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# Somewhere "I can live": Youths' Conceptualizations of Nature and the Outdoors in Worcester, MA

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ABSTRACT

Somewhere "I can live": Youths' Conceptualizations of Nature and the Outdoors

Sarah Jane Bertrand

This paper describes the methodology, findings, and implications of research project attempting to understand youths' conceptualizations of nature and the outdoors. Drawing on and responding to literature that calls for the prioritization of youths' voices and describes nature as a constructed concept, I interviewed five youth residents of Worcester, Massachusetts, a mid-size city in New England. Using discourse analysis, I also attempt to understand what influences these youths' conceptualizations of nature and the outdoors. The youth expressed nuanced and complex ideas about nature and the outdoors, situating these ideas within broader conceptualizations of the environment. They also suggested that these conceptualizations are fluid. I conclude by identifying the implications of these findings, particularly in relation to youth work practice, in which, I suggest, dialogue, discourse analysis, and similar tools can be useful means of connection and understanding.

Academic History

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**<u>Introduction</u>**

Present and pending environmental crises and environmental injustices permeate

communities on local, national, and global levels. A discussion of environmental issues

including climate change and exposure to toxicity would be incomplete without

acknowledging the "inequality at the heart of the environmental crisis" (Bigelow &

Swinehart, 2014, p. xi). The inequitable experience of such crises, dependent on factors

including race, class, geography, gender, and age, is a key feature of them. Furthermore,

environmental injustices are not only inherent in these crises, but also in everyday

systematic functioning of societies. Identity is a major determinant as to who has access to

"the good" aspects of the environment and who is exposed to "the bad."[1]

Worcester, Massachusetts, the second largest city in New England, is no exception.

Class, nationality, and color have guided the very construction of the city: immigrants and

the poorest residents lived closest to the factories and most directly bore the burdens of

pollution during the city's industrial development (Ranjan Sinha, 2009). This historical

inequity and its legacy—including its impact on the physical spaces of cities—persist

today. New, old, and reconfigured forms of spatial and environmental injustices continue

to thrive.

Simultaneously, people, particularly children and youth, increasingly lack contact

with the outdoors. Louv (2008, 2011) outlines this phenomenon in addition to the benefits

of exposure to nature. "For a new generation," he argues, "nature is more an abstraction

than a reality" (2008, p. 2) Attributing this phenomenon to changing societal, educational,

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[1] This description of environmental injustice derives from conversations with people active
in local efforts toward environmental justice and from the definition that the outdoor youth

and technological norms, he adds, "at the very moment that the bond is breaking between the young and the natural world, a growing body of research links our mental, physical, and spiritual health directly to our association with nature" (2008, p. 3). In his books, Louv advocates for the repair of this ruptured bond, which, he contends, is essential to the wellbeing both of human beings and of the planet. Others would agree with Louv that access to and contact with nature is essential to appreciation of the outdoors, which in turn, is fundamental to fostering environmental stewardship (Wals, 1994, p. 3). From this perspective, connection to place and to environment is prerequisite to taking action towards modern-day environmental crises.

Environmental crises and injustices, including differential outdoor access, are worth addressing in and of themselves. However, Wals (1994) identifies an additional issue, associated with the identification of and approaches toward these problems: a lack of understanding of youths' experiences and understandings of the outdoors among those trying to remedy these issues (p. 2). Strife and Downey (2009) echo this concern, suggesting that existing literature does not sufficiently consider age in addition to and in conjunction with other factors related to environmental injustice. Inherent in discussions of environmental injustices and reduced access to the outdoors are certain assumptions, which I have made myself, and, which, in fact, were present when I initially approached these issues and this project. Frequently excluded from identification and discussion of the problems are the people most directly involved. Yet calls to address environmental crises and injustices lack resonance if not grounded in peoples' experiences and perceptions. For any attempt at changing a situation to be relevant or effective, it must recognize,

understand, and build upon the realities of those involved (Wals, 1994, p. 2). I argue that it is necessary not only to include but also to prioritize youths' voices, such that their epistemologies are incorporated into policies, programs, and other efforts to address environmental crises.

It is important to consider how accessibility and perceptions of the outdoors are themselves shaped by our positionality and experiences. For example, Louv's perception of the environment as something valuable and desirable—and his interest in proving so—is as shaped by experience, identity, and societal factors as is the perspective of somebody who perceives the outdoors as unimportant, boring, or unsafe. We need to "validate" all experiences and perceptions and the "why's" behind them (González, 2005, p. 42), taking barriers to outdoor access seriously.

Another dimension of this project involves untangling (and re-tangling) my own positionality from my approach to this research. As I ask how others' identities influence their experiences of place, it is important that I examine my own—and challenge my notion of my own experiences as absolute. If I am to work with youth, I consider it important that I am open to and understand youths' experiences of the outdoors and of place (among their experiences and perceptions of other dimensions of the world), with the intention to listen and accept where and who they are in any given moment. Youth matter not only in who they will become, they also matter right now (lovers, haters, neither-nor, both-and, and those indifferent about the outdoors alike).

**Research Questions**

- How do youth in Worcester define and conceptualize their environment(s), particularly nature and the outdoors?[2]

- What influences youths' conceptualizations of nature and the outdoors?

- What are the implications of youths' conceptualizations of nature and the outdoors for youth work practice?

**Story of the Questions**

These questions have a history since being formulated and a history before that, too. These histories are not exclusive from each other, but I will begin with the earlier history, which is of me as a white, middleclass girl who has long been interested in "nature," or at least surrounded by family members who were and thought I was, or should be, too. As a 12-year-old, I had books like *How to Write a Nature Journal* and a video documentary from my grandmother about wild turkeys. I had access to a backyard, and on visits to grandparents, to walking trails and to acres of forest and defunct farmland. Farming and outdoor work are in my family's history and celebrated in the present.

Whether related to this exposure to the outdoors or not, something in me translated into a sometimes-fierce ethic of preservation and alignment with "nature." I wished that

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[2] In my research questions, I use the word "environment" as a broad term, including all forms of surroundings, as defined by Taylor (2000) and the environmental justice paradigm. I frame "nature" and "the outdoors" as some of the many components of the larger concept of "environment." Although "nature" and "the outdoors" are the focus of this study, through the iterative process of researching, I have found it necessary to contextualize them within the broader "environment" if I am to reflect youths' understandings of them, rather than imposing my own or a dominant conceptualization of nature and the outdoors.

President George W. Bush would just sign the Kyoto Protocol already and ban drilling oil in Alaska. I did not consider that my experience and perception and conceptualization of "nature" were different than anybody else's or that they were influenced—and constructed—by my positionality.

Since then, I have embarked on an ongoing realization that experiences and perceptions of nature, the environment, and the outdoors are inevitably linked to race, socioeconomics, gender, nationality, and geography. You cannot isolate the environment from people, however much people (like myself) try to do so, however forceful an environmentalism that focuses on preservation without consideration of human welfare may seem and has been. This began my interest in "environmental justice," which seemed to correct my prior misconception and reassure myself that I didn't have to choose between advocating for people or advocating for the environment.[3]

I began this research by claiming that access to the outdoors and nature is a question of environmental justice, under the unexamined assumption that the outdoors is valuable to all who experience it. Frustrated by what I saw as development "gone wrong"—or at least, gone inequitably—in the United States and by claims of sustainability that really just meant buying a new light bulb compared to genuine sustainability that people didn't even think about, I thought I was on track to challenging what I perceived as my former tree-hugger but not necessarily people-hugger self. I have gradually realized that I am actually making an assumption of others' experiences of place and the outdoors and failing to adequately examine my own. So, more recently, my question has evolved to

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[3] Van Jones frames the "choice" between human and environmental wellbeing as a false binary in *A People's Curriculum for the Earth.*

become, what are youths' experiences of place and the outdoors in Worcester? How do they conceptualize of nature and the outdoors? Because honestly, I don't know, and this is important to know if I'm advocating equitable access to both.

On closer examination, my access to and experience of place has been framed by privilege: class, race, and geography (and, yes, the privileged side of environmental injustice). The very reason I could postulate that exposure to nature is of benefit is because I have had access to it and because I have benefitted from it—thanks to my family's mobility, to property ownership, to the racially and socioeconomically imbued access to land in New England. Therefore, this research has also been a process of recognizing this piece of my own identity and bias, and forced me to ask, what exactly has made the outdoors important to me?

I thrive in what I perceive as settings with no mirrors and no judgment. Outside, I claim I am able to be "myself," and my identity expands: I am not just silent, awkward, and ignorant, but also strong, capable, and perseverant. An adult staff of the outdoor youth program with which I worked described one of the youth as "at his best" in that program; to some extent, I feel like I am at my best in contexts like that, too. Outdoor spaces have nurtured both my intra- and inter-personal selves; they have facilitated community- and relationship-building based on authenticity. In the words of the director of the camp with which I have worked, nature reminds us that "everything belongs": snakes and spiders belong, as do flowers; anger belongs, as does happiness. Certain places and plants are linked to some of the people most influential in my life. It has taken a long time for me to realize that perhaps the "outdoors" I am talking about is a very personal one.

**Theoretical Framework**

Strife and Downey (2009) demonstrate that existing literature addresses some aspects of environmental inequity, including its relevance to race and class, but argue that it has not sufficiently considered youths' experiences in conjunction with these factors. They advocate for further and multidisciplinary research regarding the existence of youth-based environmental inequalities, including differential access to the outdoors, and the reasons behind such inequalities.

Several studies respond to this lack of research and seek to understand youths' experiences of place. Rigolon and Flor (2014) focus on youth access to parks and play as an issue of environmental justice. However, they base their assessment of problems on empirical data without consulting youth themselves. Furthermore, they assume the solutions they propose will be effective toward resolving that problem. In contrast, Woodgate & Skarlato (2015) advocate for youth input toward policies that affect and involve youth, specifically in the realm of health and environment. They contend that youth conceive of health differently than academics or policy makers. Platt (2012) also seeks to understand children's perspectives and experiences of outdoor spaces in Milwaukee, Wisconsin, contrasting their perception of vacant lots or underused areas as valuable with the consideration of them as "blight" or "liabilities" (205, 208).

Like Woodgate and Skarlato, Wals (1994) argues that for environmental education to be effective and inclusive, it must build upon youths' knowledge and experiences, which differ according to context and individual. In literature that does seek to understand youths' experiences of place, including the aforementioned studies, researchers focus

singularly on youths' experiences of nature and green spaces. On the other hand, studies

including Travlou's and Cahill's that do seek to articulate youths' experiences of their

environments and cities do not specifically take nature or green spaces into account. In

effort to recognize the potential fluidity among these spaces in youths' understanding and

to challenge a strict categorization of spaces, I attempt to gain a holistic understanding of

youths' conceptualizations of their environments, which, I believe enhances my

understanding of their conceptualizations of "nature" or "the outdoors" specifically.[4] This

approach also draws from the environmental justice framework, as outlined by Taylor

(2007), who advocates for an expanded definition of environment, including not only

spaces of "wilderness" but also spaces where people live, work, and go to school. The

environmental justice framework incorporates the experiences of people of color, contrary

to historical mainstream environmentalist movements in the United States, which have

favored the voices and experiences of white people (Taylor, 2007, p. 524-525).

Cahill and Haluza Delay provide useful lenses with which to understand youths

"readings" of their environment. Cahill refers to youths' interpretations and knowledge of

their surroundings as "street literacy," which in turn, guides their responses to their

environments. Haluza Delay offers the concept of constructivist learning, in which the

learner (or in Cahill's framework, the reader) is an actor rather than a passive recipient of

information. Freire, similarly, describes literacy as an "act of knowing" and a "creative

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[4] This approach results from preliminary research findings. During interviews I found that youth included spaces and ideas in their conceptualizations of the "outdoors" and the "environment" in addition to "nature" and "green spaces." These included the mall and the dollar store. The youth with whom I spoke suggested that these spaces are not mutually exclusive, and that enjoying one space does not prevent someone from enjoying the other.

act" (1983, p. 10) and expands the concept of reading to include not only written words, but also, and foremost, the world (1983, p. 5). In accordance with a critical epistemology, I adapt a similar approach, considering youth the experts and actors in the creation of their realities.

In addition, this research looks at theories of the benefits of nature exposure and access through the lens of an environmental justice framework, which portends that experience of environment is linked to social positionality (Taylor, 2007). In addition to questioning the definition of "environment" and asking who is doing the defining, I attempt to do the same for the concept of "nature." Thus, I attempt to answer the question "how do youth conceptualize nature and the environment," rather than analyze their experiences in relation to a preset definition of the environment and nature. This reflects Wals' description of nature as a social construction based on idiosyncratic experiences, influenced by factors including location, age, race, class, and culture (1994, p. 5).

I plan to follow Woodgate and Skarlato's example, justifying my focus of study and approach in the fact that youth voices are frequently marginalized in public contexts. I plan to expand upon their approach by further contextualizing where youth are from, under the premise that youths' relationships to place are grounded in the specifics of the places themselves and in the specifics of youths' identities and experiences. I agree with Wals' conviction that youth experiences should be heard; yet my objective lies not in applications of youth voices to environmental education, but in justifying the inherent value of youth voices and advocating for the expression and listening to them. I would add that the applications of this expression are not limited to the field of environmental education.

**Methodology**

  This research adapts a critical epistemology lens its emphasis on validity rather than a rational, definite truth (Carspecken, 1996). Validity, in turn, depends on communication as a means to arrive to a consensus (Carspecken, 1996); for this reason, this research relies on discourse analysis and focuses on communication of ideas through spoken language. Discourse analysis provides a lens into not only what we say, but also what we *mean* with what we say, including what claims we make as we speak about our identities, emotions, and worldviews. In considering people experts on their own experiences, discourse analysis seeks not one truth, but multiple truths.

  This qualitative study falls into the interpretive paradigm and draws from a variety of methods and methodological paradigms. It lacks many characteristics of participatory action research, but it does attempt to be responsive to youths' input and direction and to be a study "with" rather than "on" research participants (Hennink, 2011, p. 45). The implications of this research are intended to be action-oriented, particularly toward youth work practice. To the extent that it served as a forum for reflection on my part and speaks to my own youth work practice, this study also adopts some elements of an auto-ethnography. My research questions and focus have continually evolved, including at times apparently disjointed themes, in attempt to ask everything that interested me, in attempt to look both outward and inward. I hope that this paper is more cohesive than the process.

**Sample**

  The majority of this research took place in association with an outdoor youth employment program during the summer and fall of 2015. The program annually hires

approximately 40 low-income youth. In addition to volunteering with and observing the

summer program, I interviewed three participants, all of whom had significant experience

in the program. The interviews provided me an opportunity to further examine my

experience as a participant-observer, and my observations helped triangulate interview

data. Several of my interview questions, for example, were based on what I knew about the

program (for example, the application and selection process); and I looked back at my

memories and written observations of the program in order to contextualize and seek

further support for youths' claims in their interviews. Professor Jie Park put me into

contact with a student and an alumna of a local high school, unassociated with the outdoor

youth program, whom I interviewed as well.

My interviewee sample is a small and select group of youth. One limiting factor is

age; my sample size of interviewees is limited to youth ages 18 and over who provided

consent for themselves.[5] Another limiting factor is the selectivity inherent in the pool of

program participants. Questions to consider include: Does the program attract youth with

certain understandings and relationships to place? Does the program foster certain

understandings of environment? I rely on interviewees' longitudinal perspectives of their

lives and of those of other youth, as well as on my observations of the program to attempt

to help address these limitations. The perspectives of youth not involved in the program

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[5] The fact that the people I interviewed are socially categorized and may self-identify as both "youth" and "adults" emphasizes the socially constructed nature of both words. Throughout this paper, I use "youth" to refer to the people I interviewed, and more generally, as people between the ages of 15 and 24, adapting the United Nation's definition of youth as "a period of transition from the dependence of childhood to the independence of adulthood," taking into account factors of education and employment. I also choose to use the word "youth" to distinguish their systematic power in comparison to "adults," and the resulting need to highlight youths' voices.

also helps broaden the range of experiences this study takes into account. In part because my sample is very small and select, I have to be careful not to generalize findings. Rather, I suggest that individual experience matters in shaping perceptions of the outdoors and that such experiences are fluid and variable even within an individual.

Below are brief descriptions of the youth, who generously offered their time to speak with me. Their names have been changed to protect their privacy. All are youth of color, representing a variety of ethnicities and nationalities.

- **Jonathan** is a lifelong Worcester resident. He is currently a college student. He has paved the way for youth leadership within the outdoor youth program and is very familiar with the city's college network and other activities and spaces for youth. His interpersonal energy as well as his thoughtfulness emerged in his interviews.

- **James** is an experienced outdoor program participant and is admired and looked up to as a role model and mentor, particularly among first-time participants. He has lived in Worcester since he was a child, when his family emigrated from West Africa. He studies at a local college and pursues various interests and talents. His insight and identification of himself as a learner were clear in our conversation, and his sense of humor permeated the program over the summer.

- **Isabel** is a lifelong Worcester resident whose family emigrated from the Dominican Republic. She is familiar with both places, and in interviews, her wisdom and familiarity with both cultures and places emerged. She is a recent high school graduate and is currently attending college. She highly values her own and others' capacities to support other people. She currently bridges college and home, and in

addition to fulfilling academic and family responsibilities, she maintains a part-time job.

- o **Sandra** is also a recent high school graduate and now a college student. She has lived in the city throughout her life and has several years of experience in the outdoor youth program. She has shone as a leader and mediator in the organization and has encouraged other youth to participate in the program. Her deep knowledge of and involvement in the community were evident in her interviews. In addition to studying, she works with a nonprofit organization.

- o **Luis** is a senior in high school and has lived in Worcester for four years. He and his family emigrated from the Dominican Republic. At the time of the interview, he was engaged in the college application process. In the interview, he revealed his expertise of two countries, communities, languages, and cultures. He is involved with local community efforts and within his school, and is deeply knowledgeable not only of the neighborhood where he lives, but also of many other places in the city.

**Data collection**

During the course of the outdoor youth program, I struggled to reconcile my identity as a researcher and as a program participant. My identity as a researcher was not something I wanted to admit to myself and even less so to the youth and adult staff and volunteers. Somehow it seemed that researching meant compromising my role and authenticity as a volunteer. "Research," I thought, came with the baggage of institutional

academia, with racial and socioeconomic implications, and would come with benefits only for me. What was I doing this for besides getting a degree? More than "researching," but maybe not more than worrying about my role as a researcher, I was caught up the day to day triumphs, tragedies, conversations, bouts of laziness, highs, lows, and in-betweens that even as a whole-hearted researcher I couldn't have ignored. Researching did, however, provide a lens through which to engage and experience the program and forced me to recollect and reflect on conversations and experiences after the fact. Certain conversations or remarks were engrained in my memory, and I recorded them later in the day or week. Reflection seemed like a more gentle, acceptable label than research, but I cannot say that its impact was any less intrusive.

The interview process, like all stages of this project, was recursive. Conducting interviews with youth whom I knew required revealing another facet of my identity with which I did not feel comfortable. Even sharing my identity as a researcher with the entire program group and making a general invitation to interviews proved a formidable task. Professor Ross provided encouragement, noting that it would be worse to hide this part of my identity than to reveal it. Withholding my intentions would prioritize my comfort over my honesty.

Based on the objectives of my research, Professor Park encouraged me to focus my energy on interviewing youth rather than adult youth workers, with the rationale that if my aim was truly to prioritize youths' voices and experiences, it made sense to speak with

youth themselves, rather than repeat the societal and academic trend of adults speaking on

behalf of youth.[6]

No moment seemed like the "right" moment to conduct an interview. There were

always better or more worthwhile things for youth to be doing. I distributed approximately

ten parental consent forms, but did not receive them back, after which I decided to limit

my interviews to youth over age 18 who could consent for themselves. The first two

interviews I completed were during a rainy day in August during the program. Because of

the weather, a larger group than usual was stuck inside; this seemed like a moment when

my interviews would be less of an interference. Looking back at the protocol and the two

interviews I conducted that day with Jonathan and Sandra, I realized that my questions

were significantly biased by my own positionality and beliefs. I was asking what I thought

I wanted to know and what I wanted to hear. I adjusted the protocol with Professor Park's

help. During the process of data analysis, I realized that even with my revised protocol, my

questions and approach to the interviews were not always congruent with youths' theories

of their environments. In some cases, my questions were operating on an entirely different

framework, based on dichotomies between outdoors and indoors, and liking and hating

nature. Their responses and theories challenged those dichotomies, whether or not I

recognized that in the moment. Generally, this process has been an exercise in listening,

both to what others are saying and to what I am saying.

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[6] Here I also use the word "youth" in differentiation to "adults" based on systemic power distribution. Although all the people with whom I spoke are legally classified as adults, I describe them as youth in this case in reflection of the power their ideas and discourses wield in policy- and decision-making, in comparison to those of dominant groups.

The outdoor youth program coordinator helped me schedule follow-up interviews after the summer program ended. I met with James and again with Jonathan and Sandra. James, Jonathan, and I met together and spoke as a group of three people, in which they engaged with and responded to what each other were saying, too. With Professor Park's support, I also contacted and met with an alumna and a student from a city high school, Isabel and Luis. Most interviews lasted between 30 and 45 minutes, although some lasted up to an hour.

**Data Analysis**

As with many aspects of this research project, the act of analyzing the data occurred simultaneously with learning how to do it (and making mistakes in the process). Some form of analysis and interpretation occurred during the interviews themselves and in their aftermath. Reflection and attempting to understand the dialogue was not limited to the stage of formal analysis (described below), but occurred during the interviews and in the interim between the interviews and the written analysis.

I transcribed each interview from the recordings. Transcription, like analysis, proved to be a process of interpretation and translation, in this case from spoken to written word. It required that I think about what I had excluded from the transcriptions and what was not translatable to writing (or what I had not attempted to translate to writing, for example, tones of voice, pauses, and visual cues). Like the entire research process, transcription was an iterative one, especially because I was learning as I was doing it. In my preliminary transcriptions, I often skipped over what I had said, deeming it unimportant (and uncomfortable—I didn't like listening to myself; and I thought I already

knew what I had said). However, this attempt to detach myself from the data proved to be a significant omission, as my presence and how I framed questions and what I said certainly influenced the course of the interviews and the content of youths' responses. Sometimes I noticed points I didn't adequately understand in the moment and later wished I had followed up on.

In comparison to other steps of data collection and analysis or writing, transcription seemed a less daunting task. It was just me in my headphones and the recording. At that point, what was done was done; I could not return to the interview and change how I had done it, but I did have the privilege of revisiting the conversations and rearticulating them in written form.

Professor Park introduced me to discourse analysis, a mode of interpreting spoken language based on what and how people communicate, not only on the literal content of what is said. This form of analysis would reflect the intention of this project to prioritize youths' voices. Although my interpretation of the data is inseparable from my subjectivity, I simultaneously attempted to base the analysis on interviewees' use of language. Rather than being constructed by either the interviewee or me alone, the meaning is co-constructed. I coded the conversations according to three categories:

o   Identity claims: "I" statements or statements that can be framed as "I" statements that express claims about oneself. In my analysis, these arose both from dialogue about oneself, as well as dialogue about others, in the process of juxtaposing one's own identity with that of others. For example, when referring to first-time program participants an experienced participant stated, "I don't think they were prepared for,

like, what is to come." At the same time that he describes newcomers' lack of preparation and comfort in the outdoor setting, he affirmed his own level of preparation and adaptability.

- o Subjective claims: Statements that express feelings or internal experiences. Carspecken (1996) contrasts subjectivity (accessible only to an individual) with objectivity (accessible to multiple people). While objectivity claims address "the world," subjective claims refer to "my world" (Carspecken, 1996). According to Carspecken (1996), even more so than other categories of claims, subjective claims may not be explicitly stated; more often than not, they "must be inferred." However, several of the subjective claims I identified did derive from explicit disclosure of internal processes; for example, from the statement "inside it's boring," I identified the subjective experience of boredom. My identification of less overt subjective claims was limited due to their implicitness and to the lack of supporting observational data or background knowledge. Due to the focus of my research questions, the majority of the subjective claims I did identify were linked to places.

- o Normative-evaluative claims: "Should" statements (or statements that can be framed as "should" statements) that express world-views, values, and beliefs. Carspecken (1996) notes that behind a normative-evaluative claim is often another and another. Inherently recognizing that people and their behaviors influence others, they refer to "our" world (Carspecken, 1996). For example, in reference to discussions about environmental and food justice, an interviewee expressed that, "it

really is important to have those type of conversations." I interpreted this statement as the normative evaluative claim, "People should have conversations about environmental and food justice."

Although I coded each of these categories separately, it became clear that these claims did not exist in isolation from each other. Furthermore, a claim in one category may imply a claim in another category. For example, I interpreted the statement "I would take [people] to the places I know that would help them" as expressing an identity claim: "I am a helper," as well as a normative-evaluative claim: "People should share information about helpful places." The link between normative-evaluative claims and identity claims became especially strong during the process of data analysis, and sometimes the boundaries among the categories of claims became blurry. At first discourse analysis seemed a daunting process, with plenty of room for inevitable errors, but with practice it became easier—as I accepted that this would not be a "perfect" process: any form of analysis would be biased by my interpretations, as this whole research process is shaped by my subjectivity and involvement. However, I still desired accuracy in my interpretation of interviewees' claims, and I question my individual capacity to accurately represent interviewees' claims. During the process, misgivings arose as to how interviewees would react to my analysis of their words, especially if I were misinterpreting (or over-interpreting) them.

I tagged each phrase I interpreted as making an identity, subjective, or normative-evaluative claim with the type of claim and its content using the comments feature in Microsoft Word. I then copied and pasted and grouped the claims according to identity, subjective, and normative-evaluative claims. Within these categories, I looked for

emerging topics, such as normative-evaluative claims about places and subjective claims reflecting joy, and grouped claims accordingly.

This discourse analysis became the foundation for other forms of analysis as I looked for emerging themes in the claims and interviews and looked for answers to my research questions. My questions, in turn, evolved to better reflect what the youth said and the answers that the transcripts offered, more in alignment with or at least open to their theories of the world rather than my own assumptions. After grouping quotes from transcripts according to theme and research question, I began the writing process, which revealed to me even more nuances, wisdom, and richness in youths' words than I had noticed before. This too was part of the listening process. I chose to write youths' statements in past tense in order to reflect that it was in a specific moment that they made these claims. Writing in the present seemed to falsely identify the data as permanent, current, and complete, misrepresenting the complexity and fluid nature of youths' conceptualizations of their environments.

Not only was the process of discourse analysis iterative, the entire process of thinking and rethinking this project was, too. Everywhere I looked and everything I did suddenly seemed to have a connection to this project. Although the names of these authors, people, and experiences are not mentioned in this paper, their influence and inspiration is constant throughout.

**Findings**

**I. "Reading the world"**

The youth with whom I spoke described what they "read [in] the world" (Freire, 1983, p. 11). This included their descriptions of Worcester (indoor and outdoor spaces), their favorite places in the city, and their experiential knowledge of these places. As they spoke about their city, it became clear that these youth had complex—and generally asset-oriented—understandings of their communities. They were hopeful for and proud of the spaces they inhabit and call home. Critiques of the city were complemented by proposed remedies and descriptions of its positive characteristics. Their focus on assets, however, coincided with acute observations and experiences of the city's injustices. Exercising critical literacy, the youth read inequities and differences in their surroundings and theorized the reasons behind them. Within their readings of the city lay nature and the outdoors, to which they also applied critical literacy as they noticed varying distributions of green spaces in the city. Because the meaning of nature and the outdoors is complemented by the meaning of other spaces and situated in a broader definition of "environment," I begin with an overview of youths' general conceptualizations of their environment, of the city as a whole.

**Asset Orientation**

Several youth commented on Worcester's role in their in their personal development. Both Jonathan and Isabel claimed the city as "home," and Jonathan described the city having "a special place in [his] heart." For Isabel, Worcester being "home" means that she is knowledgeable about the city, rich knowledge based upon her experiences of being born and growing up in the city. Although he lived his childhood in two countries in West Africa, James identified Worcester as the place he is most familiar

with and as a place he is profoundly connected to: "I think most of my growing process, most of my building up my intelligence and knowledge and actually becoming someone I'm proud of, has happened in Worcester…I think I'm more familiar with it compared to places I was during my childhood…I feel like compared to any other place in the world I can survive here. The most." Luis also expressed affinity towards Worcester, specifically his neighborhood, based on his familiarity with the environment: "for like insiders of [my neighborhood], you feel comfortable because you basically grew up around them and like you know most of the people around here, so that's probably why I feel comfortable…So it kinds of feels sort of like a family to me." The social connections he has made are key to his sense of belonging in the community.

Unlike the youth interviewed by Haluza-Delay, who contrasted their hometown with the wilderness space they had visited, did not see their home communities as in need of protection, and saw nature as superior to their home communities, (2001, p. 45-46), the youth I spoke with articulated the need to protect both natural spaces and human spaces, and did not rank one over the other. Asked whether she would prioritize fixing the streets and sidewalks or planting more trees, Isabel described the decision as "the biggest process ever." Sandra sided for the streets: "these *streets,* man…you might like mess around and like step into a pothole and twist your ankle." She proposed "switching off" annually, investing one year in streets and the next in trees. Luis supported investing more money in trees, but added, "I wouldn't take everything away from the streets because we actually need to fix the streets." In accordance with an environmental justice paradigm, youth

described *both* parks *and* streets and sidewalks as spaces deserving of social and monetary investment.

Youth identified a variety of favorite places, demonstrating their experiential knowledge of the city as well as the characteristics they value in a space. Among their favorite places and places where they would take someone visiting the city were a frozen yogurt store, Kelley Square and the Canal District, a dollar store, a shopping mall, Green Hill Park, and Union Station. Among the places and resources they identified as the most important in the city were City Hall, Foley Stadium, the public library, the bus system, and the colleges and universities. They also shared what these places mean to them. For Luis, Kelley Square and the Canal District represent the history of the city. For Sandra, they signify Worcester's upswing, "whenever I'm in the car and I see it I'm like yeah, this is cute, like Worcester's coming up in a way." She notices this in another neighborhood too: "I feel like it's slowly progressing, because I've noticed like around [street name], that's where you mostly see, like it's really cute, I mean it looks modern, everything's colorful." For Isabel, the dollar store "means something" in that it "helps out;" it supports families by selling necessities at low costs. Her description of the dollar store is nonetheless nuanced; she acknowledged that cheap food is "probably not good because of GMOs and what not"—but she also recognized, "there are certain people who have to live off GMOs in order to survive." In the present system of food production, she recognized, peoples' choices are constrained by socioeconomics.

In addition to concrete sites in the city, youth also identified abstract characteristics they appreciate about their city and their neighborhoods. Reflecting his experience with the

outdoor youth program, James remarked on "the strong presence of urban agriculture and the strong presence of advocacy for social justice and environmental justice." He also referred to "the sense of community" in the city. "I find a lot of people are away from that and they don't think that there's a strong sense of community, but um we always portray that with like get-togethers, parades, advocacy for different things, different groups of people come together." He also tempered his description of Worcester as "a fairly accepting city of immigrants and people who come from many different places" by noting its racial and socioeconomic segregation: "it's kind of like a melting pot but at the same time it's not because different groups stay with people they can relate to, with people who look like them."

In contrast to youth in a New York City neighborhood who identified positive aspects of their community as means to manage and navigate the danger and negative aspects of their communities—often as means to simply survive (Cahill, 2000, p. 16), the youth with whom I spoke identified several assets of their communities in isolation from or alongside negative or dangerous aspects of their communities. The negative did not necessarily overwhelm the positive, nor was it necessarily separate. Luis described a particular neighborhood as "basically the most dangerous place in Worcester," but despite this said, "I feel like I can still walk around…like you know, peaceful." Like the youth in New York City, the experiences of youth I spoke to challenged dominant dichotomies of "good" and "bad" (Cahill, 2000, p. 23).

**Critical Literacy**

As evidenced in James' description of Worcester's attitude toward immigrants and Isabel's description of the discount dollar store, despite their emphasis on the resources and assets of their city, the youth I spoke with are not isolated from nor unaware of its inequities. Like the youth in the New York City neighborhood, the youth with whom I interviewed demonstrated a "keen awareness of social inequities" (Cahill, 2000, p. 3). Isabel described discrimination in pay and treatment towards immigrants and non-citizens, and Jonathan and James described food injustices in the city. "I think that your race, your location, definitely affects your access to food, and healthy things in general," James explained. Jonathan also remarked on poverty and its impact on individuals. "With poverty comes like alcoholism and um drug abuse and um that emotional abuse and physical abuse." Such trauma, he added, may affect a youth's capacity to focus or engage in formal education and programming. Sandra described how different parts of the city look "cute" and others don't. Similarly, Luis observed a scarcity of green spaces in certain parts of the city including his own neighborhood.

In addition, the youth wrestled with questions of "why" the world is the way they perceive it. Questions of "why" are closely linked to accountability and responsibility. Whereas James challenged Worcester's image as a "melting pot," Sandra theorized that the segregation in the city that James described is not intentional; it just happens as people share housing openings through "word of mouth" with people they know—who often share their race or ethnicity. James, however, identified segregation as a "problem" and seemed to suspect some intentionality and injustice behind it. Sandra attributed the

difference in appearance of various neighborhoods to community agency and governmental intervention. Of her own neighborhood and house she said, "we own the building so um, I don't see my dad willing to like "oh yeah, we're going to like paint everything, we're going to redo everything." No one has the time or money for that. Unless, anywhere the government is like taking over itself, they'll fix it up in their own little special way." Her theory challenges a negative association of government intervention or takeover. Among the youth whom I interviewed, and among their theories and other theories I have heard or adopted myself, I encountered variation and at times disagreement.

In addition to identifying various causes for inequalities, the youth demonstrated both internalization and externalization of these causes. Jonathan ascribed vandalism and criminal activity to a lack of activities and spaces for youth, rather than to youth themselves: "that's why different things are happening, that's why property damages are happening, that's why criminal activity's happening, because there's nothing to do." While Jonathan blamed structural factors in this case, Luis internalized the scarcity of green spaces in his neighborhood to characteristics of the neighborhood, where, he said, people value nature less than in other parts of the city. Together, interviewees expressed some combination of internal and external, individual and communal responsibility for their communities being the way they. At times, these explanations are contradictory. Cahill (2000, p. 13), observed a tendency among youth to blame themselves rather than external systems or structures. She referred to the barriers in place that disguise structural influences on individuals' lives (2000, p. 26-27). Such barriers are likely at work in

Worcester, too. Tension results when they conflict with youths' knowledge of themselves and their communities as well with critical discourses to which youth have access and which they create.

**II. Conceptualizations of Nature and the Outdoors**

An understanding of youths' "readings of the world" is necessary in order to situate youths' understandings of nature and the outdoors. In addition to including many spaces in their descriptions of their environments, the youth with whom I spoke demonstrated multi-faceted conceptualizations of nature. Despite areas of convergence, the individual nature of each youth's knowledge and understanding of nature and the outdoors emerged, echoing Cahill's (2000, p. 18) finding of a lack of consensus among youth research participants. The diversity and richness of conceptualizations of nature and the outdoors among just five teenagers bolsters the environmental justice paradigm's conviction of the socially constructed nature of the environment as well as Russell's argument that "'nature' is a highly utilized and highly contested term that is understood in culturally and historically specific ways" (1999, p. 124).

According to Freire, "reading the world" is a process of self-discovery: "In perceiving ["things, objects, signs"], I experienced myself" (1983, p. 6). In accordance with Freire's claim, youth demonstrated that their understandings of and relationships to nature and the outdoors were connected to their senses of themselves. Here, I will outline youths' conceptualizations of nature as well as the relationships they described between these conceptualizations and their identities.

**Multi-dimensional conceptualizations**

Youth described nature according to many facets including its physical characteristics, its function, and their subjective experiences. In terms of its physical characteristics, Sandra described nature as "whatever's outside, basically, whatever's growing outside." Both she and Isabel included trees in their descriptions of nature, and Jonathan included urban farms, trails, and parks. According to these definitions, and explicitly confirmed by three interviewees, nature exists in Worcester. Sandra offered a particularly vivid example of nature in her neighborhood:

> Since the leaves started changing, the foliage is just like..amazing…the top of [street name], walking down right there, since there's like a canopy of, of trees, if you just like, let's say around 12 when the sun's really hitting up there, it's just like...it's amazing.

Unlike the teenagers interviewed in Haluza-Delay's (2001, p. 45-46) study, who tended to describe their home community as void of nature after a wilderness trip, the youth I interviewed detected nature and an outdoors in their urban community. "Even though you're in the city, like there's still an outside you can venture to," explained Sandra. Luis observed an absence of nature in his own neighborhood but notices it in other parts of the city: "I feel like I would have to go to like Green Hill Park or, like, I don't know, go out of [my neighborhood] in order to find those like outdoors and nature spots."

Further challenging western dichotomies between wilderness and civilization and natural and urban spaces, Isabel suggested that nature is everywhere, and to some extent, is impossible to eradicate. It depends on the location: "Honestly, I don't think that anyone can move the ocean or something, so it has to stay there, right, this side, it probably doesn't have the ocean, and it may not have the same things as this one, but in this one you can

probably find something that's beneficial, and in this one too." Similarly, Sandra spoke to the environment's endurance: "we just happen to be in the buildings that were built on top of [the environment]."

Subjective experiences add another layer of complexity to already complex conceptualizations of nature as a physical entity. Like the youth participants in Travlou's (2007, p. 74) and Haluza-Delay's (2001, p. 46) research, interviewees did not limit their descriptions of their environments to their physical characteristics, but also described their environments according to several dimensions, including social and emotional experiences. Sometimes these experiences are contradictory, both within and among individuals. Among the words youth used to describe their experiences of the outdoors and nature were "amazing," "beauty," "tranquility," "majesty," "relax," "toned down," "eased," and "freedom." For Luis, being outside recalled past subjective experiences: it "brings back memories, to being excited about winning that prize of the month of going camping or like, I don't know, going out to the park." He also explained that he can "concentrate even more around nature than like around people." Youth also expressed indifference toward being outside: "I was definitely not, like, so eager or enthusiastic," about working outside, explained Jonathan. James described a similar reaction, "I personally wasn't like very mad about it, I didn't hate it, but at the same time I wasn't like yeah, let's go plant some stuff." Senses of safety, comfort, and fear also are factors in peoples' conceptualizations of the outdoors: Sandra described the outdoors as a scene of violence, and therefore, less safe than indoors. During an overnight trip to a campsite, another program participant described the location as "scary," particularly at night.

Like youth interviewed by Travlou (2007, p. 72) Isabel described the indoors as stifling, "boring," a place where she feels "trapped," in contrast with the outdoors, where she explains, "I can socialize, I can live." For her it is a space to "go do something, be active, productive." "When you're at home, it's like, okay, you're there by yourself, you're just cleaning, and what else? Nothing else, no one else, you know what I'm saying?" Isabel's description of the outdoors of a social space reflects the experiences of other interviewees, too. In both James' and Jonathan's cases, the social nature of the outdoor youth program contributed to their enjoyment of outdoor work. Jonathan explains, "after getting to know everyone I think it's more of a fun thing to do, because you're just like talking, having a conversation, while doing the work." James adds, "I knew a lot of people in the program, so it was kind of, like I was working along with my friends." The youth who interviewed with Travlou et al. also expressed the importance of places for social interaction with friends (2008, p. 9).

Yet the outdoors in Worcester does not necessarily offer Isabel the same freedom and connection to people and place that the outdoors in the DR does. She and other youth spoke to the differences in the outdoors among the different places they have lived or visited. The Dominican Republic's climate, she explained, contributes to the lure of the outdoors as a social space: "there will be many people outside, willing to, you know, engage with you." She also commented on different notions of space and ownership, "in Worcester, I feel like the houses are more like, "this is your property, this is your space, this is your space, this is your space," and in DR, it's like, this may be your space, but many people can invade your space in a sense, in a way that's acceptable." Delineation of

property determines who can go where. Luis contrasted the Dominican capital city with Worcester in terms of his subjective experiences: "from where I came from, it's not like, you don't walk around the streets with peace, and like feeling that free air and like everything, I just feel like Worcester's a beautiful city and like really peaceful city." Youths' experiences of multiple places add more layers of complexity to their conceptualizations of outdoor spaces.

Youth also described nature in terms of its interaction with people and other forms of life. Sandra, Luis, and Isabel associated nature with survival. Sandra posed the questions, "It drives life, doesn't it? I mean without nature, would we be breathing?" Isabel described a symbiotic relationship between "nature" and "city:" "you need both of them…they both benefit from each other." She emphasized cities' dependence on nature: "what [nature] is doing, is going to be incorporated into the city. It's going to go to the city and that's how people sell things and make more money…through nature you can actually make a city." In addition to its value to human beings, Luis described nature as endangered, "people don't realize that without it, we are nothing, it's that realization, you know, we need it, and, like, we have to appreciate it before we lose it." Isabel and Jonathan referred to the benefits, including subjective experiences, people can procure from nature: "you can, have fun, you can, you know, you can swim, you can do this, you can…find a place where you can set a table and have a picnic." "You can just be with nature, and you can just kind of like sit and relax. And if you just want to observe and if you want to like learn more things, I definitely think there's so much nature in Worcester that you can just

find anywhere" explained Jonathan. He also referred to "everything that we can get from it and how I think better ourselves with it."

**Identity formation**

Several researchers (including Travlou, et al., 2008, p. 13; Travlou, 2007, p. 71; and Cahill, 2000, p. 2) relate environmental experiences to youth development and identity formation, particularly among adolescents. One piece of identity formation is relationships with environments: not only did the youth I spoke to conceptualize the environment and the outdoors as a separate entity, they also described their relationships with the spaces they inhabit. They expressed a variety of identity claims describing their personal relationships with outdoors and nature, supporting the claim that identity formation occurs in interaction with environments. Again challenging adult and dominant narratives, their claims challenge the idea that a person either loves or hates nature, and that one's relationship to nature is static. Youth also introduced nuances regarding their own and others' relationships with the outdoors that are largely absent in mainstream discourses.

Among the program participants, who work outdoors during the hottest months of the year, there was no consensus in regards to the statement, "I'm outdoorsy." During a group discussion in which everyone offered a positive adjective to describe themselves, one youth said he was outdoorsy. Another youth reacted along the lines of, "You'd better be outdoorsy if you're doing this job," suggesting that they, too, identified as outdoorsy and assumed the entire group to as well. Yet, on another occasion, another youth explained, "I don't really consider myself an outdoors person; I don't even know why I do this job." She and a peer discussed their shared distaste toward spiders and rodents. But

moments later, she protested another two peers' attempt to kill a cricket. Coincidentally (or

not) the question of insects arose a lot during the course of the program. Additional

nuances in terms of identity surfaced: a program participant who described herself as

"definitely not outdoorsy" picked up a worm without hesitation. For another youth,

loyalties to friends competed with the program's professed loyalty to insects; in response

to his peers' expression of fear towards the bugs in the grass, he tried to eliminate the

insects by striking them with a sledgehammer.

Jonathan pointed out the ambiguity of the word "outdoorsy" while also challenging

the divide between "indoorsy" and "outdoorsy" people. He questions what constitutes

"outdoorsiness:" "I love, love to go like hiking and um, I don't know if going to the beach

is like outdoorsy, but I love going to the beach." Despite his enjoyment of certain outdoor

spaces and activities, he explained, "I've always of been like an indoors kind of person,

with just like nice cool weather, just sitting down, doing some work." He demonstrates the

arbitrary nature of the word "outdoorsy," rendering it a less than useful term. Similarly,

Luis identifies as both "ourtdoorsy" and "indoorsy," rather than either-or, explaining, "I

usually stay inside and watch TV. But I wouldn't mind to go outside. I, I it's just, it

depends on like how I feel about, I don't know, I can still walk out, and feel comfortable,

like both." Isabel describes herself as "in between" outdoorsy and indoorsy, and Sandra

distinguished between enjoying some outdoor activities and identifying as "outdoorsy;" "I

wouldn't say, like I am outdoorsy, but I am doing outdoorsy things, like I don't mind

outdoorsy activities, like being outside is fun, like something like that. I wouldn't like

um…what is that word. There's this word. Like I wouldn't um like identify myself as

someone who's outdoorsy but I'm willing to try new things." For all four individuals, language has its limits in terms of accurately describing their nuanced experiences and identities.

Youth also introduced additional factors besides personal preference and enjoyment that influence their relationship to the outdoors. Sandra acknowledged her obligation to accompany her little brother to the park, which affects how much time she spends outside: "I like to go to a park a lot; well, I have no choice cuz my little brother goes, like I love to take him to the park, it's not bad." She also remarked on the unavoidability of spending time outside: "if I'm gonna go somewhere, like I'm gonna go outside to get to where I'm going." For Isabel, her commitments influence how much time she spends outside: "I know that there are things I have to do, there are things that I have to finish, so it's not always enjoying or about enjoying, it's about like getting your stuff done, responsibility." She added, "There are days where I'm, like, I just need my space, I need time for myself," moments in which the indoors would serve her needs better.

Sandra distinguished between the actual experience of the outdoors and the idea of it: "Do I like the outdoors, like the idea of it? It's so beautiful, but like you'll never catch me outside 24/7. Cuz, bugs are scary." She also described the experience of "nature from a distance:" "As a child, like probably watching TV, like, like you can see all that stuff, um on TV, but as soon as you get out there, there's like, it's different, I'm not comfortable, I don't like it, but it looks cute." She introduces another nuance to peoples' relationships to the outdoors: the capacity to appreciate it as an abstract entity. As she points out, the actual experience can be different than the idea.

Both Sandra and Isabel alluded to different levels of "love" towards nature. It is possible, Sandra pointed out, to appreciate nature on a superficial level: "I mean if you love nature, you love nature…like if anyone says it they have a reason for saying it. Like not like, 'oh yeah, I grow plants in my living room and I love nature.'" For her, "loving nature" means something beyond having indoor plants. Isabel distinguishes between "loving nature" and "showing that you love nature:" "I love nature, I can say it, but one thing is doing. How do you show that you love nature? I don't always show it." She differentiated between "loving nature" by enjoying it, such as hiking, and "loving nature" through protecting it, such as by recycling. Despite the varying forms and levels possible of love towards nature, Sandra describes something like an obligation to loving it, because of its role it plays in sustaining human life: "you have to. Like you have no choice. Like even if you don't see it, you do regardless of if you don't like it or not."

**III. Fluidity of conceptualizations**

Adding to the complexities of youths' conceptualizations of and relationships to the outdoors is that they are far from static. In contrast to Haluza-Delay's conclusion regarding the youth he interviewed that "it is likely that the teens' view of nature is sturdy" after their wilderness trip (2001, p. 47), the youth I spoke to expressed fluidity in their perceptions of nature and the outdoors—as well as in how they viewed themselves in relation to the outdoors. Freire describes readings of readings of the world, suggesting the potential for change in one's conceptualization of their world (1983, p. 11). In accordance with this idea, the youth identified a range of influences on their conceptualizations of nature, including relationships with other people, past experiences and education, and themselves.

Some of these constituted "turning points" in their relationships to and conceptualizations of nature, as I referred to them early in the analysis process. Their theories not only of nature itself and their relationship to it, but also of how those concepts have been formed, emphasize the fluid nature of their definitions of and relationships with nature. According to interviewees, affinity towards nature is learned, and developing an appreciation of the outdoors requires some investment of time, knowledge, and resources that are not equally accessible to all. Some youth also describe moments or experiences in which they became more aware of social and environmental inequalities in their communities. It seems that understandings of the "whys" behind injustices are not a given; power dynamics tend to remain invisible without an intentional intervention.

Despite the significance of these influences, they do not represent complete transformations of youths' understandings of their environments and communities, but rather an added layer of complexity on an already deep and fluid understanding of the world. Reconciling new and old ideas and theories about themselves and their communities, pre- and post- influential factor, is no easy process. Furthermore, there is no one form of influential factor or "turning point." Some youth pinpoint a specific moment or experience that has contributed to their present relationship with nature and their communities; others identify a series of experiences that have shaped these relationships over the course of their lives. Youths' explanations of their own relationships to the environment complement their theories of how other people think of the outdoors. Often they situate their own stories within broader explanations of humanity's or their community's stories and conceptualizations of nature.

**Influential factors and "turning points"**

Youth described awareness and education as key influences on their conceptualizations and relationships with the outdoors. Luis explained, "I was educated that way…that made me value [nature] more." James and Isabel explicitly linked the identity claims "I am aware" and "I am educated/getting educated" as causes to their claims "I am outdoorsy" and "I love nature." Yet these processes of awareness occurred in different spaces. For Isabel, an environmental science class marked a "turning point" in which her indifference towards transferred to an understanding of peoples' dependence on nature as "what keeps [human activities] going." For James, his self-identification of an "outdoorsy person" stemmed from the awareness and resulting appreciation of his surroundings that he gained during his involvement with the program; you can't enjoy what you don't know about, he pointed out: "I think I'm definitely an outdoorsy person. Um, it wasn't to this extent earlier, before I started [the program], but I think you definitely get to appreciate your environment more and appreciate the things and the spaces that are around you, um when you're aware of it." Just as influences on understandings of the environment themselves come in many forms, there is no single setting or place for them. However, it appears that an essential characteristic of such education is that it is relevant to youths' lives. For Isabel, a key aspect of her class was learning about "how nature can impact the lives of humans," not about nature as an abstract entity.

Several youth also commented on the role of individual disposition toward learning and gaining knowledge. Sandra observed, "if someone's passionate about that, then they'll know it on their own." In reference to food and environmental justice, James explained, "I

think it took my personal dedication and my want to be educated, to learn about my environment, things that are happening, and how race and location and access to food is so closely related." Isabel also emphasized choice as a key component in people's lives, including the choice to become educated. For youth without such motivation, or without such available choices, she suggested, such awareness is harder to come by. There is some comfort in the status quo, as Sandra pointed out: "It's like whatever you don't know won't hurt you." Unearthing problems—and focusing on only problems—is a difficult and potentially painful process.

In addition to formal education and programming, youth identified general exposure—often including the people with who they have grown up—as an influence in their feelings toward nature. Sandra explained, "it's all based on what you're exposed to, like I could grow up in the city my whole life. Let's say I go off to college. And it's in a rural area, and that group of people are there, they're exposed to it, I could become a nature lover…off of that." Similarly, Luis reflected on his own past, "I kind of grew up with that love for nature and like in my opinion I feel like people grow up with that and finding it important or not." He attributed his love toward nature to his parents, who grew up in the countryside: "they wanted to like implement that love and that value of nature, like to their children." Isabel, too, attributed her attitude toward nature not only to the class itself, but also to the teacher: "she does these things and she tries to live for what she loves…I would say she's my biggest like example." Their theories reflect Ward Thompson's emphasis on "childhood engagement with nature" as a key influence on peoples' attitudes toward it (2007, p. 26). It appears that often, relationships are behind that engagement.

Sandra suggested that a sense of belonging and safety is also key to a person's engagement with nature. Stereotypes, Sandra explained, if taken seriously, can draw people away from spending time outside: they can "[limit] your mind about certain things. Like you just like, oh, as soon as you hear that, just like all right, that has nothing to do with me." Physical safety matters too. Someone fearing physical violence, she explained, is "gonna feel the need to stay inside more often." She also pointed out the difficulty in finding activities as a teenager compared to a child. "As a kid, it was never an issue to go outside…It was like, nothing, kids are constantly outside…For someone getting older and wanting to do more things in the area…there's like no access." James and Jonathan also commented on the scarcity of healthy spaces and activities for youth: "there's not many things for youth to do in the city who are under 21," Jonathan stated. A lack of spaces for youth in which they feel safe and in which they feel they belong limits their engagement with outside spaces.

In the process of contextualizing their individual stories of their engagement with the outdoors with theories of other people, the youth I spoke to acknowledged that there is unequal access to the influential factors they describe. Luis explains, "Many kids around where I lived didn't really value [nature]. Cuz they were just in that little bubble of the city." His own parents' experiences living in rural communities and their affinity toward nature served as the impetus toward his exposure to nature. Children and youth who did not have such access or impetus remained in the "bubble." For James and many other program participants, money is a key motive for joining the program. Yet the program is competitive; the demand for youth jobs is not met by the available jobs. James pointed out

that knowledge and access to nature is a privilege: "as a 15, 14, 13 year old living in the city, going to school, um usually you're having a harder life than most kids who live in like the suburbs, you don't really care about that, you're not gonna say, 'oh, today let me plant something…' You don't think about that type of stuff." Systemic geographical and socioeconomic constraints both limit youths' access to engaging with the outdoors and disguise power structures, diverting youths' focus to survival. Sandra put it like this: youth "are probably just worried about, like, what they're doing or they're just getting their job."

In some ways, an emphasis on the role of exposure and choices on an individual level contradicts the identification of social factors including race, socioeconomic class, geography, and culture that affect people's—including youths' own—engagement with and access to nature. This tension was exemplified during the conversation I had with James and Jonathan. Jonathan commented, "you don't need anything to love nature," suggesting it was a question of exposure as a child. James agreed to some extent, but added,

> I think more things affect it than just simply your childhood though. Um, I think that if you're a, if you live in like a 3 decker, if you're living in a city where you're constantly working, you constantly have things on your mind, paying bills, you don't really have the time to do that, you don't really have the time to say, "oh, let's go check this park out, let's go see this garden." Um, it's constant stress, and I think people, people will um do what they have to do rather than what they want to do or other things that are around. So if you live in a more wealthy neighborhood or you have a lot of resources and you don't have much stress on you and a lot of things to worry about, you have more time to say, oh, I can go check this park out, I can water some gardens, I can do more things. So I think yeah, definitely, the lifestyle you live and uh your environment, your income, all those things affect your interest in nature and um environmental aspects of the world in general.

On another level, perhaps these two theories are not so incongruent; as Jonathan pointed out, exposure to the outdoors matters in shaping one's conceptualization of it, and as James

demonstrated, exposure to outdoor spaces, in turn, is dependent on socioeconomics, what neighborhood you live in, the level of stress in your household. Alongside her emphasis on the role of choice and individual factors in determining one's environmental awareness, Isabel also identified socioeconomics and culture as influential factors upon peoples' relationships with the outdoors. The need for money—essentially the need to survive, she explained, can overshadow all other concerns: "they think of their needs, right...you see teenagers, they need jobs, okay…It's very rare for a high school student to be like…okay, instead of getting a job, I'm going to go out to the fields to plant." The question of what matters more, the individual or society, in determining peoples' pathways is not only a tension visible here, but is also debated in spheres everywhere.

## **Implications**

An understanding of youths' conceptualizations of their communities and how they "read the world" can contribute to relevant and sensitive youth work practice. In this case, discourse analysis provided a useful tool for listening not only to what youth said, but also to the meaning of what they said. Practice and programmatic discourse, in turn, can be constructed with these understandings in mind. In the case of this collective group of youth, for example, an asset-orientation embedded in youth work practice and discourse communicates an appreciation for the youths' conceptualizations of their environments. A deficit approach risks neglecting youth-recognized assets and seeking complete transformation risks eliminating existing value and uniqueness that youth articulate. Luis explained, "when I hear people talking bad about [Worcester, it] upsets me." With another

group of youth and in another place, an asset orientation may no longer hold true, but commitment to understanding youths' worldviews and action to respect those worldviews holds relevance in whatever context.

An understanding of what favorite spaces—whether they are indoors, outdoors, home, school, or another space—represent to youth can also contribute to the relevance of youth work spaces and practice. Among the youth with whom I spoke, a variety of characteristics made particular spaces valuable: from their contributions to the community, to accessibility, to a sense of expertise and belonging. If the outdoors and green spaces are to be relevant and engaging to youth, this analysis suggests that they must contain elements of spaces that are important to youth. For example, if a sense of social belonging makes make a space like the mall attractive, youth workers can consider how a green space can foster a sense of social inclusion, too.

This research also suggests the usefulness of supporting youth as they reconcile tensions and work through questions of why their communities and worlds are the way they are. Power analysis,[7] for example, helps youth and adults wrestle with such questions, assess power distribution, and, in the process, build critical literacy. Patrick Shannon describes the question of "why" as "both a weapon" against the status quo "and a tool" towards social justice (Stumpf Jongsma, 1991, p. 518). The process of power analysis has the potential to both respect and challenge youths' understandings of their worlds, encouraging them to support their readings with evidence and further analysis. Questions

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[7] This concept of "power analysis" was introduced to me by the Worcester Youth Workers Alliance

of "why" apply both to access to and distribution of green spaces as well as larger issues of injustice to which this particular issue of environmental injustice is linked.

These five youths' configurations of nature support Haluza-Delay's claim that people use experiences, including their subjective experiences, to conceptualize nature (2001, p. 47). His argument that programs need to "understand how people think" in order to be relevant (2001, p. 48) holds true here, too. The youth with whom I spoke challenged dominant conceptualizations of nature, as well as dominant views of environmental stewardship. Youth programs with environmental stewardship as a goal have the opportunity to embrace diverse stances toward nature as well as different views of environmental stewardship. There are multiple ways to "love" nature, as the youth demonstrated, and not all of them entail preferring to spend time outside, or even being outside. Youth workers and educators can consider how to offer space for all forms of "loving nature." It is also worth noting the role of nature and outdoor spaces in identity formation. Through discourse analysis or similar tools, youth workers can better understand how youths' attitudes toward nature to shape descriptions of oneself, and vice versa. Vocabulary such as "outdoorsy" or not, or either loving nature or not, may not be sufficient to describe the nuances of youths' relationships with the outdoors.

Contextualizing our own stories within broader theories—while in the process of constructing both—and while reconciling sometimes contradictory forces and making sense of something with no easy explanation, is no easy task. Youths' theories need not be critiqued for shortcomings or blind spots, or compared next to theories dominantly recognized as authoritative. Rather youth workers and educators can validate youths' ideas

as representing the unalienable truths of their lived experiences and observations. Simultaneously, they can recognize that youth, like those of people of all ages, are in the process of constructing and adapting their theories about the world. Recognizing that these can be painful processes, sometimes forcing youth to reconcile competing forces, often close to their own identities, support and solidarity is necessary in the process.

While being supported through processes of building their conceptualizations of their environments, youth workers can offer opportunities and spaces to explore new ideas. Sandra suggested that people are receptive to learning new things if they have the opportunity to access them. On community awareness and environmental injustice, she said, "I don't know if people don't know about it, but I'm pretty sure if you like, if you like give someone like a way to learn about it, they'd probably be into it." James also advocated for increased access to spaces that broaden youths' understandings of their communities, particularly in regards to environmental and food justice: "I think it would be amazing if more kids were aware about [environmental justice]. And more kids studied it or knew it." Sandra summarized the importance of exposure: "it's all based on what you're around…most of the time no one really like [goes] into detail or research unless it like came across in a certain way or you've seen it at school." Offering avenues for exposure to nature and learning while embracing the many interests youth and their families have is critical to increasing access to such spaces and opportunities. This can be done in a conscientious way in which youth are supported, their "old" perspectives as well as their "new" ones validated, and injustices addressed with a nuanced approach acknowledging assets as well as "problems" and defying an asset-deficit dichotomy.

By no means does this study offer a comprehensive understanding of Worcester youths' conceptualizations of nature and the outdoors. It is important not to overstate the import of these findings, especially the particular content of each youth's unique way of "reading the world." However, according to Eisner (1991), listening to one individual's voice offers insight not only into that individual's perspective, but also the communities to which that person belongs. He argues, "Every particular is also a sample of a larger class. In this sense, what has been learned about a particular can have relevance for the class to which it belongs. The theme embedded in the particular situation, extends beyond the situation itself" (Wals, 1994, p. 10).

Youths' voices and experiences need to be listened to in whatever context, and, in the words of Norma González, "become validated as sources of knowledge" (2005, p. 42). Adult-designed efforts to engage youth in nature and the outdoors risk making assumptions regarding youths' experiences and conceptualizations of nature. Particularly in light of the environmental crises facing humanity and the planet, the expression and validation of youths' experiences and ideas matters. Complex problems demand diversified approaches. Thus, recognizing and validating all forms of environmental stewardship and relationships with nature, rather than imposing a dominant and racially, geographically, and socioeconomically exclusive model of environmentalism, is critical. James' reaction to the proposition of how to be a "perfect" youth worker, that "there's no right answer to it," applies here, too; there is no one right answer, but many necessary answers to environmental crises.

**<u>Conclusion</u>**

It is easy for me to write these implications and not do anything about them, as though they were written entirely for others. But they are for me, too, and especially for me, because they reflect that to which I was most attuned during this process, that which I most needed to hear, and the largest gaps in my understandings. Interviewing youth provided me an opportunity to ask questions that I probably would have never asked in the same way—or to the same level of depth—in day-to-day programming. So, how will I adapt my practice to provide space for these kinds of conversations, this level of listening, this form of discourse analysis, and the sensitivity and understanding I hope to gain from it? How will I "translate" (Professor Park's word) these findings into other spaces and into my own practice?

Professor Park described youth work as requiring a "researcher stance:" listening, asking why, and being curious. For me, this research also meant asserting myself in ways that I was not used to, alongside courage and humility, recognizing that another's experiences are just as valid as my own, that my version of reality—of anything—doesn't hold true for everyone. This researcher stance, this form of assertiveness, this courage and humility all are efforts at connection, the pivot of youth work.

The youth with whom I spoke expressed the desire to connect with others and their surroundings. Such connections have been critical for me in my own interactions with the environment and were key throughout this process. I have depended on others in ways I did not anticipate or imagine; this truly has been a messy process of collaboration and giving and receiving. If connection is the form, perhaps the content can be anything. What

matters most is not necessarily what we are talking about or where we are, but that we are building connections with each other, ourselves, and our environments—including natural spaces; and perhaps, some outdoor spaces can lend themselves particularly well to this. This form could lead to spaces in which adults, youth, and "children learn to respect who they are and see themselves as allies with the environment rather than the oppressive conquerors" (Akbar, 1998, p. 249, quoted in Traore & Lukens, 2006, p. xxvii).

Professor Park also remarked on what it means to "carry youths' voices with me." My own conceptualizations of nature and the outdoors have changed over the course of this process. I occupy a different place in conversations about the environment and environmental education. Specially, I am determined to integrate environmental issues with social and environmental justice and to talk about inclusion and race, age, ethnicity, and other factors of identity when talking about the environment. Furthermore, I have been reminded that my ideas and I are always in the making, just as the youth revealed their own ideas and selves to be.

This project has simultaneously provided a look outward and a look inward, both of which were essential to effective dialogue. To integrate this into my practice, I hope to seek and create comparable spaces for reflection and learning in the future.

**Bibliography**

Ashwell, A.N. (2010). *Identity and belonging: Urban nature and adolescent development in the city of Cape Town.* (Unpublished doctoral thesis). University of Cape Town, Cape Town, South Africa.

Bigelow, B., & Swinehart, T. (2014). *A People's Curriculum for the Earth: Teaching Climate Change and the Environmental Crisis*. Milwaukee, WI: Rethinking Schools.

Cahill, C. (2000). Street Literacy: Urban Teenagers' Strategies for Negotiating their Neighbourhood. *Journal of Youth Studies 3*(3), 251-277.

Carspecken, P. F. (1996). *Critical ethnography in educational research.* New York, NY: Routledge.

Freire, P. (1983). The importance of the act of reading (L. Slover, Trans.). *Journal of Education 165*(1), 5-11.

González, N. (2005). Beyond culture: the hybridity of funds of knowledge. In N. González, L. Moll, & C. Amanti (Eds.), *Funds of knowledge: Theorizing practices in households, communities, and classrooms* (29-45). New York, NY: Routledge.

Haluza-Delay, R. (2001). Nothing here to care about: Participant constructions of nature following a 12-day wilderness program. *The Journal of Environmental Education 32*(4): 43-48.

Hennink, M., Hutter, I., & Bailey, A. (2011). *Qualitative Research Methods.* London: SAGE Publications Ltd.

Louv, R. (2008). *Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder.* New York: Algonquin Books of Chapel Hill.

Louv, R. (2011). *The Nature Principle: Human Restoration and the End of Nature-Deficit Disorder.* Algonquin Books.

Platt, L. (2012). "Parks Are Dangerous and the Sidewalk Is Closer": Children's Use of Neighborhood Space in Milwaukee, Wisconsin. *Children, Youth and Environments* 22(2): 194-213.

Ranjan Sinh, D. (2008). *Environmental History of Worcester.*

Rigolon, A. & Flohr, T. (2014). "Access to Parks for Youth as an Environmental Justice Issue: Access Inequalities and Possible Solutions." *Buildings 4*(2): 69-94. Retrieved Sept. 2015 from 10.3390/buildings4020069.

Russell, C.L. (1999). Problematizing nature experience in environmental education: The interrelationship of experience and story. *Journal of Experiential Education, 22*(3): 123-128, 137.

Strife, S. & Downey, L. (2009). "Childhood Development and Access to Nature: A New Direction for Environmental Inequality Research." *Organ Environ* 22(1): 99-122.

Stumpf Jongsma, K. (1991, March). Questions and Answers. *The Reading Teacher, 44*(7): 518-519.

Taylor, D. (2000, January). The rise of the environmental justice paradigm. *American Behavioral Scientist* 43(4): 508-580.

Traore, R. & Lukens, R.J. (2006). *This isn't the America I thought I'd find: African Students in the Urban U.S. high schools.* University Press of America: Lanham,

MA.

Travlou, P. (2007). Mapping youth spaces in the public realm. In C. Ward Thompson & P. Travlou (Eds.), *Open Space: People Space.* New York, NY: Taylor and Francis.

Travlou, P., Eubanks Owens, P., Ward Thompson, C. & Maxwell, L. (2008). Place mapping with teenagers: locating their territories and documenting their experience of the public realm. *Children's Geographies 6*(3): 309-326.

Ward Thompson. (2007). Playful nature: what makes the difference between some people going outside and others not? In C. Ward Thompson & P. Travlou (Eds.), *Open Space: People Space.* New York, NY: Taylor and Francis.

Wals, Arjen E.J. (1994). "Nobody Planted It, It Just Grew! Young Adolescents' Perceptions and Experiences of Nature in the Context of Urban Environmental Education." *Children's Environments* 11(3): 1-27. Retrieved Sept. 2015 from http://www.colorado.edu/journals/cye/.

Woodgate, R. & Skarlato, O. (2015). "'It is about being outside': Canadian youth's perspectives of good health and the environment." *Health & Place* 31(2015)*:* 100-110.

**Appendix**

**PROJECT INTERVIEWING GUIDES AND INSTRUMENTS**

**Interview Questions**

**Relationship to place**

- Imagine that a friend from far away were coming to visit you. What would you tell them about Worcester before they got here? What would you take them to see?

- What is your favorite place in Worcester? In your neighborhood?

- Now that you've shared with me your favorite place, what's the most important place in the city? How about the second and third most important places?

- Is there anything you don't like, that worries you, or makes you angry about where you live? Do you feel like you could change this or get this changed with the help of others if you wanted to?

**Outdoor access & experiences**

- Imagine it's a Saturday and you have no homework. Do you prefer to go outside or stay inside? Why? What do you do, who are you with, and how do you feel?

- "I'm an outdoorsy person." Do you agree with that statement? Why or why not? Do you think that a certain group of people (according to class, race, gender, country, etc.) are more "outdoorsy" than others?

- *For immigrant youth and youth who have lived in other places*: When you lived in [your home-country or other place], did you spend more or less time outside? What would you do, who would you be with, and how did you feel?

- In some parts of the city and in parts of the state there's a lot more parks, mountains, gardens, woods, lakes, and land where people can walk and spend time in than in other parts. Why do you think some places have more spaces like that? Some people say it's not fair that some places have more spaces like that than others. What do you think about that?

- Imagine that you're the mayor and you have $10,000 to spend on two projects: fixing the streets and planting trees. How much would you spend on each project and why?

**Relationship with "nature"**

- What do you think nature is? Does nature exist in your neighborhood? Around you? In your city? Is it important to you?

- "I love nature." Do you agree with that statement? Why? Do you think that a certain group of people (according to race, class, gender, country, etc.) would love nature more than others?

- Can you tell me what do you think makes a person either love or like or dislike nature? Is it their background, personality, or something else? Do you know a lot of people who love nature?

*For outdoor youth program participants:*

- Why did you join the program?

- When you first entered the program, how did you feel about working outside? What do you think the perspectives and attitudes toward the outdoors of youth first entering the program are?

- Imagine you are on the hiring committee. If a youth were not excited about being outside or didn't like being outside, would you still consider hiring them? Have you seen this in youth who have applied or participated in the program?

- Who would be an ideal candidate for the program? Who wouldn't be?

- What do you find most challenging about working with first-year youth?

- In the program, we talk about environmental justice and food justice. Do you think those have applications to your city? Do you think they are relevant to your own life? Do you think that other youth in the program see them as relevant to their lives?

# CLARK UNIVERSITY

**CHALLENGE CONVENTION.**
**CHANGE OUR WORLD.**

IRB Proposal No. 2014-090

## REPORT ON ACTION OF
## COMMITTEE ON RIGHTS OF HUMAN PARTICIPANTS IN
## RESEARCH AND TRAINING PROGRAMS

**Investigator:** Sarah Bertrand
**Advisor:** Laurie Ross
**Department:** IDCE
**Project Title:** Environmental justice and youth in Worcester, MA

This is to certify that the project identified above has been reviewed by the Committee appointed to review proposed research, training and related activities involving human subjects, which has considered specifically:

1. the adequacy of protection of the rights and welfare of the subjects involved;
2. the risks and potential benefits to the subject of importance of the knowledge to be gained; and
3. the adequacy and appropriateness of the methods used to secure informed consent.

Action date:6/12/2015

The collective judgment of the Committee is that:
(x)     the study is **APPROVED WITH STIPULATIONS** (Research **may** begin, but stipulated items as specified in the EXPLANATION section below are required to be sent to the IRB)

Signature _____
*Chair, Human Subjects Committee*

Date     6/19/15

## APPROVAL EXPIRATION DATE:    6 / 12 / 2016

*To renew this approval for an ongoing study to extend it beyond the expiration date, federal regulations require completion of a Continuing Review form indicating it is your project's "Annual Report". This form should be submitted to humansubjects@clarku.edu two weeks before the expiration date above for IRB review and approval. The Continuing Review form is available at http://www.clarku.edu/offices/research/compliance/humsubj/index.cfm .*
***Please note if the Continuing Review form is not submitted for renewal of your IRB approval, the approval will lapse and under federal regulations no further work under that protocol may occur after the expiration date.***

**EXPLANATION:**
1. State where the data and consent forms are being stored. They should be stored separately. Specify the office(s). 2. A permission letter is needed from YouthGROW for the interviews of adult youth workers, teachers, school administrators and youth. Note: Reminder that observation at YouthGROW is not subject to IRB approval and is exempt.

**INVESTIGATOR RESPONSIBILITIES for all APPROVED research projects:**
1. Investigators must keep consent forms on file for the **three years** following the date of IRB approval. Faculty advisors are also obliged to keep, for three years, consent forms received from research projects undertaken by students.
2. The investigator(s) must notify the IRB chair **immediately** of unanticipated problems that affect subject welfare.
3. Any changes to this protocol must be submitted to the IRB for review **prior to being implemented.**
4. Federal regulations require **continuing review** of all approved protocols. The Office of Sponsored Programs and Research (OSPR) will send the investigator(s) a Continuing Review form, which is due by or before the expiration date above. In order to ensure our continued compliance, we ask for your assistance by filling out this brief form and returning it to OSPR within **two**

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**weeks of receipt**. Indicate "Annual" if the study is ongoing or "Final" if the research has been completed. (Form is available at http://www.clarku.edu/offices/research/compliance/humsubj/index.cfm )

**INFORMED CONSENT FOR STUDY PARTICIPANT: Interview**

**Title of Research Study:** Environmental Justice and Youth in Worcester, MA

**People in Charge of Study:**

| Name | Phone | Email |
|------|-------|-------|
| Sarah Bertrand | 603-490-5041 | sbertrand@clarku.edu |

**Researcher Supervisor:**
Dr. Laurie Ross
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Clark University
950 Main Street
Worcester, MA 01610
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Email: jpark@clarku.edu

**About this Research Project:**

The researcher, Sarah Bertrand, working under the supervision of Professor Laurie Ross at Clark University, is researching youths' understanding and experiences of place and environmental justice, specifically access to green spaces and education about the environment and protection from toxicity, in the city of Worcester. Your opinions and experiences will further this research and help understand how youth education and programming might be used as a tool for achieving these forms of environmental justice.

You do not have to participate in this study. You can decide not to be interviewed. You will not be getting paid for participation. There will be no change in services or penalty you decide not to participate, to not answer one or more questions, or to leave the interview.

If you agree to participate, you will meet with the researcher once or twice for about 30 minutes and at your program site, place of work, or school to discuss what forms education about nature and the environment takes for youth in the city of Worcester and what effects it has.

With your permission, the discussion will be recorded. The recordings will be stored securely on the researchers' computers, and will only be shared with the research supervisors. These recordings will be later destroyed by March 31, 2017. The consent forms will be stored in the International Development, Community, and Environment (IDCE) Department in Dr. Laurie Ross' office.

There are no known direct risks or benefits to you for participating in this study. You may refuse to answer any question, stop the discussion, or ask to reschedule the meeting. These options are always available to you. The possible benefits of participating in this study include promoting research in the areas of environmental justice and education.

The results of this research may be published or shared with the agency, but your name or identity will never be used in any publication or in any conversations with other people. All identifying information (including name, date or place of birth) will be removed from any data. Data and identifying information, such as consent forms, will be stored separately from each other and in locked storage accessible only to researchers. Electronic data will be stored on a password-protected computer accessible only to researchers.

Before the interview, the researchers will assign a random code number to be used in relation to your answers to protect your identity. That way, what you say and who you are will not be linked.

Please contact any of the people above if you have questions about this project, or if you would like to obtain the final report based on this research.

**INFORMED CONSENT FOR STUDY PARTICIPANT: Interview**

**Statement of person agreeing to take part in this research study**

STUDY TITLE: Environmental Justice and Youth in Worcester, MA

RESEARCHER: Sarah Bertrand

The process, aims, affiliation, risks and benefits of this study were explained clearly to me, and I freely give my consent to participate. I understand that I might be interviewed once or twice for approximately 30 minutes each time, that there are no potential risks to me, and that my information and what I share will remain confidential, and cannot be traced back to me.

I was given a copy of this consent form for my records. I understand that if I have any questions, I can call Sarah Bertrand at 603-490-5041 or I can contact her supervisors, Dr. Laurie Ross, by phone at 508-793-7642 or by email at lross@clarku.edu or Dr. Jie Park by phone at 508-793-7737 or by email at jpark@clarku.edu in addition to contacting the university directly at: Chair of the Institutional Review Board (IRB), Dr. James Elliott, Clark University, 950 Main Street, Worcester, MA 01610-1477; phone: (508) 793-7152.

_____     _____   _____
**Name**                                                        **Signature or thumbprint**                                **Date**

I agree to audio-recorded (circle one):          YES   NO          _____
                                                                                                         Initial


_____                    _____
Signature of person obtaining consent                                                         Date