of change at a local scale was typical of Charlotte's narrated

dialectic. Because she used many examples of personal experiences to paint a picture of how she

envisioned change, the mechanisms for change in her narrated dialectics were most clearly

articulated at a local scale. In this story, individual agency was always central to the dialectic.

Barriers. The barriers to sustainability Charlotte most often identified were 1) change is

slow in large systems, 2) people are unwilling to change, and 3) people are uneducated or

unaware of the problems. These next two passages are examples of how she articulated these

barriers to social change for sustainability in her own life, her community, and the world:

> CHARLOTTE: Systems are difficult to change, especially large ones, because they require thinking on long time scales and change is slow. Societal pressures and expectations prevent all voices from being heard and all perspectives from being considered. People are ignorant, in denial, uneducated, or misinformed-people need to know what the issues are and what they can do…. Change takes time. It is slow and frustrating and annoying and monotonous. But it is also beautiful when little steps are taken in the right direction or people continue to feel empowered despite the odds being stacked against them. What I learned most from SLS is that vision, visuals, purpose, and appeal to lifestyle/values are the best way to reach people if you want what you say to have a lasting impact/truly make them change. And follow up is key! Keep talking to them about it and bugging them about it! (Post questionnaire)

This passage is notable for a few reasons. First, it is just one example of Charlotte's frustration

with large systems' slow responsiveness to problems. Her takeaway from the Environmental

Crisis course—that changing large systems was "hopeless"—may have contributed to her

bounding her narrated dialectic within a local context in which she could enact agency herself: she did not need to rely on slow systems to endorse change, and she could begin action immediately. This passage is just one example of her explicit skepticism that targeting large systems was the most effective use of agency; she preferred small, individual actions.

Amber

Overall, Amber's narrated sustainability dialectic was spatially bounded within the local agricultural community scale, and she situated agency within herself or other neutral mediators who served as boundary crossers between the worlds of traditional and sustainable farmers. The systems she identified as targets of change were traditional farms that created excess waste, used excess energy, and prioritized profit over stewardship of the land. In her model, the main barrier to change was the breakdown in communication between sustainable and traditional farmers. Social change materialized locally when mediators, like herself, who were insiders in both the sustainable and traditional farming communities, worked to help groups come together and facilitate dialogue between them. Figure 6 shows a visual representation of Amber's narrated sustainability dialectic.

Figure 6. A visual model of Amber's narrated sustainability dialectic
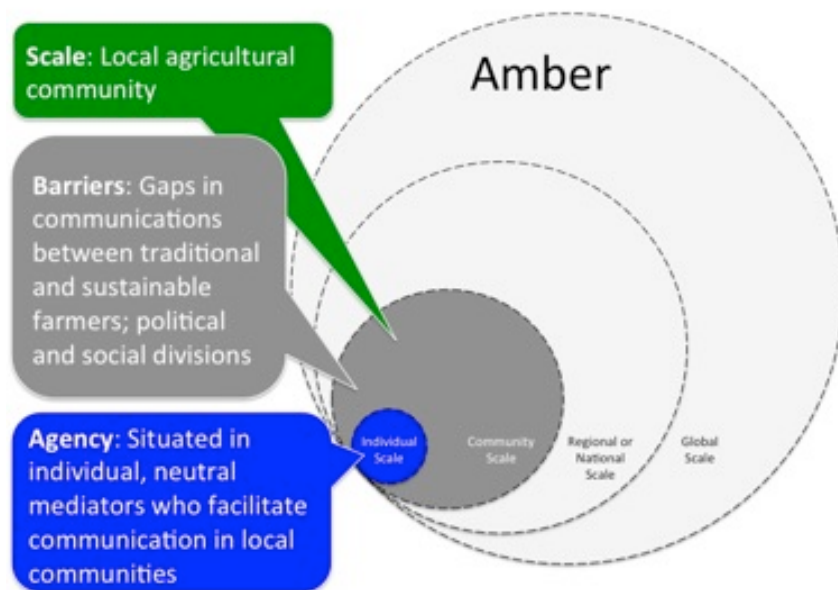
Scale. Amber's narrated dialectic for sustainability was situated in the community scale.

She described traditional agricultural practices as the largest driver of unsustainable systems.

This tension was consistently situated in the context of local farming communities. Although

these problems spanned regional, national, and global scales, the dialectic itself, or the process of

change, unfolded locally in her narrative.

Amber's stories that I used to piece together her narrated sustainability dialectic were

quite detailed when contextualized in local farming communities. Some of our most vivid

exchanges during interviews were when she was describing the local practices and systems of

sustainable farms. However, when I asked her how change happened globally, she evoked a

"ripple effect" (Miller, 2016) mechanism that would allow these practices to be adopted on a

large scale. She maintained her commitment to the ripple effect model across our interviews:

> AMBER: If [sustainable agriculture becomes] a practice now, hopefully it will carry on
> through generations and it will still be alive and maybe even enhanced in the future. You
> see things just start out with something really small and then all of a sudden it's just like
> this huge thing. One example was the farm [where I worked] last summer. They started

off with just one little tiny farm and 60 head of cattle. And now they have hundreds and they have three farms that they've bought. I feel like it starts out small and then it gets bigger… But hopefully that will carry on and just get bigger as it goes. (Pre interview)

Amber's narrated sustainability dialectic contained a more thoroughly articulated mechanism for the change at a local community scale than it did a larger scale. She often also omitted discussion of systemic considerations like policy change, how different geographical, cultural, and political contexts may respond to sustainable farming differently, or barriers to sustainability at a large scale. Her dialectic focused mainly on the decisions and practices of individual farmers.

Agency and mechanisms for change. Amber situated agency in herself or other individuals who were willing to serve as mediators across groups, start dialogues, and remain open-minded. Agency was also situated in individual farmers who were willing to adopt sustainable practices, but this was typically an outcome of the more central agency of the mediator. Descriptions of agency most often emerged in her narrated dialectic in terms of dispositions and actions of individuals that would be necessary in order to encourage farmers to adopt sustainable practices, and in order to encourage groups to listen to each other.

Because political divisiveness was a barrier to change in her model, it was important for the middle-person to remain politically neutral. Amber positioned conflict and argument as the antithesis of communication. In this case, conflict stemmed from politics, which she described as something she avoided: "I just try not to get involved" (Post questionnaire). Staying neutral was imperative for the change agent, because positioning oneself on either side of an issue would hinder communication with half of one's audience.

In Amber's narrated dialectic, change was often initiated by an individual who had her "foot in both groups" who mediated the cross-group conversation. In this excerpt, I asked her how she envisioned handling a situation in which she was working with groups who disagree:

AMBER: Well, I'm a person who likes to make everybody happy. So I think, I'm always a person who's kind of in the middle of things. I don't sway one way or the other. You know, I can see things from both perspectives and so I try to find that common ground, one that other people can relate to and compromise. (Delay post interview)

This quote is quite representative of Amber's approach to dialectical transformation. She considered a neutral middle-person a key component of the dialectic. This person would have knowledge of both sides, remain neutral, find common ground, and facilitate a dialogue between groups. She described the ideal outcome of these conversations usually as "changing minds," although sometimes she described situations in which the dialogue ended in unresolved conflict, which she understood as part of the process.

When Amber provided examples of change for sustainability from her past (as opposed to abstract imagined stories), these often involved difficult conversations between farmers she knew personally, where she was able to help them consider the pros of sustainable farming. In this excerpt, she described an exchange between herself (a proponent of sustainable agriculture) and her father (a traditional corn and soybean farmer).

AMBER: I think that being a middle person is a wonderful yet challenging thing. It's challenging because you're trying to bring together two sides and sometimes … most of the time … those two sides will not see eye to eye, and it's really hard to get them to do that. But the benefit of being the middle person is you can bring two sides together. You're building that bridge to fill the gap between the two sides. Like even just like being home now I keep having conversations with my dad about like farming and irrigating and tiles[2] and he opens my eyes and says "it's not that simple," and I'm like "I know but still."
ME: What is he saying? What is not that simple?
AMBER: Right across our creek here there's a farmer who lived down the road. We know who he is. And he has put in a radial irrigation system (the one that stays in one spot and spins around). And I was like "I don't know why he didn't use 'blah blah blah.' If there are tiles in there, there's no reason he should be 'blah, blah'…" You know, I'm going off my tangent here. And dad is like "Hey if I had however many dollars I would surely get one" and I was like "Why?" We never really finished the conversation but I was talking to him about the biology of how when you put a tile in [the ground] it lowers

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[2] In this excerpt, Amber refers to "tiles," which are plastic drainage tubes that are buried under farm fields to divert water into ditches. The region where her father farms (and much of the rest of the Midwest) was originally wetland and needs to be drained in order to make the farm land suitable for growing corn, soy, and wheat.

the water table, but it lowers it too much for the dry season so you have got to put in the irrigation system, and he was like "It's just not that simple." And I was like "Okay dad whatever." So it's interesting to think that my dad said "You're going to tell me what I'm doing wrong" and I'm like "Yeah probably." Then I went off to the college. But yet he still is like opening my eyes and we're still arguing about things because he would totally get an irrigation system if he had the money.

Amber described this dialogue with her father as an ongoing exchange, and it was one of the more difficult exchanges she described in that it did not lead to his adoption of sustainable farming practices. However, it was conversations like these that resulted in an exchange of ideas that Amber described as central to the process of change for sustainability.

Another role of the mediator in Amber's imagined model was to spread awareness and education. This was usually described in terms of an individual's capacity to make herself more aware of various systems and practices that would facilitate change for sustainability, or an individuals' capacity to model sustainable practices for others. In this excerpt, she explained the importance of education in helping make farming more sustainable:

> ME: So in thinking about the kinds of change you want to make this semester you have talked a lot about farming and how you would like to make farming more sustainable.
> AMBER: Uh-hmm.
> ME: So what do you think is the best way to do that? What needs to happen in order to make farming more sustainable?
> AMBER: Well, first we need to start growing … I guess the first and foremost is education in spreading the word, or doing like what they did at Farm to Fork. I realized how important that is…. So I think the first thing is education, which spreads the word. (Post interview)

In some examples "education" meant increasing her own awareness of how she could live a more sustainable lifestyle, and in others this meant being a model for community members is an important mechanism for jump-starting the ripple effect. This education was usually led by a mediator who was positioned as an insider in the community who could lead the education.

Barriers. In Amber's dialectic, lack of communication was the primary barrier to change. This lack of communication, from her narration, hindered the mediators from playing a

186

central role in the dialectic. The local systems she described as harmful were primarily agricultural practices of the American Midwest, like mono-cropping, overgrazing, use of synthetic pesticides and fertilizers, genetically modified crops, land use practices that depleted the nutrients in the soil, and other agricultural practices generally understood to be unsustainable. She described the roots of the problems as practices, not policy that engendered the practices or structures.

In turn, Amber described the adoption of sustainable agricultural practices by farmers as being the change for sustainability she considered most important. The practices she mentioned as being a part of this change include organic farming, crop rotation, integrating animals and crops together, land use that reduced the need for irrigation, rotational grazing, and using animal waste as organic fertilizer, to name a few. Some of her more animated segments from our interviews consisted of her stories of creative, local, organic farming practices that inspired the local community to adopt similar practices.

Because her mechanism for change relied on a "ripple effect" as mentioned above, lack of communication posed a significant threat to sustainable agriculture's ability to "catch on" in the community. Sometimes this lack of communication was caused by closed-mindedness:

> QUESTIONNAIRE: What are barriers to those changes (i.e., what is stopping them from happening, or what makes it difficult for these things to happen)?
> AMBER: Effective communication. I think that a lot of problems in the world could be solved if people were willing to come together with open minds and be willing to make a sacrifice. (Post questionnaire)

In Amber's model, this lack of communication was due to individuals' unwillingness to change minds and listen to opposing ideas: "We like doing things the same way we've always done it and it's hard to get people to change" (Delay post interview).

Another cause of the communication breakdown in her model was polarized ideas. She

described these divisions between groups as a barrier to change:

> ME: Okay. And then in the community level you said that people's opinions can be a barrier. So where are you with that?
> AMBER: Well, everybody has their own opinions. You know, everybody's made individually and very unique and sometimes that can be a really good thing, as you get a lot of different perspectives…. Like in SLS, all of us came from different backgrounds and I think that was really cool and really helped our discussions along. But it can also be a barrier if you're like trying to move in a direction and people are like, "Well, I don't think we should do it this way. I think we should do it this way." And then other people are like, "No, we should do it this way." (Delay post interview)

Amber described the presence of conflict as a barrier because it hindered the ripple effect that was needed to effect change. This ripple effect evolved through persuasion, listening, and eventually changing practices. Focusing on conflict would prevent change.

In our delay post interview, Amber shared a reflection about her experience as an intern on a local sustainable vegetable farm which had implications for her narrated dialectic. Before this experience, Amber described the driver of change for sustainability as a passionate individual. During her internship, however, Amber experienced frustration with organic farming that made her question her commitment to vegetable farming. Not playing a central role in the farming community posed a challenge to her model, because this meant removing herself from the central position as mediator of the local dialectics that she envisioned would lead to change.

Sarah

Sarah narrated the sustainability dialectic at the community scale. Mechanisms for change involved groups of leaders in the community working towards an equitable system that valued all voices in the community, no matter their capital worth, race, gender, religion, or culture. Sarah's sustainability dialectic as more focused on social justice than natural systems, although she drew connections between inequitable power systems in a community and inequitable distribution of natural resources and exploitation of the earth. She played a minimal

role in this dialectic.

Sarah situated agency in groups, not individuals, who would work collectively to ensure all voices were considered and all people were valued. Barriers to change included structures of power that valued some voices over others, and profit-driven systems that valued people according to monetary worth. Sarah was explicitly skeptical that an individual could effect change on her own without the support of the community. In her dialectic, the collective community was responsible for rejecting power structures that excluded some citizens from participation. Figure 7 shows a visual representation of Sarah's narrated sustainability dialectic.

Figure 7. A visual model of Sarah's narrated sustainability dialectic
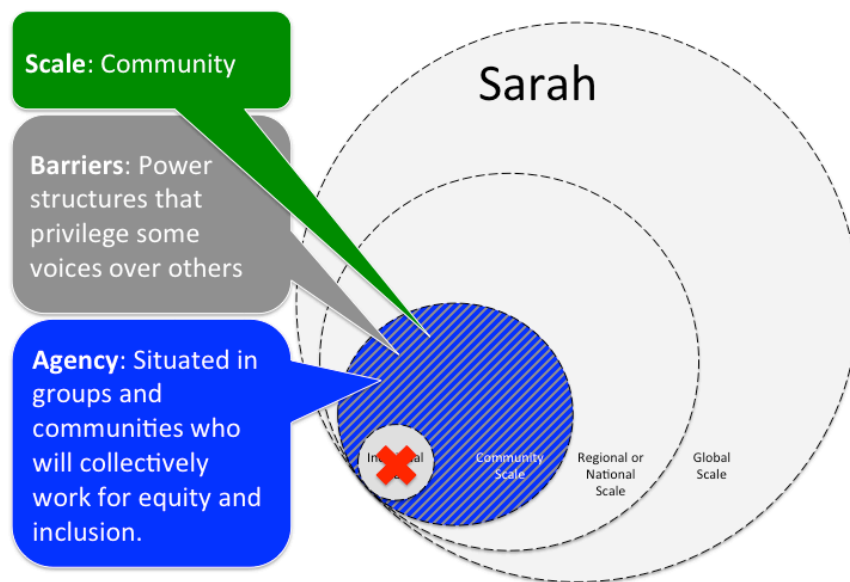
Scale. Sarah's envisioned model of social change was bounded within the community scale, meaning that she described change happening within local civic groups. Sarah rejected a model of sustainability that involved a focus on individual independence from social and economic systems. Instead, she focused on community cooperation:

> SARAH: I don't think we're all destined to live alone in the woods and live off our own patch of land. I would much rather live in a community with people who support each other and have a positive outlook on life. (Pre questionnaire)

189

Sarah positioned her own views in opposition to those in the SLS who proposed an isolated,

agrarian lifestyle. Instead of getting "off the grid," Sarah envisioned a model of sustainability

grounded in intentional community organization and group work as opposed to isolation:

> SARAH: You need a community to live alongside people and struggle with your ideas
> alongside others. I think we're meant to be in community. If you try to live by yourself,
> you might succeed, but you're probably going to need other people. You specialize in
> their area and you have a unique understanding that you might benefit from. I'm just tired
> of people [saying]: "I'm just going to live alone in the woods and that'll be enough." (Pre
> interview)

When I asked Sarah about sustainable practices that she engaged in at an individual level,

she framed her responses to my questions in terms of how individual practices could be used to

build community. Here, she explained that gardening, for example, a practice which she enjoyed,

was important to her not only because it helped provide habitat for native flora and pollinators,

but also because the creation of the gardens allowed people to make connections with those who

might be different than them:

> ME: When you think about your sustainable practice like the gardening… how does that
> change your life, how does that change your community and how does that change the
> world?
> SARAH: With gardening, it changes my life where I guess I'm able to connect to people
> that I might not have been able to connect with in a positive way… different people
> volunteer to water and weed and I think having a community garden helps bring people
> together to create something that's theirs…. I mean if you build a strong community, then
> you're one piece of the world. (Pre interview)

Sarah's model explicitly rejected solutions that were individually focused. Her narrative

sometimes included individuals, but she always contextualized these individuals in relationship

to a larger group, and she considered the individual's equitable positioning within the group a

crucial part of evaluating a community's sustainability and potential for positive change.

Agency and mechanisms for change. Just as Sarah narrated her dialectic at the

community scale, she also situated agency in community groups. Sarah described clear

mechanisms for how communities could prepare to respond to environmental change. Here, she

suggested that the importance of strong communities was a part of sustainability because it

increased their resilience to problems dealing with the environment:

> ME: I also asked you about your idea of sustainability, and you said "it's creating a
> society that strives to function in a way that honors both the earth and people and is
> strong enough to adapt to change." What do you mean by that?
> SARAH: I think the whole idea about sustainability is kind of having a society that
> functions. If you have a well-functioning society that keeps in mind both earth and
> people, they can more easily adapt to change. There'll be faster connections between
> people so that if something drastic happens, or if you need to change fast, it's easier to do
> so. The relationship is already there. If everyone knows everyone else, then they can
> easily call people up and say "here's our problem" instead of not knowing what
> everyone's expertise is. I think that having a society that knows each other and what
> everyone is good at can function in a way that highlights everyone's strengths. I think
> that way everyone can easily adapt to change faster and more effectively, instead of
> trying to do everything individually. (Post interview)

Resiliency in communities was one characteristic that would allow for change for sustainability.

In her dialectic, discord and upset were inevitable parts of community work, and the change that

emerged during conflict would be more sustainable if the communities were able to work

together and value the voices of all people in the community.

At the same time that Sarah adhered to the action in community (as opposed to individual

actions), she pushed back against what she described as a harmful assumption that a community

should be assumed to be homogeneous in values, faith, and other perspectives. For example, she

described the desire of the local faith community within the SLS to be homogeneous, which she

didn't like. Here, I asked her how her conception of citizenship was different than the local faith

community's conception of citizenship:

> SARAH: I think my idea of citizenship is living in the world and struggling with people
> that aren't like you. That's one reason I liked Simons College. Because they are
> [members of the local faith group], but then there are also a lot of international students, a
> lot of other people. But then the exclusivity can feel like 'if you're not like us then
> somehow you don't get included in the same way.' That's hard if you're there. I think
> citizens are meant to be with other people that they don't agree with. (Pre interview)

Sarah rejected an assumed heterogeneity of ideas among community members. She described her ideal community as one where diverse ideas were celebrated and challenged, as opposed to a community that strived to form identity around sameness. This was key for sustainability.

Although Sarah had a clearly articulated story about how communities should would together to create diverse, equitable systems of interaction, Sarah was skeptical of an individual's ability to ensure this would happen. She often denounced initiatives that focused on individual solutions, morals, dispositions, or perspectives. Overall, Sarah was openly skeptical of an individual's ability to make change, and situated agency in the collective cooperation of local groups who worked to ensure the value of diverse perspectives within a community.

Barriers. One of the biggest barriers to change in Sarah's narrated dialectic was the silencing of certain voices in a community. Because resilient communities relied on strong networks, exclusion would weaken these networks and therefore a community's ability to adapt to change. Sarah saw these exclusive practices as being directly tied to environmental exploitation. From her perspective, the same social norms that led leaders to exclude community members and value them for their monetary worth were the same systems that led to the exploitation of natural resources and the earth.

She often identified problematic structures that valued some individuals over others, particularly when these structures led to the devaluing of people and the earth:

> ME: What's the connection between the way that we treat people and how we're exploiting the earth?
> SARAH: I guess through the semester we talked a lot about that connection. How we are so focused on being successful and trying to appear worthy as humans. Especially in the US, success is measured by if you can make money. So the earth isn't really in that picture. Other people's wellbeing isn't really in that picture. If you're only focused on getting ahead then you're going to disregard everyone else and the earth, too. (Post interview)

The structures Sarah mentioned were power hierarchies that devalued people in lower socioeconomic brackets. Overall, her narrated dialectic included a story of intentional cooperation from agency as enacted collectively to ensure all voices were valued in the process of organizing for change. This in turn would support resilient communities that would be able to work towards environmentally just systems instead of perpetuating exploitation of the earth.

Franco

Franco's narrated sustainability dialectic was spatially bounded within the global scale, and he situated agency in large, collective groups that could combat global systems that perpetuated environmental injustice. The systems he identified as targets of change were large, multi-national corporations and corrupt governments. Social change materialized regionally when large groups organized collectively and took a stand against greed and corruption.

Franco named specific structures that hindered change, including American consumerism, individualism, xenophobia, racism, and power hierarchies that allowed citizens of some countries to consume to excess while others lived in poverty in environmentally degraded communities. Franco was explicitly skeptical of an individual's ability to effect change locally. From his perspective, the systems that caused unsustainability were global in nature, and therefore the efforts to make change had to be large scale as well. Figure 8 shows a visual representation of Franco's narrated sustainability dialectic.

Figure 8. A visual model of Franco's narrated sustainability dialectic
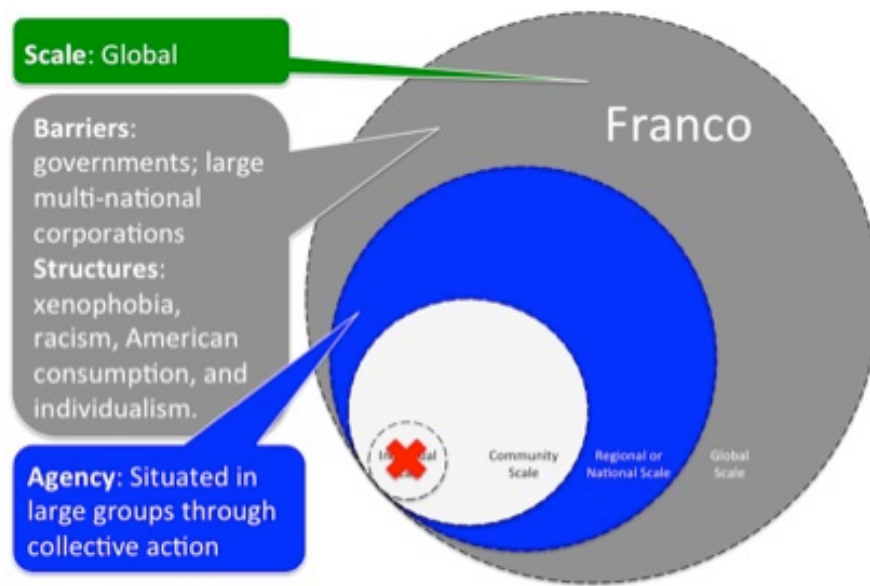
Scale. Franco narrated the process of social change for sustainability at a global scale. When he described both the sources of unsustainability as well as the mechanisms for change, his stories were consistently situated in large, global contexts across all three interviews. One devices he used to illustrate his model was drawing attention to how American consumption and greed impacted citizens of other countries. He often mentioned the harm caused by American hyper-consumerism. For example, when I asked him about sustainable practices that were important to him, he juxtaposed American wastefulness with water shortage in India:

> FRANCO: Water has become a huge issue recently, especially with this whole social media challenge, the ALS ice bucket challenge.[3] People are just throwing water on themselves. Back in India people are thinking about why [people in the U.S. are] throwing water on themselves [when people in India] do not even have water to grow crops. (Pre interview)

Franco's explanations about why and how the world was unsustainable consistently highlighted the global links between American consumerism and global poverty. For example, here he focused on exposing workers in India to toxic chemicals as part of the e-waste industry:

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[3] http://www.alsa.org/fight-als/ice-bucket-challenge.html

FRANCO: I've seen it happen. I've seen little kids roll along on these big huge electronic dumps picking up batteries just with their hands, and I was like, that's not how people should live. Every time [Americans] dispose of products and every time Apple comes up with a new product or just any other IT company comes up with a new product – "Oh you can just exchange your phone and we give you a brand new one." And I'm thinking about that very day when they ship it all off to this developing country: what's going to happen on that other end? (Post interview)

Although Franco offered numerous examples of situations he had experienced personally (like this e-waste example), he more frequently drew on broader examples of how the actions of the global elite impacted the global poor to highlight social injustice and inequity. He referenced global unequal distribution of natural resources, and described an ideal sustainable community as a place where inequity was eradicated. In our post interview, for example, when I asked him to describe his ideal community, he said that it was a place where "everyone has equal opportunity" and where "everyone has an equal share and cost of resources. People are not constrained by privileges defined by the developed world" (Post questionnaire). Here, he explained how international trade and American hyper-consumption created harmful working and living conditions for the global poor:

FRANCO: [International trade] is becoming a very dependent source, especially now with Amazon and Ebay: people want to order stuff from China. They claim to have it at discounted prices. That basically means that people in China are going to be working below minimum wage in the sort of facilities that are hazardous to human health. The fact that you want to save money but distress someone else's life is something that should not really happen. (Pre interview)

Power systems that perpetuated social and economic inequity were prevalent structures in Franco's narrative of social change. Although he described these practices and policies as intricately linked with environmental and natural systems (usually in the form of unsustainable resource extraction and waste), he turned to global social and environmental justice to explain what systems needed to change to make the world more sustainable:

FRANCO: Everyone deserves a fair opportunity and resources to live a life. Living on

195

earth is not meant to be a privilege for only the rich. This practice should lead to equal resources and comfort of living rather than sitting under a street light or candle light at home. (Pre questionnaire)

Overall, Franco's narrative of social change consistently identified systems that operated at a global scale that perpetuated unsustainability, which included environmental injustice. The problems these systems perpetuated required global solutions, which is explained more below.

Agency and mechanisms for change. Franco situated agency in large collective groups, governments, and multi-national corporations. Sometimes he identified opportunities for change within the same systems that he suggested were responsible for unjust policies. In his narrated dialectic, agency was enacted by large groups. Franco rarely situated agency in individuals. He was explicitly skeptical of an individual's ability to effect change globally.

When I asked Franco how to build sustainable communities, he focused on systems. For example, in this excerpt, he described how to address economic inequity:

FRANCO: The only possible solution—I do not even know—this is just me being spontaneous and brainstorming—[is] to have this sort of structure implemented by the government where people—where a city would be planted in such a manner that everyone gets an equal say in the land.…You can not just say "You have to spend your entire life trying to save up for this piece of land." That has to come from the government. The government has to form a sort of structure where everyone has an equal say in getting a piece of land if that makes sense. (Pre interview)

Franco situated agency (or what he described as action that would be effective at resisting the policies of large governments and corporations) within the government, not individuals. The government system was the actor responsible for driving change. When I asked Franco about the sustainability dialectic, he often returned to large-scale contexts, naming governments and multi-national corporations.

In line with this focus on large systems, Franco offered numerous examples of how American consumption and hegemonic policies contributed to unjust working conditions for the

global poor. When asked about how to make change in these systems, he reliably responded in terms of large-scale action that would result in an overhaul of the policies and practices he identified as harmful. For example in this excerpt, his mechanism for change in this system was to have e-waste processed in the US:

> ME: So what do you think is the best way to make change in a system like that?
> FRANCO: I wish that the developing country [would ship the e-waste] back with all the toxic stuff to the developed [country] and see how people deal with it here…To have someone from the company – these people just go and visit a site or something just to see that environment or to visit that province in China. People just need to see it that's the only way because [they're] going to get [their] products cheaper. All [their] new products come at cheaper costs because the people who are dying were making the products. It's not just the e-waste recyclables, the people who manufacture them in China who are dying. People need to physically see what's happening and the idea is: are you willing to pay more in order to benefit their health? That's a good one. Are you willing to pay one thousand dollars more for your laptop? Or are you just going to be individualistic, greedy and don't care about anyone else and just want a cheaper price? (Post interview)

Franco suggested that processing e-waste in the U.S. would lead to policy change because Americans would become more aware of the consequences of consumption of electronics. In this description (an others) of opportunities for change he never used the word "I." The actors in this story include "the developing country" and "someone from the company." These actors responsible for working for change did not include himself or others in his local community. The agents were abstract forces that might somehow influence the e-waste industry to reroute American waste from India, China, and Nigeria back to U.S. soil. The structures of greed and individualism were the structures that perpetuated this system of injustice.

Franco's focus on systems was paired with an explicit skepticism of the potential for individuals to effect meaningful change. Franco stated numerous times in our interviews that individuals had little opportunity to make change in large systems, and that agency had most potential for change when it was enacted by groups. He did not avoid describing an individual's role in this process of change— just like he acknowledged the role of American consumers in the

197

e-waste story, he acknowledged that as an individual he had the ability to effect some change. However, these stories were often qualified by adding that the change individuals could effect was miniscule compared to the systemic change necessary for larger transformation.

For example, when I asked Franco about how individuals could make a difference, he did not deny the individual the ability to change small aspects of their lives, but he made the point that groups were more powerful than individuals. When Franco did identify himself or an individual as an agent of change, he stressed the limitations of individual action:

> FRANCO: Being an individual you'll only make a certain amount of change… As an individual you will make certain change but not much change, and if you work with others you will have a bigger impact on the world. That can spread…. I just feel that is a better solution than us being an individual and saying "You are saving the world" but not really saving the world. (Pre interview)

This skepticism in individual action carried into his narrative about the potential for small groups to make change in large systems as well. Even as he situated agency in groups, he was still dubious of the potential of even collective action to effect change in corrupt systems:

> FRANCO: To tackle the government as an individual is going to be very, very difficult but if you're a community and everyone is in it together then there's the potential of changing that system.
> ME: How?
> FRANCO: It's a good question. Well in India it is very difficult because our system is very corrupt so you can't exactly change the system. No matter how big the community is— no matter how much you fight, [the government is] still going to be in charge. (Delay post interview)

Franco identified government corruption as the source of the unsustainable distribution of resources and described the government as the target of collective action. Because his description of large systems often included accounts of corruption and ossification, it follows that Franco would not situate individual agency as central to the dialectic.

One mechanism for change in Franco's narrated dialectic was education. Because he often suggested that education was a key driver of social change, I followed up with questions

198

about how that might happen:

> ME: Okay. So that kind of awareness, what do you think is the best way to give people access to that kind of education and information?
> FRANCO: I'm thinking how Germany does it and just offers free education. That the government provides free education to its citizens and, yes we do have a similar scheme in India where there's public education. But public education is really bad because the teachers are unpaid and the facilities are terrible and it only basically goes to the 8th grade. So they still need to change the way they look at public education. (Post interview)

In this example and others, Franco situated the potential for change in a large-scale actor: the government. There are no individual actors in this story. Instead, agency was enacted through collective work through large-scale structures to change the entire educational system.

Barriers. In line with his skepticism of an individual's ability to effect change, Franco explicitly denounced the ethos of individualism, which he named as a primary cause of unsustainability. He criticized individualistic perspectives and lifestyles, particularly in the context of American culture. At the end of the SLS, he defined community as "Living together in harmony in a setting where people interact with each other instead of being individualistic" (Post questionnaire). Later Franco criticized the sustainability movement's focus on individualistic sustainable practices, arguing for attention to broader social systems:

> FRANCO: I think that sustainability should be a broader term. It shouldn't be condensed on just the environment…The environment should be a priority but at the same time I just feel like, as humanity and society if you're trying to live in this world it should be more accepting. You cannot just say, "save the environment." It's not just saving the environment, but being able to communicate with one another. You can't just do your own thing. (Post interview)

Franco described lack of communication among neighbors as an emergent system that resulted from a dialectic in which the structure of individualism was reproduced. Individuals reproduced this structure by enacting agency through their own consumption and in their positioning themselves as "savers" of the environment. Franco's model of social change was founded on the idea that individuals were a part of the process, but that individualistic solutions were inadequate

to effect the change that was needed to address issues that were global in scale.

When I asked about barriers to sustainability (not solutions), he also drew attention to large systems that dictated how individuals process and consume material resources. In this story below, he referred to a United Nations treaty and US's relationship to the policy:

> FRANCO: So the Basel Convention is an international treaty that was established saying that: "All toxic elements from developed countries shipped to developing countries have to meet a certain requirement."... So the US has only signed this document and hasn't ratified it, which means that they are still on the loose – they can still do whatever they want… And US is the biggest consumer [and the] biggest exporter of e-waste in the world. And they haven't ratified the Basel Convention, which means a lot of the stuff is being illegally shipped to developing countries at the cost of the developing countries. The people at the other end in India, China and Nigeria— we don't have the basic facilities like gloves or masks to deal with these toxic chemicals. … So what really annoys me is how people don't really care about what's happening on the other end. Like suppose you want to upgrade your device, you just go to the store and they give you a new one. What happens to that device? It gets shipped to Nigeria, or India or China – people on the other end will just take away all the parts, burn it up and sell it back to the company. And this is all done in slums by poor, underprivileged workers who are doing it because they have no other job and they don't have a choice. (Post interview)

This excerpt not only displays Franco's use of large systems to describe barriers to social change, but also how he viewed individuals as actors whose agency was largely constrained by economic forces and policies that were out of their control. The workers in this story were subject to the international policies (like the Basel Convention) that allowed the wealthier countries to deposit e-waste on their land. Like in other stories Franco told about change, individuals were not ascribed capacity to effect global change, particularly underprivileged, poor individuals.

Considering Franco's focus on collective action and communication, it was not surprising that he also identified inequity, racism, and xenophobia as structures that hindered sustainability. His narrated dialectic focused on the importance of seeing past differences and working together: "Environmental justice is the first step in achieving a sustainable future. People need to learn to accept and work with each other… Once people accept each other then perhaps we can better our

environment" (Post questionnaire). For people to work together, all members had to be included.

Experiences with racism and xenophobia locally may have led Franco to feel that his

work as an individual would not be welcomed as an outsider and Person of Color:

> FRANCO: The biggest [barrier] would be cultural barriers. "So you are not from this
> region. Why should you tell me to change my lifestyle?" That is probably the biggest
> thing that is on my mind right now. I do not have an argument for that. It is true. I am not
> from this region. I cannot say you need to change your lifestyle. That person may be
> living here for generations. That is the one thing that is stopping me from doing anything
> that is really out there. It is a lot easier to do it back home than it is to do it here. (Pre
> interview)

Franco's experience in the American Midwest and at Simons College may have contributed to

his sentiment that individuals, especially outsiders, had little ability to effect meaningful change.

When Franco did include actors in his stories, he expressed frustration that the change

that needed to happen was "impossible." In this excerpt, I asked him about what he referred to as

the corrupt nature of the government that distributed resources unequally among its citizens:

> FRANCO: Changing the governments? [I'm] thinking about the amount of stuff you have
> to go through – virtually impossible.
> ME: How come?
> FRANCO: Because it's such a big network. You have a country that is the biggest
> democracy in the world. You have the country that is going to become the biggest
> population in the world, trying to control, trying to govern that entire country is – is a lot
> of work. And if you're trying to challenge the system at the same time you're going to
> cause a lot of issues. I mean, sure the more moral way is, yes to fight corruption. People
> are doing that but it's very difficult. It's not easy. (Post interview)

Due to the scale of the problems he identified in his stories of change, he often expressed

frustration that solutions were unknown or difficult to develop. When I asked him about how to

address unequal distribution of resources globally, he often acknowledged that he did not know

what the solutions were. For example, in this story he used an example of a company in South

Africa, where he worked summer after the SLS, trying to buy the water rights to the local

aquifer, which would deny the local community access to the water there:

FRANCO: I was in Drakensburg living on the farm [which had] the cleanest water you get in South Africa. Because it's remote and it's a world heritage site and it's all protected. You drink off the river. Now the problem is you have a company. They want to buy the whole aquifer…because water is going to become a shortage in the next few years. There are already droughts…. The companies are going to buy out resources. So it's a problem. You have companies and you have government and sometimes [both]. So that's another issue we need to consider in the future.
ME: So how do you change that?
FRANCO: I don't honestly to God know. Because I'm looking towards my background. To go back to India there are millions and millions of people. Everyone wants some resources in their lives, but the country can't sustain it. So people have to go to a developed country, like American where people have plenty of resources. Maybe not for the long term but temporarily, yes…. So I don't know, I don't know. I really don't know. (Delay post interview)

In some ways, Franco's focus on large-scale systems as the target of change for sustainability meant that he was easily able to trace the source of local problems to issues at a global scale, which he saw as a strategy and as an advantage. At the same time, because the problems he identified were global, this contributed to a sense of hopelessness in the face of large, corrupt systems that were seemingly impossible for individuals to change.

As I mentioned above, Franco spent the summer after SLS in South Africa working on community projects with a group from Simons College. We conducted our delay post interview right after his return. During the interview, he told story after story of success in working for change in the local context of Drakensburg. He took a train every morning to what he described as the most dangerous train in the country, and worked in a poor region to help community members design plans to build a local economy.

FRANCO: So I made a list of communities that I visited and a list of problems. I basically did like a Venn diagram for mutual issues. And it all went down to unemployment. And so using that, I decided to use the skills and entrepreneur workshops. And the one thing … the reason why I say it's successful is because at the end of my second workshop, the Department of Social Development come in and actually conduct a partnership with all the people who attend my workshops to create their nonprofits. They provided grants to the people who were at my workshop. And they also wanted me to work for the government. And so I got invited parliament and actually sat in parliament for a month. And I conducted workshops at the African National Congress and I worked

with all … not just the religious groups, I worked with Christian leaders, Muslim leaders and other leaders, politicians. This is in my third month. So it did show that my work did end up being successful. (Delay post interview)

The problems identified in Franco's narrated dialectic did not change after this experience: he still identified global problems that needed large, collective responses. Social change was still driven by large-scale, collective action. However, the different context afforded him the opportunity to participate in this process and experience working for change at a local scale. After his trip to South Africa, there were two main shifts in his narrated dialectic: (a) he included himself in the story, and (b) it included a more clearly articulated mechanism for how local dialectics could impact large-scale change.

With this new experience, Franco added to his narrated dialectic a vision for how he could fit into the global change he wanted to see in the world. He was not afforded this opportunity in the American Midwest, where he was positioned as an outsider, and where the structures of xenophobia and racism constrained his agency in those spaces so much that he played a peripheral role in many local dialectics. In South Africa, his privilege as a student from an American university and as an international community organizer positioned him as someone who could contribute to the dialectic himself, leading to revision of his narrated dialectic.

Overview of Participants' Narrated Dialectics

Charlotte. Overall Charlotte's envisioned model of the process of social change for sustainability was bounded in a local scale. In our interviews I asked her about change on three different scales: her own life, community, and the world. She repeatedly returned to the local community scale to describe change, and defined the scope of this process taking place within structures within her reach. Agency was situated in herself (or another impassioned individual).

The key actions needed for change were modeling sustainable behaviors to others,

203

spreading awareness, mobilizing others to make change, helping people feel empowered to make change, engaging in systems analysis, and listening to the perspectives of others to better inform her own actions. Conflict and failure were key events in her model, and the main barriers she identified that hindered this process were the slow responsiveness of large systems, lack of awareness and education, and other individuals' unwillingness to take action.

Charlotte's narrated dialectic was reflective of her embodied dialectic in a few key ways. First, Charlotte was positioned and positioned herself in the local context of the SLS as a leader, a "doer," and as someone who was willing to work around barriers to effect change. In Charlotte's narrated dialectic, there was similarly a powerful, passionate individual who was positioned central to the dialectic. Neither her embodied nor her narrated dialectic focused on structural constraints or enablers. The focus of both dialectics was on an individual agent who could engage in systems analysis and take action for change despite the barriers.

Second, because Charlotte felt empowered to make change in her local community, she had many experiences trying and failing to make local change. When she met barriers to change in the Maple Glen retirement community, for example, she worked to find people who would help her circumvent the consensus process and make fast decisions. Similarly, in Charlotte's narrated dialectic, she envisioned a model of change that was similarly situated in systems to which she had access. Just like in her embodied dialectic she stressed the importance of local connections, her narrated dialectic also relied on local solutions. Just as Charlotte was frustrated with the slowness of systems at Maple Glen, she was similarly skeptical of the ability of large systems to be appropriately responsive to the change. Therefore, her envisioned model acknowledged the large-scale problems, but championed the local dialectic. This was how she maintained hope in her ability to make the change she wanted to see in the world.

Amber. Overall, Amber's narrated dialectic enfolded at a community level, where a politically neutral mediator who was familiar with both sustainable and traditional farming practices could work to facilitate dialogue and spread awareness about sustainable agriculture. This engendered a ripple effect, which would enable the practices to spread.

This was reflective of her positioning as a middle person in the local context of the SLS. Amber grew up on a traditional farm and was therefore an insider in this world. However, positioning herself as central to the traditional farming community—in terms of practice or political ideology— threatened her central position in the dialectic. Amber wanted to work to bring sides together, sharing ideas that would increase sustainable agricultural practices.

In both her narrated and embodied dialectics, agency was enacted through the mediator's intentional neutral positioning. In the local context of the SLS, she was reluctant to explicitly identify with a political party, and she often avoided acknowledging conflict. It is not surprising that the structures she identified in her narrated dialectic, then, were tribalism and group think that stunted open-mindedness and willingness to listen to change. Her narrated dialectic focused on individuals working against ideological structures of tradition, which produced a dialogue between groups that would help spread interest and passion in sustainable agriculture. Amber's narrated dialectic focused on the interaction between agency (mediators) and structure (tribalism; tradition) in farming communities, and the outcomes of this dialectic were dialogues that would increase sustainable farming practices and engender open-mindedness and listening.

Sarah. Sarah' narrated dialectic was situated in the community scale. She situated in groups within communities who would work to create equitable systems that valued both people and the earth. The structures she identified as perpetuating unsustainable practices included the norms and rules of local communities that valued some voices over others. She described

barriers to the collaborative action needed to make change for sustainability mainly in terms of (a) community organizations' dominant leaders, who did not consider all perspectives, (b) minorities being silenced and therefore not participating in action for change, and (c) action for change targeted at the wrong structures due to lack of diverse perspectives. Her dialectic took place when local groups enacted agency and worked to resist structures that valued individuals for their monetary worth, and instead strived for the production of racially, socioeconomically, and ideologically diverse communities.

This is reflective of Sarah's peripheral position in the local dialectics of the SLS. She was often quiet in classes, even when she had ideas to share. She was particularly intimidated by sharing her ideas if they were different than her professors', or if she felt that she might be judged negatively for disagreeing. It is not surprising, then, that in Sarah's narrated dialectic she did not situate agency in individuals, but instead in groups who would work to ensure that all voices mattered in the community. She envisioned the interaction between agency and structure happening when agency worked through power structures that valued all people regardless of monetary worth, and resisted structures that devalued certain individuals. Sarah's narrated dialectic focused on the interaction between agency and structure at the community sale, and the outcomes of this dialectic were ideally equitable, just, and resilient communities that could respond to challenges in ways that valued people and reduced exploitation of the earth.

Franco. Overall, Franco narrated the process of social change for sustainability at the global scale. Franco identified governments, large multi-national corporations, xenophobia and racism, American consumption, American lack of awareness, and individualism as the systems that perpetuated injustice. He situated agency in large, collective groups (sometimes in the form of a government or company) that could work to fight corruption, environmental injustice,

economic inequity, and would include a diverse range of persons in the process. The interaction between agency and structure took place when large groups organized collectively to combat systems of environmental injustice, thereby resisting and transforming structures of power that devalued the lives and health of the global poor and the environment in which they live.

When Franco's primary experience working for change had been in an American context, he was explicitly skeptical of an individual's ability to effect change globally and even locally. His narrated dialectic contained no stories of individuals working for change. Similarly, he did not have a mechanism for how local and community efforts could be a part of the collective action needed to effect change. This was reflective of his positioning as an outsider in the local region of Simons College, and his interactions with the local community. However, after his experiences in South Africa, his narrated dialectic included a more clearly articulated mechanism for how he could participate in the process of social change at a community, regional, and national scale. In one context, the structures of power, racism, and xenophobia worked against him; in another, he was able to use the privilege these structures granted him to effect change.

Summary

Overall, students' embodied dialectics were grounded in experiences that iteratively informed the way they envisioned and imagined the process of change for sustainability. Charlotte and Amber, who were positioned centrally in the local dialectics, had numerous opportunities to engage in local sustainability work. Their narrated dialectics, accordingly, situated agency in hard-working, passionate individuals. Their dialectics included more clearly articulated mechanisms for change at a local scale, perhaps because they had both experienced numerous success stories in effecting change locally. Franco and Sarah, who were positioned peripherally in local dialectics, had fewer opportunities to engage in local sustainability work.

Their narrated dialectics, appropriately, situated agency collectively. They denied individual

agency, and most clearly articulated mechanisms for change at community and large scales.

Table 5 overviews each of the participants' narrated and embodied dialectics.

Table 5. Overview of each participant's embodied and narrated dialectics

Name	Overview of Embodied Dialectics	Overview of Narrated Dialectics		
		Scale	Barriers	Agency
Franco	Although he was successful within most class contexts in playing a central role in the local dialectics, he experienced barriers to participation and learning that his White, American classmates did not face. From his perspective, this was due to racism and xenophobia within the SLS program and the surrounding rural Midwestern communities.	Franco narrated stories of change for sustainability primarily at the **national and global** scales.	Global power hierarchies; racial injustice; xenophobia; American consumerism; corruption in governments; individualism	In his narrated dialectic, Franco situated agency in **large, collective groups** who could push back against powerful corporations and governments; Franco was skeptical of an individual's ability to effect meaningful change locally because the problems were global in nature.
Sarah	Sarah was positioned by others and positioned herself as a peripheral participant in the local dialectics of the SLS. She mainly participated through silence and critical protest of ideas, which she shared in other contexts. In her local sustainability work, she placed value on listening to all voices and constructing equitable decision-making processes.	Sarah narrated stories of change for sustainability primarily at the **local** scale.	Inequitable power structures that when expressed locally excluded and marginalized certain people from civic participation; capitalism	In her narrated dialectic, Sarah situated agency in **collective, local, civic groups** who would work to create local equitable social systems that valued people and the Earth equitably.
Amber	Amber positioned herself as a neutral mediator who was an insider in both the traditional and sustainable agricultural communities. She positioned herself as a boundary crosser who could help groups hear each other's ideas and work towards more sustainable agriculture and harmony within communities. In her local sustainability work with Farm to Fork, she described her work as largely successful in facilitating needed communication in the local agricultural community.	Amber narrated stories of change for sustainability primarily at the **individual and local** scale.	Conflict; tribalism; lack of communication among groups; traditional farmers being unwilling to change their practices and listen to new ideas; polarized ideas	In her narrated dialectic, Amber situated agency in politically neutral **individuals** who were willing to facilitate conversations between traditional and sustainable farmers. This was the driver of change, which in her narrated model resulted in traditional farmers changing their practices to become more sustainable.
Charlotte	Charlotte positioned herself and was positioned by others as a leader and activist in the local context of the SLS. She was largely successful in her local sustainability work and often commented on how change was driven by local activists who had control of their choices and decisions without oversight from large systems that might deter change for sustainability or be blinded to what change was needed. She played a central role in local dialectics and did not shy away from conflict that might lead to transformation.	Charlotte narrated stories of change for sustainability primarily at the **individual and local** scale.	Individuals who were stubborn or unwilling to work for change; large systems that were unresponsive to local needs and slow to change	Charlotte situated agency in **empowered, passionate individuals** who would persevere through challenges and mobilize others to work for change in local systems. She was skeptical that working in large systems would lead to change because of the tendency for large systems to be unresponsive to change. When I asked her how to make change at a large scale, she returned to stories of local activists working for local change. Individuals were the drivers of change in her narrate model.

CHAPTER 6

STABILITY AND CHANGE: RELATIONSHIPS BETWEEN THE STUDENTS' EMBODIED
AND NARRATED DIALECTICS

Stability and Change

The agency/structure dialectic as a theory allows for the possibility of agentic and

structural transformation at multiple spatial and temporal scales. This results from the dialectical

interplay between agency and structure. If agency resists structure, the systems that emerge from

the dialectic may produce new systems. However, although transformation is possible within this

framework, transformation is not inevitable. Some structures can be reinforced, reified, or

perpetuated through the dialectic. This is the same for the students' learning in this program.

Through their experiences and interactions in the SLS, some components of their embodied and

narrated dialectics were reinforced or remained stable, while others changed over time.

The models presented in Chapters 4 and 5 are not intended to assume a static dialectic; in

contrast, they are living models that are subject to both revision and reproduction over time. As

the theory suggests, the evidence from this dissertation confirms that stability and change

unfolded within my participants' models simultaneously. In some cases, students' narrated

models were challenged and revised based on their experiences in ways that were visible to me

as an observer in the short amount of time I spent in the SLS. At the same time, I was also able to

observe ways in which their models were sometimes reinforced, perpetuated, and reproduced. In

the following chapter, I overview the unique relationship between each students' embodied and

narrated dialectic, with attention to stability and change.

Franco

The case of Franco: stability and change. Franco's embodied and narrated dialectic

maintained an aligned relationship when he was in the context of the SLS and the rural Midwest.

Due to his numerous experiences being excluded from local sustainability work (e.g., his frustration to achieve full marks in class due to his accent; his encounter with the Sherriff in Merriam; his experiences being threatened by a local citizen during a water testing investigation; and more), his narrated model of social change for sustainability excluded individuals from the story of change. This model was maintained across the time of the SLS. In his pre-interview, Franco expressed explicit skepticism that he could effect meaningful change locally due to his identity as a non-White, non-American student, and in his post interview this was reiterated. Although his model did not lack agency, his model did not contain a clearly articulated mechanism for how local action from individuals might contribute to large scale change.

The SLS provided Franco with no experiences to challenge this narrated dialectic. Although he developed strategies for gaining access to local communities temporarily (e.g., bringing White classmates or colleagues with him to do his local sustainability work), he maintained that he (as an individual) would not be able to effect change locally in the context of the rural Midwestern U.S. in his post interview. Being unable to serve a central role in the dialectic in his sustainability work created a stable model of change that he consistently referenced: individual, local work would be ineffective at transforming larger systems. Transformation had potential only in large, collective action that had the power to push back against the global structures that empowered large corporations and corrupt governments.

The change that was most visible within Franco's case was the dramatic shift in his embodied and narrated dialectics after his trip to South Africa. When he returned from this trip, he narrated a new model of social change for sustainability that contained a more clearly articulated mechanism for how individual work in local contexts could have a large-scale impact. His local success working to develop sustainable local economic networks offered a new

mechanism for how individuals working within local communities might play a role in effecting change at a larger scale. It was not until he experienced this first hand that he began to imagine a future where this type of action and transformation was possible.

The case of Franco: a dialectical relationship. I describe the relationship between Franco's embodied and narrated dialectic as concordant but "place-based," meaning that his embodied and narrated dialectics were reflective of each other, but the models changed based on his experiences across spaces. Franco's narrated model in the U.S. was reflective of his lived experiences in that space: the two dialectics were concordant. Franco's U.S. narrated dialectic was reflective of his embodied dialectic in that he ascribed little to no agency in individuals to effect large-scale, harmful structures. Systems, not individuals, were the drivers of inequity, injustice, and unsustainability. Therefore, systemic action was needed for transformation. He met numerous local barriers to his own sustainability work: his agency met structures held firmly in place by local existing dialectics. Through these dialectics, the structures of racism and xenophobia were so strongly reproduced that he learned his own agency was ineffective at effecting change. He envisioned a dialectic, therefore, that situated agency in large groups that could challenge and resist these systems.

Similarly, when Franco was in South Africa working towards the development of sustainable local economies, Franco's embodied dialectic and his narrated dialectic were also in alignment with each other. His success led him to revise his narrated model, producing a different concordant relationship between his embodied and narrated dialectics. This new model contained a more clearly articulated mechanism for how individual action in local spaces could contribute to change at larger scales. This suggests that his embodied and narrated dialectics maintained a concordant relationship between each other (stability) but that the models were

212

transformed across spaces as new experiences produced new narrated models of transformation (change). In our Delay post interview, Franco remained skeptical that he would be successful working for change in the rural U.S., providing evidence that his narrated dialectic in the context of the U.S. remained constant during the time of this research (stability).

Despite the concordant relationship between Franco's embodied and narrated dialectics in different spaces, Franco's model in the U.S. contained a tension. During his time in the SLS, Franco situated agency in large, collective action. Although this was informed by his lived experience in the U.S., at the time of our interviews he had not yet had the opportunity to participate in large, collective action that he described was necessary to effect global change. As a result, he did not envision a role for himself in his U.S. model, and his mechanism for large-scale change was vague and lacked detail about how collective agency worked to transform systems. It was not until he developed his South African model that he was able to (a) describe his role in the process of change in his narrated model, and (b) describe a more detailed mechanism for transformation at multiple spatial scales.

Sarah

The case of Sarah: stability and change. The stability that was most visible to me as a researcher during my time with Sarah was her consistent struggle to play a central role in local dialectics, and in her commitment to situating agency within collective groups in her narrated dialectic. Although Sarah did at times push back on ideas she disagreed with during classes or on field trips, these few encounters did not lead to the production of a narrated model that included individual actions as the driver of change. Instead, these experiences served to reinforce her commitment to an imagined society where all citizens had the critical consciousness needed to construct equitable social systems that rejected individualism, capitalism, and unsustainable use

of natural resources.

The change that was most visible in Sarah's case was the way she used the experiences from the SLS to strengthen and add details to her narrated model of change as the semester progressed. When she heard new ideas in classes or field trips that she thought supported her vision of an equitable and just society, she applied these to her narrated model. For example, after her work in Maple Glen, she described the process of change in her imagined society as being based on consensus and ensuring that all people's voices were being heard in the decision-making process. The change took place as she developed of a more clearly articulated system for civic organization where citizens worked collectively for equity and justice, and where she would be able to play an equal role in the civic process.

The case of Sarah: a dialectical relationship. A distinct tension emerged between Sarah's embodied and narrated sustainability dialectics. In her sustainability work within the SLS, she maintained a peripheral position and participated primarily through listening and critical reflection. She shared reflections in our interviews about how she felt excluded as a questioning Christian and as someone who did not privilege rural, isolationist solutions to sustainability. However, her experiences in the SLS did not provide her the opportunity to participate in the utopic system she described in her narrated model. In our interviews, she told stories of imagined communities where (a) civic groups worked collectively, (b) all people's voices and ideas were included in the decision-making process regardless of monetary worth, race, religious beliefs, or other factors, and (c) natural resources were extracted sustainably and distributed equitably. When Sarah was frustrated with ideas or experiences in the SLS, she often referred to this utopic model and used it as a means of speaking back to the problematic interactions in the SLS.

Like Franco, Sarah's models contained a similar tension. Although the ways Sarah participated in the local dialectic informed her narrated model, the narrated model she worked to construct was not reflective of any experience she had personally witnessed in the local context of the SLS. In other words, the community Sarah was a part of did not work collectively to ensure that her voice (or other marginalized voices) were included. During our interviews, she used this tension to describe aspects of the SLS that she felt uncomfortable with; her narrated model as a means of identifying and describing problems she observed in the SLS. In this way, Sarah's models informed each other, but they were not reflective of or in alignment with each other. This tension between her embodied and narrated dialectic was never resolved. She never developed hope that she could transform these systems through her own embodiment of agency in the local dialectic. Instead, she imagined a society in her future where this would be possible.

Amber

The case of Amber: stability and change. During the SLS, Amber maintained a narrated model of social change for sustainability that was in alignment with her embodied dialectic. In her narrated dialectic she situated agency in individual mediators who would work to dismantle structures of division, bringing sustainable and traditional farmers together through listening and dialogue. Similarly, her local sustainability work in the SLS, she positioned herself as a mediator who would facilitate conversations between traditional and sustainable farmers. This alignment was sustained during the time of the SLS. She did not have experiences during the SLS that caused her to openly challenge her narrated model where individuals drove change in agricultural systems. She maintained a commitment to the "ripple effect" mechanism for change in her narrated dialectic throughout all of our interviews.

The change that was most visible in Amber's learning was that her narrated model was

215

revised as she started to question her own role in the process of social change towards more sustainable agricultural practices. After an internship on a sustainable farm after the SLS, Amber began to question her own commitment to this type of advocacy and work. This was primarily due to the physical, emotional, and economic stress that accompanied small-scale organic vegetable farming practices in a region dominated by large-scale industrial farms. In her descriptions of imagined change in agriculture, she still maintained that change was driven by individuals, but she questioned her role as central to that process.

Despite this questioning of her own future in the field of agriculture, her narrated model was not revised. During the SLS, Amber experienced numerous successes in playing a central role in facilitating the dialogue between farmers that she envisioned being crucial to effect change. In her Farm to Fork project, for example, she mentioned the potential changes of (a) creating stronger networks of farmers within the community, and (b) helping sustainable farmers reach a customer base that they would not have had access to prior to the video being online. Her success as a mediator reinforced her narrated model that this type of action drove change in communities and larger systems, even if she occasionally questioned her own role as mediator.

The case of Amber: a dialectical relationship. The relationship that Amber maintained during the SLS had a tension similar to that of Sarah's and Franco's. Her narrated model had a mechanism for change that involved successful changing of minds and practices on the part of traditional farmers. However, despite the stability of this model of change throughout the semester, she had not seen this process successfully executed in her own experiences. For example, the conversation with her father in the previous chapter included the exchange of different ideas, but this did not lead to a change of farming practices in ways Amber described in her narrated model. In her narrated model, however, this type of communication consistently

resulted in the transformation of traditional farmers' practices.

Charlotte

The case of Charlotte: stability and change. Charlotte's case presented stability in her commitment to individuals being the drivers of change in her embodied and narrated dialectics over time. Although Charlotte acknowledged the importance of considering large-scale problems, she consistently expressed discouragement when faced with change in large systems. She advised against working for change in large systems because (a) these systems were ossified and difficult to change, and (b) were out of touch with the needs, problems, and knowledge of local systems. This was consistent during her interactions in classes and on field trips in the SLS (e.g., when she criticized the GMO seed company for engineering agricultural systems that were out of touch with local problems; when she said that working for change in systems engendered a sense of hopelessness). Similarly, in her pre, post, and delay post interviews, she relayed stories of change that centered individual action.

In terms of change, Charlotte met numerous barriers to individual action during the SLS, most notably in her Environmental Problem Solving Project at the Maple Glen retirement community and in response to her reconciliation with her identity as an Evangelical Christian. Both of these tensions lead to visible change in her embodied dialectic, but less change in her narrated dialectic. Being positioned as an outsider due to her Evangelical ideology forced her to wrestle this component of her identity. As a result, her embodied dialectic changed in that she revised her mode of participation to place herself more centrally to the local dialectic unfolding in the SLS that was critical of Evangelism. She began to develop a critical stance towards the role of Christianity and Evangelism in the North American landscape, which was visible during her reflections in class.

Similarly, in her sustainability work in Maple Glen, she became frustrated when the retirement community was slow to adopt the changes in the sustainability plan. In response to this, Charlotte developed new strategies for working around the barriers of consensus through which the retirement community was operating. She learned to work around the barriers of stubborn individuals and slow systems by strategically identifying the individuals who could circumvent the consensus model of decision-making and move their project forward. These experiences lead to transformation of her embodied dialectic. Despite these barriers and this revision of her own strategies for change, Charlotte's narrated model was reproduced and reinforced throughout the time span of this research. Although her strategies for effecting change in her local context evolved, in her narrated model individuals were still the drivers of this change, which took place at local scales within local systems.

The case of Charlotte: a dialectical relationship. Like Franco's case, Charlotte's embodied and narrated dialectic were in alignment with each other throughout the time span of this research. For Charlotte, this meant that in her local sustainability work she embodied a strong sense of self-efficacy and her ability to effect change in local systems through passion, perseverance, and persuasion of others. This was in alignment with her narrated dialectic, in which individuals were the primary driver of change in local systems. Despite meeting barriers to local change through her sustainability work in the SLS, her embodied and narrated dialectic remained in alignment with each other throughout the time of this research. Table 6 summarizes the unique relationships between the students' embodied and narrated dialectics with attention to stability and change.

Table 6. Overview of stability, change, and the dialectical relationship for each student

Name	Stability	Change	Relationship
Franco	Before the SLS began, Franco was skeptical of an individual's ability to effect change locally. His encounters in the SLS with racism and xenophobia confirmed and reproduced this model. In his post interview this narrative remained stable. His experiences in the SLS did not challenge this story. Instead, it the story was confirmed.	Franco's narrated dialectic was place-based, meaning that when he experienced success in South Africa he revised his narrated dialectic to include a more clearly articulated mechanism for how individuals could contribute to large-scale change through local work within communities.	Franco's embodied and narrated dialectics were in alignment with each other, but dependent on place. He revised his model as experiences in different spaces afforded different opportunities for sustainability work. In our final interview he suggested that his efforts would be more effective in South Africa or other contexts where he had access to participation. He remained skeptical that he could effect meaningful change as a non-White, non-American in the rural Midwest.
Sarah	Although Sarah occasionally pushed back against ideas she disagreed with during the SLS, she remained a peripheral participant throughout the semester. Her own agency was enacted through silence and positioning herself as a critical listener and outsider. Her narrated model consistently situated agency in civic groups who worked towards equity.	As Sarah experienced ways of effecting change through her sustainability work in the SLS, she continuously revised her narrated model to have a more detailed description of how a community would construct equitable civic and economic systems that included marginalized voices. She continuously reflected on her own struggles with exclusion and the exclusion of minorities and used those experiences to revise her narrated model.	Sarah maintained a distinct tension between her embodied and narrated dialectic throughout the SLS. She was excluded from local dialectics in practice, and in turn described an ideal civic community that would successfully organize systems that were centered on equity and justice for people and the Earth. She did not experience this utopic system in the SLS or in other spaces, but instead spent time and energy articulating a vision of what this type of collective action might look like in abstract.
Amber	During the SLS, Amber described her actions as successful in facilitating dialogues across communities, particularly in her work with the Farm to Fork project. She ended the semester with a narrated model in which change was driven by individual mediators brought traditional and sustainable farming communities together. The mechanism for change in this model was a "ripple effect" where ideas and practices spread from local to larger scales.	Amber's narrated model changed after her internship at a local sustainable farm. Although she still situated the process of change in local agricultural communities, she questioned her own role in that change as she realized new challenges of sustainable farming she was unfamiliar with before this work. At the end of this experience she was actively questioning her role as mediator, and wondered if this model would produce the change she had earlier envisioned.	Amber witnessed tension and conflict between groups, and therefore worked to construct a narrated model where conflict was minimized via mediators who would facilitate conversation. Her narrated model had a mechanism for this she had not seen successfully executed in her own experiences. For example, she described a conversation with her father where their differing viewpoints where exchanged, but where his farming practices did not change in ways Amber had hoped. In her narrated model, however, this type of communication resulted in the transformation of traditional farmers' practices.
Charlotte	Charlotte's sustainability work in the SLS and her narrated model both consistently championed the work of passionate individuals across our pre, post, and delay post interviews. She consistently identified large, out-of-touch, ossified systems as barriers to change, and proposed local activism as strategies for effecting change for sustainability. Her experiences in the SLS confirmed this model.	Charlotte's frustrations with the slow change at Maple Glen caused her to develop strategies for working around stubborn individuals who were unwilling to take action for change. Although this experience helped her develop new strategies for working around barriers in her local sustainability work, she remained committed to an envisioned model where individuals were the drivers of change in local systems.	Charlotte's success in her own sustainability work was reflected in her narrated model that situated agency in passionate individuals who were willing to work for change. In this way, her embodied and narrated dialectics were very much in alignment with one another across the time span of this research. In her local sustainability work, she identified slow systems and stubborn individuals as barriers to change, and her narrated model was similarly constructed through stories of empowered individuals persevering through these barriers and mobilizing others to effect change.

CHAPTER 7

DISCUSSION, IMPLICATIONS, AND CONCLUSION

These results suggest that student positionalities in local educational and community

contexts shape (a) the sustainability work they are able to do in that space, and (b) how they then

envision the process of change for sustainability unfolding in other contexts across time and

space. The way they narrate the process of social change in abstract is then subject to continual

revision and iteration as they are positioned differently in new social contexts and embody new

dialectics, just as Franco developed a more elaborate mechanism for change at a local scale after

his sustainability work in South African communities, Charlotte began to revise her

interpretation of Christianity's role in American culture as a result of reading *Buffalo Shout

Salmon Cry,* Amber revised her role in her narrated dialectic when she felt overwhelmed with the

daily challenges of sustainable farming, and Sarah continuously revised her narrated dialectic to

provide a mechanism for the production of equitable systems at the community scale.

This means that the ways structures are picked up and transformed in local

communities—civic, educational, or other—may profoundly impact how our students imagine

the process of social change in different contexts, and how they envision their role in that

change. If they are excluded from participation locally, their narrated dialectics may lack local

mechanisms for change. If their local experiences provide opportunities for trying, failing, and

revising their narrated models, they may then have more opportunities to engage in the iterative

interplay between the embodied and narrated dialectics. If their local experiences confirm that

individuals are the drivers of change in systems, they may fumble when they meet systemic

barriers that render local individual agency impotent, without having a strategy for identifying

opportunities for larger-scale dialectical change.

Comparing Where Students Situate Agency in Their Dialectics

Dialectics that situate agency in individuals. Charlotte and Amber both situated their

own local sustainability work in the context of change of larger norms, rules, and structures.

They advocated for an analysis of local systems needed to empower leaders and facilitators to be

more effective agents of change. However, because of their commitment to individual agency,

they became considerably frustrated in the face of systemic barriers. When Charlotte's

Evangelical perspective was disparaged at the seminary conference, and when her desire for fast

change at Maple Glen was unsuccessful, she responded with frustration and anger. When

Amber's work on a sustainable farm proved unexpectedly challenging, she questioned her ability

to contribute to the change she wanted to see in traditional farming communities. Without

empowered mediators and leaders, they doubted change was possible.

Because agency was situated locally in their dialectics, when their individual actions did

not effect change they desired, they interpreted this as a problem. Developing programs and

curriculum and instruction that encourage students (particularly those who situate agency at a

local scale) examine their local work in the context of the dialectic, and to consider how

structures are reproduced in communities, might help disabuse them of the idea that they, or

other empowered individuals, are solely responsible for effecting systemic change for

sustainability. This may help lighten the discomfort they experience in the face of failure and

seek to identify larger, structural characteristics of the systems they are working to change that

might remain ossified even in the face of passionate, empowered, proactive leaders.

Dialectics that situate agency in groups. Franco and Sarah's dialectics situated agency

collectively. At the time of the SLS they were both skeptical of an individual's ability to

successfully effect change for sustainability. Their peripheral positioning in some local dialectics

of the SLS and surrounding communities meant disengagement and low expectations. This also meant that in contexts where they struggled to participate, they lacked access to the same try-and-fail opportunities that Charlotte and Amber had. In this case, encouraging Franco and Sarah to engage in a more systematic analysis to ensure their own participation might be insufficient.

A better option might be using the agency granted through the privilege and power as professors, teachers, community leaders, and instructors to create systems that work towards giving Franco and Sarah access to a more central role in local dialectics. This is not individual work. This is systemic, networked, collective work that— like Sarah and Franco noted— is necessary for participation from all community members, and therefore necessary for supporting equitable learning.

Although this research does not tell us how, we can take from this that we must work to (a) help Franco and Sarah develop a sense of efficacy in an individual's contributions, (b) help Charlotte and Amber temper their plans with knowledge of the system and consider the limitations of individual agency, (c) help all students use their privileges to develop and strengthen equitable networks to ensure marginalized participants can more easily contribute, and (d) help students use their privilege to dismantle local racist and xenophobic structures so that the actions, ideas, and identities of all students are legitimized in the local dialectic. Having students and professors write down how they envision the process of social change and then compare models might offer pedagogical strategies for helping them dialogue with each other about how to make the change they want to see in their own lives, their communities, and the world.

Another consideration when comparing dialectics is how Sarah's narrated sustainability dialectic explicitly rejected neoliberal ideologies. Her assertion that "being a good person in the

system that we already have will not save us" (post interview) spoke back to solutions that place the onus of change on individual action and behavior, drawing attention to her commitment to a sustainability dialectic that was driven by collective action to transform local structures. Recall this passage from the results chapter, in which Sarah specifically denounced the value citizens based on their monetary contributions to society.

> We are so focused on being successful and trying to appear worthy as humans. Especially in the US, success is measured by if you can make money. So the Earth isn't really in that picture. Other people's wellbeing isn't really in that picture. (Sarah, post interview)

Hursh, Henderson, and Greenwood (2015) have pointed out, like Sarah, that "we need to revisit how neoliberalism negatively impacts how humans relate to one another and to their environment" (p. 307). Sarah's envisioned model of social change demonstrates a clear commitment to situating agency in collective groups that will work to construct equitable systems that value individuals and the Earth.

Overall, these results suggest that students' local embodiment of the sustainability dialectic is predictive of how they envision the process of social change for sustainability in other spaces. This means that as these students move out of the SLS and into new time and space, they enter imagined futures that were shaped by their local experiences in the SLS. Considering that the professors do not have access to the contexts in which these imagined futures unfold, we might turn to a discussion of the embodied dialectics that were visible in the SLS and how the systems that emerged from this interaction did and did not facilitate learning and participation for all students during the semester.

Reproducing Large-Scale Structures Through Local Dialectics: Problems with Scale

Assuming that one goal of education is to work towards equitable spaces where all students learn, special attention to how large-scale structures interact with local agency may

provide some explanatory power for the learning that took place in the SLS. This raises a question about how large-scale structures were masked and hidden through their interaction in local-scale dialectics of the SLS. Below I examine two examples of this that emerged in my analysis: (a) the *Buffalo Shout, Salmon Cry* conversation, and (b) Franco's experience in Marietta and in Alfred's class.

Buffalo Shout, Salmon Cry. The first example involves Charlotte's and Sarah's conversations about *Buffalo Shout, Salmon Cry.* The two excerpts from this conversation included in Chapter 4 present a curious contradiction. David and Pierre, two professors in the program, explicitly position themselves as proponents of critically examining the harmful effects of European White hegemony and the consequent silencing of the Native American culture. Numerous times throughout the semester they used their own authority as professors to challenge hegemonic and racist structures. Their resistance to hegemonic structures was central to the critical storyline that emerged from the dialectic here and in numerous other times as well.

Their support of this critical reflection was visible when Charlotte, for example, resisted these structures as she reflected on the reading. When she shared her critical reaction to the author's denouncement of Christian hegemony in North America, both David and Pierre supported her exploration of these ideas. Her contributions to this conversation became central to the local dialectic: the hegemonic structures of White hegemony were collectively denounced. It is curious that, given their willingness to denounce these narratives in one context, they responded differently in another.

Later in the same conversation, Sarah posited that Native Americans were wrongly excluded from the dominant culture as evidenced by their need to change to fit in. In contrast to their response to Charlotte, both David and Pierre negotiated Sarah's claims. Her ideas were not

legitimized in the same way as Charlotte's. Sarah was sharing an example of a local, individual struggle that a Native American might have in contemporary interactions in North American hegemonic and dominant culture. Both David and Pierre minimized the specificity of Sarah's ideas by placing them in a broader context of generic human struggle. Pierre (a White American man) even drew a parallel between the silencing of the Native American experience with his own feelings of "unease" in certain social contexts. Sarah tried to use the conversation to expose historical racist structures, and David and Pierre took a "color-blind" approach (i.e., ignoring race) by suggesting that the Native American struggle to which Sarah was referring was simply a part of the human experience.

This raises a question: How is it possible that the professors were willing to use their own positions in the local dialectic to challenge the narratives of White hegemony at one point, but later in the same conversation unable to see how their participation in the dialectic served to reproduce the same structures that they earlier denounced? This might be explained with a consideration of scale. In Charlotte's discussion, David and Pierre were responding to large-scale narratives in both time and space: the history of White settlement over centuries on an entire continent. Collectively, the class worked to compose a storyline that comfortably denounced the White colonialist interpretation of that historical account.

In Sarah's situation, however, the local dialectic masked the presentation of the large-scale structures of White hegemony. Sarah was not telling an account of the erasure of an entire culture. She was addressing the struggle of a single Native American who had to deny her own cultural identity in order to be legitimized and accepted in White American dominant society. The local scale of the story made the large-scale structures less visible. David and Pierre did not see contradiction between these two situations. Perhaps because they had explicitly denounced

White hegemony earlier in the conversation, this denouncement precluded the critical lens needed to identify their role in reproducing these structures in their own interactions with Sarah. In other words, because the structures of racism were being reproduced through the agency of individuals who had denounced the large-scale structure of racism just moments before, the reproduction of racism that followed in Sarah's exchange remained unrecognized. The specific experience of the Native American (as told through Sarah's voice) was unwittingly silenced.

Franco's experience in Marietta and class. The second example of how large-scale structures were masked through the local dialectic was evident in Franco's experience in Marietta and during classes. Beginning with Marietta, the SLS faculty, staff, and students responded with forthright concern about Franco's encounter. Casey, Pierre, and other students reached out to him to show their support by asking him to talk about his experience. They openly denounced the act. They also suggested program changes that might help prevent similar events from reoccurring, suggesting that the students not go into the field to do work alone.

Despite the clear good intentions from the community, some responses to Franco's experiences minimized the racial context of the event. Pierre suggested that Franco had been through something that was a common part of the human experience, providing a colorblind response to a racially charged incident. He removed race from the story and framed the problem as one of "human struggle." Similarly, Casey traced the issue to the ignorance of individuals, not the local racist systems that were part of Franco's daily experience in the American Midwest. Both Pierre and Casey pointed to Franco's resilience, his ability to let these things roll off his back, and subsequent positive encounters as the primary mechanisms for reconciliation.

Similarly, Alfred was and is a fierce advocate for racial justice. His work developing educational materials related to food justice and sustainability clearly demonstrated his

commitment to creating equitable social systems. Alfred talked with me after some of his classes about how to improve his practice to help all students' voices be heard and to help them participate. However, being marked down in a presentation for not speaking "to an American audience" brought Franco to the point of anger. He shared this account with sincere disappointment and frustration. Despite Alfred's good intentions in other contexts, his central position in the local dialectic in that classroom at that time and space reproduced structures that negatively impacted Franco's learning and participation.

This raises a question: How is it that in one context the professors explicitly denounced the large-scale structures of racism and xenophobia, yet in other contexts reproduced the same structures they had denounced earlier? From Franco's perspective, Marietta was not an isolated event that resulted from a few ignorant citizens, nor was this an example of the human struggle that everyone experiences. What happened in Marietta was specifically a result of his Brown skin. From Sarah's perspective, the struggle of Native Americans to fit in needed attention to White supremacy and could not be explained through general human struggle.

In both of these examples—Sarah's struggle with the Native American story, and the community's response to Franco's experience— the local dialectic rendered the structures of racism and xenophobia unrecognizable to the instructors. The presentation of these structures was masked because the local actors in the dialectic had taken visible actions to denounce these structures and worked to challenge racist narratives at a large scale in other contexts. This blind spot made the development of a reflective critical introspection challenging to foster. Although this dissertation provides no evidence for how to foster this critical introspection, it provides evidence that there is a need for its development.

A Dialectical Response: Beyond Individual Solutions

Using the dialectic as a unit of analysis, as opposed to the individual or the system, deters the inclination to respond to this need by assigning individuals autonomous ownership of reproduction of harmful structures. It also dissuades us from assuming a deterministic stance that denies individuals located in these dialectics the capacity to transform local structures through critically reflective dialogue. The value in the agency/structure lens in this type of analysis is that it removes the inclination to assign the professors—who hold considerable power as figures of authority in the local dialectics that unfold in classrooms—a false sense of accountability, autonomy, or responsibility for participating in systems that privileged Christian, White, American narratives in the SLS. As insiders in the local systems, they may not have held the vantage points needed to identify how this was happening. Through my discussions with students and observations, they became visible to me, but this was clearly a collective effort and a function of our positionalities in the SLS. These results show that larger structures which are often invisible inform the way education happens locally. It is the hidden curriculum.

In line with a dialectical analysis, we must reject the conclusions that this hidden curriculum is due to intentional work of individuals. Instead, the dialectic as a unit of analysis stresses how the actors in this story are part of larger systems established over time through the collaboration between agency and structure. We are not left with a conclusion (e.g., "The professors are racist") but instead a question: "How can we support educational programs that take place in predominantly White institutions (PWIs) develop strategies for using their positionalities in the dialectic to challenge oppressive structures and produce more equitable local systems that engender student learning?" The focus on the interaction of agency and structure locally helps us concentrate on the systems that emerge from this dialectical interplay

instead of (a) falsely isolating the individual as the source of the problem, or (b) denying the professors capacity for resistance and transformation.

Using the agency/structure dialectic to interpret these four embedded cases in the SLS allows meaning to emerge that different perspectives might not afford. Neoliberal perspectives that privilege the role of grit, resilience, and perseverance as primary mechanisms for student success and achievement (Golden, 2015), for example, might conclude that Sarah is solely responsible to ensure her voice is included in the local discourse and that she failed because she lacked a certain personality trait; Franco's struggles to effect change in rural U.S. discourses might be viewed a result of his own inability to see past a few racist, ignorant individuals and figure out how to make his voice heard there; any failure on Amber's part to change the practices of local industrial farmers might be attributed to her impotence as a mediator instead of larger structures at work in Midwestern agricultural social and policy landscapes; and Charlotte's general success in playing a central role in local dialectics would be used as a model for others, who would be assumed to achieve the same success through hard work, enthusiasm, and effort.

Instead of placing the students on a "strength and resilience" spectrum in efforts to ascribe their success in transforming local dialectics with individual personality traits and choices, the agency/structure dialectic focuses on how the individual's agency interacts with structures in the local dialectics and the systems that emerge from that interplay. This deters the analysis from "blaming" or "rewarding" the individuals here for the unique positionalities they assumed in local dialectics, and instead focuses on the system as a whole and the affordances and constraints this offered, both to their own agency and also with respect to the structures present in that space and time.

Considering that this aims to be a dialectical analysis, I will turn away from

229

considerations of the students' unique experiences in the SLS and towards considerations of how we might, as educators, work to develop a collective critical consciousness in programs that serve these students. Overall, I argue that this must include a critical examination of our individual and collective positionalities within local dialectics, and then a discussion of how the local systems (in which we are all implicated) might be challenged and transformed through critical reflection, reform of our programs to focus on communities, and continued dialogue among educators, students, and scholars.

Implications for Environmental Education

  Rethinking local. Another implication for environmental educators might involve critical reflection on what "local" work means. To Franco, "localism" in general was not an effective strategy for change. He challenged this narrative in multiple contexts in the SLS, particularly at the seminary conference. From his perspective, locally bounded action might fail to identify the true drivers of inequity because local dialectics lacked the critical perspectives needed to resist the structures that constrained his work. In more specific contexts, Franco also found that he was excluded from many local dialectics in the region. Although this research does not provide evidence that might suggest how to respond, it does suggest that programs like the SLS might benefit from critically reflecting on who is positioned to effectively work for change locally, and who might be excluded from local dialectics because of how they are positioned in local culture.

  Assuming that all our students have equal opportunity to engage in local sustainability work, if left unexamined, enables the leaders in these spaces to pick up structures that privilege their own perspectives. For example, Franco and Sarah both felt that their perspectives as urban citizens were disparaged because they were assumed to be lacking in the local connection with nature and rural perspectives needed to develop a sense of care. Sarah pushed back against this

by arguing for urban, community-oriented social networking instead of nature study, off-grid lifestyles, and farming as a means of developing an environmental ethic. Franco's experience showed us that although exploring nature may have offered a valuable experience for some, it posed a threat to him in ways that other White American professors and SLS members did not face. We might consider how the structures that inform the norms of engagement in those spaces (wildlands, rural communities, etc.) might exclude culturally and linguistically diverse students from the same experiences professors who design the programs might have in the same spaces.

This line of discussion is not intended to disparage local initiatives, or to disparage place-based focuses in environmental and sustainability education programs. But in this work, we need to focus on whose voices are excluded and whose are included. Particularly in rural American spaces, the structure of pluralism may not be taken up in the sustainability dialectic in ways that promote access to participation for all students. Instead, structures of homogeneity, White supremacy, and xenophobia may be more prevalent.

Developing a collective critical consciousness. This critical analysis provides some explanatory power for how and why local dialectics produced systems that challenged learning and participation for all students. Some voices were valued over others. This leads to a clear need for strategies for the development of collective critical consciousness in our environmental education programs, particularly in PWIs. However, it doesn't provide evidence for how to do this. How do we move forward from this with a sustained critical consciousness? Critical race scholars propose multiple strategies for working towards the transformation of racist structures in education and other contexts (Delgado & Stefancic, 2012; Gay & Kirkland, 2003; Solorzano et al., 2001; Yosso et al., 2009).

One of the problems these results bring up is that because the dominant narratives of

American Whiteness seem hidden and benign in PWIs, the mechanisms for change are often not jump-started until People of Color enter these spaces and expose the oppressive structures through their own personal struggles. This places the burden of change and conflict on the outsider, who risks being labeled a troublemaker being excluded from the community, and then takes willingness and considerable effort from insiders to transform the established norms.

But how is critical consciousness proactively constructed in a community that is predominantly White, American, heteronormative, Christian, or dominant in other ways? In other words, how do insiders develop an outsider's critical perspective on their own dialectical participation in reproducing narratives that make some feel their stories are left out? At the most basic level, this probably means that White insiders will need to take the lead on these initiatives (as opposed to relying on marginalized insiders or outsiders to lead the reconciliation). They may not be present in number, and those who are present may be unfairly burdened with the responsibility of educating the White community members (or otherwise dominant insiders).

As we can learn from the rich body of literature on the intersections of critical race theory and education, one challenge in developing strategies for critically consciousness pedagogy is that Whiteness is not always thought of as a position, an identity, or even a race (Solorzano, 1997). Simply put, "Whiteness is positioned as normative" (Ladson-Billings, 1998, p. 9), and educators who are socialized in predominantly White communities and schools have a particularly difficult time recognizing Whiteness (Boutte & Jackson, 2013; Levine-Rasky, 2000). Because experiencing life as a White person may create the impression that their interactions are race-neutral, White persons may then go on to interpret others' interactions through a similarly colorblind lens. Additionally, they may feel that color-consciousness is a racist position (Delgado & Stefancic, 2013) and therefore actively avoid interpreting local events through the lens of race.

What are the consequences of ending this conversation about the reproduction of harmful structures through local dialectics in the SLS? In a synthesis of documented outcomes of colorblind approaches to teaching, Brownell and Coles (2016) have pointed to several potential consequences: lowering expectations for students of Color; missing opportunities to leverage students' funds of knowledge; privileging of White knowledge and ways of knowing; privileging White perspectives on historical accounts; describing racism as a thing of the past; and unwittingly perpetuating racial injustice to name a few.

As we engage in this work, as Ladson-Billings (1998) aptly cautioned, we must be careful to avoid the inclination to solve problems that are firmly rooted in long-standing structural histories with isolated workshops, writing exercises, or a discussion. These may be pieces of the solution, but working toward the development of sustainable critical consciousness about how we are positioned in local dialectics and how that impacts student learning is long-term, collective work. There is no ultimate diversity seminar. We must transgress simple celebration and appreciation of ethnic diversity. We must go beyond positioning ourselves on the side of the "good" and critically reflect on our roles in sustaining harmful systems. In this particular research context, that might mean offering to engage in regular reflections and discussions on these results with SLS faculty and students if they are willing. In a broader context, this might mean holding sessions on racial justice in environmental education at conferences, engaging in critical scholarship within our field, re-examining the curriculum in our programs, and through collective work through existing and new networks of environmental educators and scholars.

Fortunately, as Linda Delpit has reminded us, educators are positioned nicely to take the lead in constructing systems in our programs that work towards a more equitable dialectic:

Teachers are in an ideal position to play this role, to attempt to get all of the issues on the table in order to initiate true dialogue. This can only be done, however, by seeking out those whose perspectives may differ most, by learning to give their words complete attention, by understanding one's own power—even if that power stems merely from being in the majority, by being unafraid to raise questions about discrimination and voicelessness with people of color. (Delpit, 1998, p. 297)

One possible consequence of ignoring how local dialectics privilege certain voices and participation is that we risk sending our students a message of hopelessness in the face of seemingly ossified structures. This is a problem. We do not want to diminish our students' sense of hope that change is possible. John Dewey, for example, held the conviction that teachers and students had the capacity to reshape the entire narrative of society through the specific construction of discourse in classrooms and schools (Dewey, 1916). This message is inspiring to educators who seek larger change through work in local contexts and systems.

So what might this process of reconciliation look like in the SLS and environmental education? Brownell and Coles (2016) offer the suggestion that teachers write and read "personal narratives to explore and understand socio-historical positioning" (p. 17) as a means of developing consciousness. This might help develop local curricular and policy initiatives (e.g., critical examination of course readings, field trips, assignments, etc.) that would expose which narratives are privileged there. In their article *Advice to White allies: insights from faculty of Color*, Boutte and Jackson (2013) recommend making the focus of the reconciliation how to better improve educational opportunities for culturally and linguistically diverse students instead of focusing on the educators and their dispositions.

Boutte and Jackson (2013) have also offered advice, some of which may be helpful for developing reconciliation processes in predominantly White programs like the SLS:

Silence of racism is not an option;
Become familiar with academic literature on the topic;
Understand how racism is codified in policies and practices and how injustice is

normalized in schools and universities;
Be prepared to lose 'friends' as your status changes to an action-oriented ally;
Be willing to unlearn one's own racism and begin creating positive definitions of Whiteness;
White allies will have to let go some of their positions of privilege;
White allies will have to avoid upstaging the emphasis on People of Color;
White allies will have to make substantive changes in their courses. (pp. 632-638).

In line with these suggestions, Levine-Rasky (2000) has also offered a few suggestions for success in this process. First, she suggested that naming and identifying racism is not enough, and that participants in a process of reconciliation and transformation must also critically examine the local policies, systems, and actions of individuals that help reproduce White privilege in teaching and educational spaces. Second, she also cautions against the tendency of romanticizing the diversity of White heritage in the US as a means of removing themselves from the more generic White group that is associated with the reproduction of racist structures, and also against the tendency to focus on racist people instead of the racism of social rules, structures, and systems.

Hope. Environmental and sustainability education programs commonly aim to instill in our students a sense of agency, hope and self-efficacy. Considering these findings, we might temper this goal by remembering that telling them they can make change does not make it so. In response to these results, "Giving Franco hope" and "Giving Sarah a better sense of efficacy" would be insufficient, individual responses to a systemic problem. This approach has plagued the field of environmental education for years, where there has been a persistent curiosity in how to change individual behaviors and attitudes (Rickinson, 2001, 2006) at the expense of an examination of systematic and structural barriers to change. These types of conclusions problematically focus on decontextualized individual motivations and behaviors without considering the more nuanced systemic analysis needed to construct action plans that may

generate dialectical transformation. They work toward developing an individual's capacity to feel hope and empowerment. While we of course want to empower our students have capacity to make change, simply convincing individuals to be hopeful is not enough.

Instead, we might strive to embody local dialectics collectively in a way that aims to dismantle and transform the harmful structures—both in our programs and in the communities in which our students go to do their work— that engendered the lack of hope and self-efficacy that Franco or Sarah felt in the first place. We might consider refocusing our attention on how the dialectic can be used to transform the local expression of structures in a way that creates equitable systems that value Franco's body, ideas, and actions, and helps to ensure Sarah's voice is included in the decision-making process. We must look to the systems and consider how to transform them through enacting specific agencies through specific structures in time and space.

In the case of Franco, what would a more equitable response to his experience have looked like? How might the faculty there have responded to this incident in a way that (a) acknowledged and named the systemic nature of the racist structures that were being reproduced in the region, and (b) design a plan to use their positions as insiders (through race and culture and language) to producing new local dialectics that resisted the oppressive structures? How do educational programs that are in PWIs develop the critical consciousness needed to (a) create educational spaces that challenge racist and xenophobic norms, and (b) work in communities to construct systems where People of Color feel welcome?

Possible Future Directions for This Research

In the context of sustainability education. This research suggests that these students' narrated dialectics are informed by their interactions with the sustainability dialectic in local spaces. We might focus our work on helping students document their narrated sustainability

236

dialectics and to look to see how these change over time. For example, at the beginning of these programs we could ask them to write down a reflection on:

1. social change for sustainability they want to see in their own lives, communities, and the world;
2. barriers to that change;
3. the way they think that change happens (or mechanisms for change);
4. their role in that change (or where agency is situated).

This reflection might be followed by environmental problem solving projects (similar to those in the SLS) in community contexts (or other contexts of their choosing). Finally, they would return to their initial reflections and revise their ideas based on their new knowledge of the systems, barriers, and opportunities in the field. Through these assignments, we can encourage students to focus on the sustainability dialectics that are producing the systems in the places they choose to engage in their work, not necessarily on their own individual dispositions. However, reflecting on their own positionalities is an important component of developing critical consciousness needed to identify (a) their roles in perpetuating harmful systems, or (b) why they are able to be successful in certain kinds of work but fail in others.

In the context of teacher education. As a teacher educator, these findings also lead me to imagine how the sustainability dialectic might be translated and used in different educational contexts. Just like Amber, Charlotte, Franco, and Sarah, undergraduate education majors preparing to be teachers might also have visions of change they would like to see in the landscape of education, but struggle to participate in local dialectics in ways that effect visible change. I am interested in exploring how examining pre-service teachers' embodied and narrated dialectics in educational systems might shed light on pre-service teacher learning.

In the short term, teacher educators might design course assignments around the protocols developed for this research. For example, we might ask teacher candidates about the

change they want to see in their own practice and field placements. Then, after field work, they can return to these initial reflections and re-define the process they think will be necessary to effect that change with attention to their own individual role in the change as well as the agency and structures that may be a part of the dialectic in the classroom, school, district, and state in which their field placement took place. As a culminating activity, they could reflect on their work for change in a classroom or school through their own practice and revise their narrated models of social change for education based on their experiences.

On a slightly larger scale, we might interview pre-service teachers as they enter our programs about the change they want to see in education at multiple scales: in their own practice, their field classrooms, their schools, their districts, their states, their country, and the world. Before their formal preparation begins, what is they change they want to see in education across spatial scales? How do they envision the process of social change taking place? What are barriers to that change? And what is their role in that change? Exit interviews might be used to ask students to reflect on their experiences as part of our teacher preparation programs and to revisit their earlier stories of change. Interviewing teacher candidates who left the programs early would also be important here to help identify possible reasons for leaving (e.g., frustrations with ossified systems that they felt disempowered to change; exclusion from local dialectics).

On a longer time scale, we might benefit from longitudinal research on how teachers embody and envision the agency/structure dialectic as they work to effect positive social change in their own practice, schools, districts, and states. We could compare their narrated dialectics pre-program, post-graduation, and in their early careers to examine which experiences were key in transforming their narrated dialectics. Which unique challenges, barriers, and opportunities inform the way they embody and narrate the process of change in education?

Adopting a dialectical analysis of change in educational systems may help teacher candidates move away from thinking about their successes and struggles in teaching as a result of their individual practices, and toward a more systemic analysis of barriers to change they want to see in their schools, districts, and states. This might help challenge neoliberal policy narratives (Apple, 2016; Hursh, 2007) that focus on accountability of individual teachers at the expense of consideration of the structural factors that might also contribute to student learning.

Additional Considerations/Limitations

This points to the need for any research that uses the agency/structure framework to highlight the dialectic in their specific research contexts, and to use the framework to expose opportunities for transformation afforded through this dialectic. What it does not tell us is how to make the structures through which agency is being enacted visible. As a researcher certain structures and struggles were apparent to me because of my specific subjectivities and perspectives, but I still lacked ability to see all structures at work through the local dialectics I observed and participated in. Because of the intimate nature of qualitative case study research, other researchers or participants in the research might be able to identify structures that I did not.

Another consideration is that the critical analysis of the embodied dialectics requires exposure of structures that are picked up by individuals that contribute to the social norms of the space. The tensions that emerged were often most visible to be as an observer when students were working to resist these structures. This means that one might get the impression that the students, particularly Sarah and Franco, who struggled most to engage in local contexts, disliked the program. This is not true. The students spoke (in our interviews and interactions) highly of their general experiences in the program; many described it as the most transformative semester of their college experience. However, the value of the critical analysis is to identify the structures

that are often invisible, and these are made visible through conflict and struggle.

While this research suggests that reproducing this dominant narrative offered barriers to Sarah's learning as she wrestled with questions of faith, it could be that creating pluralist spaces that value the learning of students from various religious worldviews was *not* a goal of the faculty or the college in the SLS and Simons College. During my research there were multiple signs that Christian homogeneity was not seen as a liability but instead as an asset. While I would argue that the development of a critical consciousness towards Christian dominant narratives and privilege would be crucial in public institution or other institutions that want to create equitable learning environments for all students regardless of their religious worldview, this may not be important for the Simons community. For this reason I focused less on religion and more on race and culture in this discussion.

Another component of this research I have struggled with is the false dichotomy of the narrated and embodied dialectics in the analysis. Using the sustainability dialectic as an interpretive lens was chosen mainly because it focused the analysis on the interaction between agency and structure and the systems that emerged from that interplay. In the analysis I drew mainly on interview data to construct the students' narrated dialectics, and mainly on field notes and observations to construct the stories of their embodied dialectics. However, the lines between these two forms of learning were blurred and not easily separated. I had numerous memos in my field notes about what their actions and interactions in the local context of the SLS revealed about their narrated dialectics. Similarly, descriptions of change in abstract would often merge into reflections on their interactions in the SLS during our interviews, and I do not think it is necessary to separate them in order to extract meaning from their stories. However, for the purposes of this dissertation I drew distinct lines between the embodied dialectics and narrated

dialectics for clarity in story.

Another reflection is about "denying" certain stories within my data. As with any ethnographic case study, only a small amount of the data that were produced from this research was used in this dissertation. Numerous other stories—particularly those of gender roles, heteronormativity, the Christian/non-Christian narrative, and the tension between urban/rural solutions to sustainability—were omitted despite their meaningful presence during the time of the research. These stories are still embedded within the data and I may choose to examine these more in depth at a later point in time.

Finally, student learning in this research is told from a predominantly situated perspective. This means that my data and analysis do not provide evidence of cognitive reasoning to explain why the participants embody the dialectics in the ways that they do or what this means for their cognitive development (e.g., motivation, drivers of their embodied dialectics, etc.). Although some scholars have pointed to the value of an analysis of learning that draw on both situated and cognitive perspectives (Cobb, 1999), this research offers only the former.

Conclusions

Our students come into environmental and sustainability education programs with a clear commitment to making the change they want to see in the world. However, when they begin to engage in local sustainability work, they meet barriers. They become frustrated. This research leaves us with unanswered questions about what happens next: What role do we play as educators, program directors, and researchers in working to transform and produce local systems that facilitate equitable contexts in which our students conduct their sustainability work? Can teacher education programs use the agency/structure dialectic as a lens for interpreting the local work teacher candidates engage in the field? Can we use this framework to help them engage in

truly transformational action, targeting specific changes they want to see in educational systems? How do our students respond in the face of large, seemingly ossified systems? How do they identify opportunities for transformation and production of new futures? How do these lived experiences inform the way they imagine the process of social change for sustainability? Finally, how do we (as educators) help produce local equitable systems and contexts for learning that ensures participation and learning for all students?

This research suggests that students respond to these barriers largely in ways that are reflective of how they are positioned and how they position themselves in the local contexts in which they engage in their sustainability work. This means, for one, that different students will encounter different barriers that we as educators may not be positioned to predict or respond to appropriately. We should work to create reflective practices that develop critical consciousness in our collective programs. We might look for the interaction between agency and structure to help explain how oppressive systems developed in those spaces initially, and how they continue to be perpetuated through our local actions, even if the oppressive structures may be presented differently at a local scale and therefore difficult to recognize.

This may mean asking "outsiders" for help identifying the ways we, as agents, may be reproducing structures that exclude our students from full participation. This means talking openly about race, class, and dominant culture, and how these constructs are picked up in local communities. This means re-examining our assumptions that "local" work is the best way to make change, and consider how our own experiences lead us to advocate for work in contexts where the dominant narratives privilege our own identities and subjectivities. This may also mean using the agency/structure dialectic to expose narratives in our field that blame individuals for failure to effect change in local systems. Re-framing the conversation towards a systems

analytical approach (as opposed to an analysis of individual decision-making, skill, and merit) might help our students and colleagues get closer to the critical analysis needed to begin working to resist the harmful structures that persist in our local spaces and keep our students from making the changes they want to see in their own lives, their communities, and the world.

APPENDICES

APPENDIX A Pre Questionnaire and Interview Protocol

1. What is your name?
2. What is your major?
3. Which college/university do you attend?
4. Where are you from (e.g., your hometown, where you grew up)?
5. In what year of college are you? (FRESHMAN/SOPHOMORE/JUNIOR/SENIOR/OTHER)
6. How do you define sustainability?
7. How did you first become interested in sustainability?
8. Why did you enroll in the SLS?
9. What do you hope to get out of this program?
10. Describe your ideal sustainable lifestyle.
11. What sustainable "practice" is most important to you? A "practice" is anything that you do regularly to try to live your ideal sustainable lifestyle.
    a. Why is this important to you?
    b. What do you think is the effect of this practice? (e.g., how will it change your life? How will it change your community? How will it change the world?)
    c. How do you think this practice enables current and future generations to meet their needs?
12. What "practices" do you do in your life that you consider "sustainable?" List as many as you can think of.
    a. Why do you do these practices?
    b. Sometimes people define sustainability as a way of organizing society to "meet the needs of the present without
13. What "practices" do you do in your life that you consider "unsustainable?" List as many as you can think of.
14. Are there any sustainable practices that you want to do, but are unable to? YES/NO
    a. What are they?
    b. Why are you unable to do them?
15. How easy or difficult will it be for you to live your ideal sustainable lifestyle at SLS?
    a. Please explain your choice. Why will it be easy or difficult?
16. What do you think is the best way to make your life more sustainable?
17. What do you think is the best way to make your community more sustainable?
18. What do you think is the best way to make the world more sustainable?
19. Do you identify as a Mennonite? YES/NO/OTHER
    a. If yes, please explain your connection to the Mennonite culture or religion.
        i. If yes, does your connection to the Mennonite religion in any way influence the way you think about sustainability or your sustainable practices? Why or why not?
    b. If no, do you identify with any other religious culture or institution?
        i. If yes, does your religion or worldview in any way influence the way you think about sustainability? Why or why not?
    c. If other, please explain.
20. How do you define citizenship?
    a. In your opinion, what are your responsibilities as a citizen?

21. During the SLS, what is the best way to contact you if I have any questions?
22. What are you planning on doing after the SLS?
23. What are you planning on doing after you graduate from college?
24. Do you have any questions for me about this research?
25. As I explained in the introduction meeting, only Andy (my advisor) and myself have access to raw data from this research (interview transcripts, audio files, field notes, etc.). However, once the data are de-identified, IRB allows me to share the data with others to get feedback on the analysis for possible eventual publication. This includes draft chapters of my dissertation, as well as drafts for publication. These manuscripts may include excerpts from your classes, which means that your words might be included in the analysis. As participants, you will be given the opportunity to read any and all of the papers that result from this research before they are shared with anyone other than Andy and myself. I will assign you a pseudonym for the analysis. If you would prefer, you can select your own pseudonym. This way, so you can recognize any of your words that are being used in the analyses in the case that you have any questions about the data being used, my interpretation of the data, or if you would like to request that I remove this data from the paper (this is up to you).
    a. Please choose a pseudonym for me.
    b. Please use this pseudonym so I can recognize myself in the analysis and papers:

APPENDIX B Post Questionnaire and Interview Protocol

1. Which experiences in the SLS have been the most notable or memorable for you?
2. What parts of the program did you like the least? Why?
3. Have any of your ideas changed as a result of the program? If so, what?
4. In my dissertation, I will write a short profile of you for readers to understand. What do you think is important for people to understand about you to know you?
5. At the beginning of SLS, you defined sustainability like this: _____
6. Has that changed? If so, how?
7. At the beginning of the SLS, you defined citizenship like this: _____
8. Has that changed? If so, how?
9. What are the actions of a good citizen?
10. What are the responsibilities of a good citizen?
11. What is a Mennonite's understanding of a good citizen?
12. What is your faith community's idea of a good citizen?
13. How do you think your religious worldview impacts the way you think about…
    a. Sustainability?
    b. Citizenship?
14. What does community mean to you?
15. To what community (or communities) do you feel most connected?
16. Describe your ideal sustainable…
    a. Lifestyle.
    b. Community
    c. World
17. What do you think is the best way to make your _____ more sustainable?
    a. Life?
    b. Community?
    c. World?
18. What changes need to happen in _____ to make it more sustainable?
    a. Your life?
    b. Your community?
    c. The world?
19. What are barriers to those changes (i.e., what is stopping them from happening, or what makes it difficult for these things to happen)?
20. What have you learned from the SLS about how to make change in your life, the community, and the world?
21. What actions are necessary to make these changes possible?
22. What sustainable practices did you do while at SLS? List as many as you can think of.
23. What practices did you do at SLS that are *unsustainable*? List as many as you can think of.
24. At the beginning of the SLS you identified the sustainability practice that was most important to you, which was: _____
    a. Were you able to do this at the SLS?
    b. What about the SLS helped/hindered your doing this practice?
25. What sustainable "practice" is most important to you now? A "practice" is anything that you do regularly to try to live your ideal sustainable lifestyle.

     a. Why is this important to you?

     b. What do you think is the effect of this practice? (e.g., how will it change your life? How will it change your community? How will it change the world?)

     c. How do you think this practice enables current and future generations to meet their needs? Why or why not?

26. What practices are most important to you to keep doing after you leave here?

     a. Why is this practice important?

27. What do you think will be difficult about maintaining that practice?

28. What was most challenging to you about your EPS project?

29. Why did you decide to do the EPS project you selected?

30. What did you learn from doing the EPS project?

31. What was most rewarding about the EPS project?

32. How are your ideas about sustainability different from or similar to your classmates' and professors' ideas?

     a. In what ways are they different?

     b. In what ways are they similar?

33. How are your ideas about citizenship different from or similar to your classmates' and professors' ideas?

     a. In what ways are they different?

     b. In what ways are they similar?

34. In am interested in how you feel like an "insider" and an "outsider" at Simons. In what ways do you feel like an insider/outsider with respect to…

     a. …your ideas about sustainability?

     b. …your religious worldview?

     c. …your ideas about citizenship?

     d. …your ideas about environmental justice?

     e. …your ideas about Politics and Policy?

35. How optimistic are you about the world's ability to make the world sustainable? Put yourself on a scale, 1-10. Why did you give yourself this number?

36. Where are you going after you leave the SLS?

     a. What will you be doing in this new place?

37. Do you envision that you will be able to maintain your target sustainable practice after you go?

     a. Why or why not?

     b. What practices do you think will be more difficult to keep doing?

     c. What practices do you think will be easier to keep doing?

38. I will be contacting you in about six months to conduct our 3rd interview. How can I contact you when you are in your next place? Email? Phone?

39. Is there anything I didn't ask you about in this questionnaire that you'd like to tell me about?

APPENDIX C Delay Post Questionnaire and Interview Protocol

1. What have you been doing since you left SLS?
2. What were the most memorable experiences you remember from SLS?
3. Have any of your ideas changed since you left SLS? If so, what?
4. In my dissertation, I will write a short profile of you for readers to understand. What do you think is important for people to know about you?
5. At the beginning of SLS, you defined sustainability like this: _____
6. Has that changed? If so, how?
7. At the beginning of the SLS, you defined citizenship like this: _____
8. Has that changed? If so, how?
9. Describe your ideal sustainable…
    a. Lifestyle.
    b. Community.
    c. World.
10. What changes need to happen in _____ to make it more sustainable?
    a. Your life?
    b. Your community?
    c. The world?
11. What do you think is the best way to make those changes in your _____?
    a. Life?
    b. Community?
    c. World?
12. What are barriers to those changes (i.e., what is stopping them from happening, or what makes it difficult for these things to happen) in…
    a. Your life?
    b. Your community?
    c. The world?
13. What are the actions of a good citizen?
14. What are the responsibilities of a good citizen?
15. What is a Mennonite's understanding of a good citizen?
16. What is your faith community's idea of a good citizen?
17. How do you think your religious worldview impacts the way you think about…
    a. Sustainability?
    b. Citizenship?
18. What does community mean to you?
19. To what community (or communities) do you feel most connected?
20. What sustainable "practice" is most important to you now? A "practice" is anything that you do regularly to try to live your ideal sustainable lifestyle.
    a. Why is this important to you?
    b. What do you think is the effect of this practice? (e.g., how will it change your life? How will it change your community? How will it change the world?)
    c. How do you think this practice enables current and future generations to meet their needs? Why or why not?
21. How optimistic are you about the world's ability to make the world sustainable? Put yourself

on a scale, 1-10. Why did you give yourself this number?

22. What are you going to be doing in the next 6 months?
23. Do you envision that you will be able to maintain your target sustainable practice during that time?
    a. Why or why not?
    b. What practices do you think will be more difficult to keep doing?
    c. What practices do you think will be easier to keep doing?
24. I will be contacting you in about six months to conduct our 4th interview. How can I contact you when you are in your next place? Email? Phone?
25. Is there anything I didn't ask you about in this questionnaire that you'd like to tell me about?

APPENDIX D Transformational Outcomes

Sustainability Leadership Semester
Developed through "Backward Design" October – November 2011
Transformational Outcomes – How will students be different at the end of this experience?

At the end of this experience students will be able to….

Sense of Place
1. Describe the basic ecosystems present at Merry Lea and what makes them distinct from each other.
2. Diagram the water movement across the Merry Lea Property and more generally for the Elkhart river watershed
3. Describe the experience of Sense of Place valued by people within the watershed both historical and current.
4. Recognize common flora and fauna of Northeast Indiana

Working Together
1. Describe models of community that contribute to healthy cooperation in problem solving
2. Describe strengths of community members including themselves and how diverse strengths contribute to group success
3. Articulate a model of problem solving that draws on expertise from multiple perspectives
4. Describe how they contributed to his or her colleagues learning experience?

Leading from the Heart
1. Describe how their personal beliefs and values are reflected in their approach to leadership
2. Effectively manage and lead learning community responsibilities
3. Present environmental issues to others in inspiring ways

Self in relationship with All Things
1. Identify life-style decisions that are a part of living sustainably
2. Complete a variety of self-assessments that reveal personal strengths and approaches
3. Describe direct and indirect ways that humans affect their watersheds

Hope
1. Articulate why they have hope in the possibility of environmental change.
2. Defend the value of hope in effort to promote positive change
3. Predict positive outcomes as a result of sustainability efforts

Challenged and Engaged
1. Actively engage in community and learning setting opportunities
2. They have multiple tools to recognize and address Challenges
3. Formulate critical questions
4. Use critical thinking skills to identify underlying problems

5. Describe the complexity of environmental issues and environmental solutions
6. Recognizing inflexibilities in the system
7. Articulate how learnings from this experience can be lived out in other settings

Creative Problem Solving
1. Select an appropriate problem solving model to address an environmental issue
2. Apply ecological systems thinking to environmental problems
3. Demonstrate how they will engage voiceless groups in a decision making process.
4. Clearly articulate a complex issues and identify areas of potential positive action
5. Generate a range of solutions for problems that reflects diverse interdisciplinary perspectives
6. Synthesize successful approaches and apply them to new situations

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