UNCOVERING YOUTH ENVIRONMENTAL IDENTITIES IN MARGINALIZED URBAN COMMUNITIES

by

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ABSTRACT

How people care for the environment differs based on cultures, significant life experiences, socioeconomic status, etc. This notion of care for the environment is described as *environmental identity* or the collection of different ways a person understands them self in relation to the environment. An environmental identity is evidenced in personality, values, and actions. The purpose of this study is to identify and describe the environmental identities of youth in marginalized urban communities. Specifically, this descriptive study used qualitative methodology in the form of interviews to identify the environmental identities of marginalized youth in Denver and to describe how formal and/or non-formal education (learning done outside of the classroom) affects these identities. Study participants described developing their environmental identities in their neighborhoods, in a community garden, and with animals. Non-formal learning experiences such as planting and harvesting produce, learning how to keep bees, observing pets, and being active in their community, have connected these youth with the environment in unique ways. The specific ways in which they connect with the environment demonstrate that having an environmental identity does not always equal enjoying time spent in the mountains or the forest. Though their environmental identities appear to be prominent, they lack salience. This lack of identity salience comes from insufficient time to dedicate to actions that align with their environmental identities and a lack of self-awareness of their actual environmental identities. Non-formal learning experiences need to be encouraged in ways that align with individual’s environmental identities. Diverse environmental identities and the different ways by which they develop ought to be an explicit part of environmental education.
research/practice. We must meet people where they are, before promoting environmentally responsible behavior.

The form and content of this abstract are approved. I recommend its publication.

Approved: Bryan Wee
DEDICATION

This thesis is dedicated to my parents for always supporting me through my life adventures.

I love you both very much.

To Ryan, my favorite person and forever partner, thank you for being there through the hardships, the celebrations, the tears, and the laughs. Your constant encouragement and support gave me the endurance I needed throughout my Colorado adventure.
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CHAPTER I

INTRODUCTION

Uncertainty still exists in what predisposes people to care for the environment. Care for the environment is important when considering the longevity of Earth and is motivated by many factors, including desire for a healthy and safe environment for humans and other living organisms, intergenerational equity or conserving the environment for future generations, sustaining biodiversity, etc.

However, not everyone who cares about the environment expresses that care in the same way, or views the environment similarly because of different cultures, significant life experiences, socioeconomic status, etc. For example, people in marginalized communities living next to a landfill or industrial waste site may express care for the environment differently than those living in more affluent communities. In these contexts that exemplify social disadvantages resulting from systemic inequities (marginalization), local air and water quality might rank higher than nature conservation or energy efficiency. In particular, youth living in these urban spaces experience and witness displacement, gun violence, and gentrification in their neighborhoods while being exposed to some of the highest rates of air pollution in the country caused by nearby highway traffic and construction, construction on unremediated property, and industrial/manufacturing sites.

Recent environmental education studies have demonstrated a need for more research on significant life experiences (SLEs) and their relations to the development of care for the environment, specifically in diverse communities. While SLE research is important, this body of work has been criticized for a “disproportionate focus on privileged groups and positive experiences” (Ceasar, 2015 p. 205). Ceasar (2015) referred to privileged groups as having ample access to “wild nature”, books, and significant environmental leaders. These experiences
and knowledge sources do not apply to everyone, especially those without “ample access”, yet tend to be the focal points of environmental education efforts. When addressing the development of care that leads to pro-environmental behavior, environmental identity should be considered because people will not commit themselves to “sustained and generative environmental action”, unless doing so has become a meaningful part of their identity (Williams, 2016, p.17). For this study, care for the environment is represented as an environmental identity that is manifested in personality, values, actions, and sense of self. An environmental identity can be described as all the different ways one understands their self in relation to the natural environment, “based on history, emotional attachment, and/or similarity” (Clayton, 2003, p. 45). An environmental identity is shaped by SLEs, for example going on family trips to natural spaces, such as the Rocky Mountains or the estuaries of the Atlantic coast, as a child or living next to an oil refinery throughout one’s childhood can shape one’s environmental identity. Identity expresses itself as a narrative, therefore developing an environmental identity requires understanding one’s story (Meijers et al., 2016). To uncover these stories, we must understand where and how they originate.

The purpose of this study, therefore, is to identify and describe the environmental identities of youth in marginalized urban communities. Specifically, this descriptive study will use qualitative methodology in the form of interviews to identify the environmental identities of marginalized youth in Denver and to describe how formal and/or non-formal education (learning done outside of the classroom) affects these identities. The results of this research will be used to broaden our understanding of environmental identity and how experiences in different settings influences care for the environment.
Rationale

As noted earlier, people within marginalized communities are subject to different life experiences and daily inequities, resulting in a care for and relationship with the environment that could vary from the ‘norm’. The ‘norm’ in this context refers to being inclined to spend time in natural settings (woods, mountains, deserts, lakes, ocean, etc.), engaging in pro-environmental behaviors such as, buying organic food, eating less meat, recycling, and riding a bike instead of driving (Derckx, 2015), and enjoying camping, to name a few examples. In addition to marginalization due to systemic inequities, marginalization occurs when we emphasize the significance of experiences that fall in line with the ‘norm’ and ignore those outside of the ‘norm’.

The challenge with norms is that they ignore the positionality of people who are subjected to social and environmental injustice. It is important to understand positionality, because socially/environmentally marginalized people are more likely to conceptualize care for the environment through their position of social disadvantage (Ceaser, 2015). Social/environmental positionality can be defined as “the mutually constitutive, intersecting, and reinforcing social/environmental relationship produced by the combination of one’s subjective experience and social hierarchy” (Ceaser, 2015, pg 206). Allowing for this type of reflection encourages people to recognize their concerns and issues as relevant, important, and something to prioritize. Given that an identity is constructed in relation to specific environments, we are able to see how social/environmental positionalities, manifested by an individual, produce different conceptions of the environment (Ceaser, 2015). Therefore, focusing on the environmental identity development of youth in marginalized urban communities is crucial to understanding similarities or differences in the hopes of promoting care for the environment.

Environmental identities are often overlooked when learning about the environment, especially the environmental identities of marginalized youth. This is because their
environmental identities are different from the dominant idea of an environmental identity and are often not recognized. Environmental identities of marginalized youth are often different because their positionalities are different, due to social disadvantages. Arguably, this could be a reason as to why there is still a lack of diversity in the environmental education field. By broadening our understanding of environmental identities and the relationship between social justice and environmental interpretation (Ceaser, 2015), educators can better develop and implement environmental education to inclusively promote care for the environment.

Additionally, and importantly for this study, environmental identities of youth in marginalized communities are not necessarily a result of formal schooling. Families and other non-formal learning experiences play a large role in environmental identity development (Chawla, 1998; Williams & Chawla, 2016; Tugurian & Carrier, 2017; Prévot et al., 2018; Eames et al., 2018). Diverse environmental identities and the different ways by which they develop ought to be an explicit part of environmental education research/practice.

With this in mind, I developed the following questions to guide my research:

1. What are the environmental identities of youth in marginalized communities of Denver?
2. How does formal and/or non-formal environmental education shape the environmental identities of marginalized youth in Denver?

**My Environmental Identity**

I have always been curious as to why some people care more about protecting the Earth, or act on this feeling of care, and others do not. This curiosity has led me to question how people come to different ways of knowing the environment and relating to it. Before exploring others’ environmental identities, I think it is important to better understand one’s own environmental identity. To encapsulate the shaping of my environmental identity and put my
positionality into context, I will share a part of my childhood narrative, full of early experiences I believe have impacted how I understand myself in relation to Earth.

Up until late middle school, I did not receive explicit environmental education and was not offered environmental classes until college, yet I have always had an environmental identity. Every year, for the first fifteen years of my life, I spent my summers on the Atlantic Coast of Florida, playing in the sand dunes, splashing in the ocean, learning how to fish, how to garden, and how to row a boat. Being able to freely explore the estuarine river, the mangroves, and the intertidal zones allowed me to develop an appreciation for the natural environment, what it can provide for us, and how to conserve it. Having shared these experiences with my brothers and grandparents plays a significant role in how I relate to the environment today. My grandfather taught me what it looks like to not be afraid of the environments around me, but also to be respectful towards them. The support, positivity, and companionship shared between us helped in creating this special place. Now, as an adult, I find that I seek water in order to feel connected to the environment and feel more inclined to protect and conserve aquatic environments.

In late childhood, I attended environmental summer camps and traveled with family across the states to visit national parks and monuments and outside of the country to experience rainforests and volcanoes. When I went off to college, I was able to travel to Central America on a volunteer conservation and research trip. Having reflected on the privileges from my childhood and young adult life, I am even more interested in uncovering diverse environmental identities. These significant life experiences place me in a position of privilege, in relation to the study population.

**Context**

*Project VOYCE*. The participants from this study are part of a youth organization for young people in historically oppressed communities, called Project VOYCE (Voices of Youth
Changing Education). After the temporary closure of Manual High School - a traditionally underserved, high minority, high free/reduced lunch, inner city public school in Denver - in 2006, Project VOYCE (PV) was founded by students of this community, to serve students. Two alumni of Manual High School helped launch PV to meet the needs and desires of the youth and community that the school was not meeting. PV believes that youth need to be engaged as partners in their own development and the development of their communities to make change. Research shows that residents of environmental justice, who have turned to activism, have had the following life experiences: the recognition of their social/environmental marginality, the embodied knowledge produced from their experiences with social/environmental injustice, and the empowerment that comes from working with others in a community for environmental justice (Ceaser, 2015). Consequently, PV represents a form of environmental activism in that it focuses on negative social and environmental experiences that are grounded in, "notions of social justice, community, and empowerment" (Ceaser, 2015, p. 214).

PV serves the communities of Globeville, Elyria Swansea, and surrounding neighborhoods. These neighborhoods of Denver have been suffering from environmental injustices for decades, starting with an industrial and commerce boom in the mid-19th century. Historic metal smelting, heavy industry, I-70 and I-25, and railroad yards continue to impact air quality, noise, soil quality and water quality (Denver Department of Environmental Health, 2014). The most evident and most complained about environmental injustices are bad odors and air quality. Residents of these neighborhoods explain that, “On a good day, it just smells like dog food… We have a unique mix of marijuana, dog food, meat rendering, wastewater treatment and oil refinery.”, that they have “…long endured the noise, pollution, and ugly physical barriers that I-70 has imposed…”, and “have suffered debilitating diseases, died of pollution-related causes, or moved away.” due to pollution (Allen, 2016, para. 2; Carter, 2016, para. 16; “Neighborhood files complaint against CDOT,” 2016, para. 4). Globeville and Elyria-
Swansea are surrounded by numerous industrial sites, including a wood treatment facility, asphalt manufacturers, an oil refinery, a pet-food manufacturer, a wastewater treatment facility, animal rendering facilities, a coal-fired power plant, and two smelters. Complaints of intense, coal tar odors have led to discoveries of naphthalene, toluene, methylene chloride, and hexane in the air, of concentrations at least two times higher than background concentrations (Morgan et al., 2015). During odor events, residents in the area have reported, “burning eyes and throat, headaches, skin irritation, and problems sleeping” (Morgan et al., 2015, p. 1127).

On top of all of this, residents face yet another reconstruction of I-70 which runs directly through the neighborhoods, originally constructed as an alternate to the expansion of a 2-lane road to a six-lane highway and consequently the demolition of several homes. Today, the city and county of Denver is planning to reconstruct this “conduit of opportunity” by demolishing the current raised highway and lowering it below grade (Denver Department of Environmental Health, 2014). The expansion would replace the current 6-lane viaduct with a forty feet deep “trench” with feeder lanes and toll lanes, making the expansion 24 lanes wide. This would require the demolition of about 53 homes and up to 16 local businesses near the present highway. In addition to being displaced and experiencing increases in local costs of living, many residents of the neighborhood worry that the reconstruction will increase air pollution, (Denver Department of Environmental Health, 2014). Despite these consistent problems, the Elyria-Swansea and Globeville neighborhoods have a strong sense of community with unique character, friendly neighbors, longtime residents, and diverse demographics (Denver Department of Environmental Health, 2014).
Literature Review

*Environmental Identity.* Thomashow (1995) described environmental identity as “all the different ways people construe themselves in relationship to the earth as manifested in personality, values, actions, and sense of self.” (pg. 3). In other words, “environmental identity is one part of the way in which people form their self-concept: a sense of connection to some part of the nonhuman natural environment, based on history, emotional attachment, and/or similarity, that affects the ways in which we perceive and act toward the world; a belief that the environment is important to us and an important part of who we are” (Clayton, 2003, p. 45-46). “This connection affects the ways in which one perceives and acts toward the world and within social interactions.” (Freed, 2015, p. 6). Ultimately, environmental identity is a socially constructed self-concept rooted in one’s connection and interdependence with the natural world; environmental identity has both social and environmental influences (Clayton & Opotow 2003; Stets & Biga 2003, Freed 2015).

An individual person takes on multiple roles in society, and therefore has multiple person identities (Stets & Biga 2003). According to Stets & Biga (2003), multiple identities are conceptualized as hierarchically arranged in terms of prominence (McCall & Simmons, 1978) and salience (Stryker 1980; Stryker & Serpe 1982). The prominence hierarchy reflects “what is desired or seen as central to the self-concept” (Stets & Biga, 2003, p. 404). The prominence of identity is dependent upon the degree to which one: (1) gets support from others about their identity, (2) is committed to the identity, and (3) receives intrinsic and extrinsic rewards for the identity (McCall & Simmons, 1978; Stets & Biga, 2003). More prominent identities are more likely to be activated at a certain time. “While the prominence hierarchy addresses what is
important to the individual, the salience hierarchy focuses on how an individual will likely behave in a situation.” (Stets & Biga, 2003, p. 404). Identity salience is the likelihood of enacting a line of action that is consistent in meaning with the identity being owned. Some identities are more salient than others, depending on the degree of qualitative and quantitative commitment one has to this identity. The qualitative dimension of commitment relates to the strength and depth of the connections to others based on a particular identity. A stronger or deeper connection to others on a specific identity correlates with a higher commitment to identity. The quantitative dimension of commitment reflects the number of people to whom one is connected through an individual's identity. The more people one is connected through having a certain identity, the greater the commitment to that identity (Stets & Biga, 2003). “Empirical evidence reveals a relationship between identity commitment, identity salience, and behavior consistent with the identity” (Callero, 1985; Stryker & Serpe, 1982; Stets & Biga, 2003 p. 404).

The concept of an environmental identity emphasizes formation through sensory and emotional engagement with certain places, at a young age, and through a sense of belonging to a social group that provides opportunities to develop environmental competence and responsibility. Environmental identities, like other types of identities are malleable over time, connected to behaviors, informed by social interactions, and can be influenced by educational experiences (Gee, 2000; Riggs Stapleton, 2015; Freed, 2015).

Previous research on environmental identity has focused on: the memories of former participants in nature-based programs, five to forty years after childhood involvement (Williams & Chawla 2016), suburban elementary school students describing positive experiences in the natural world (Tugurian & Carrier, 2017), affirming/ disconfirming high school students’ identities and behavior during environmental science classroom activities (Blatt, 2014; Blatt 2013), young children environmental identity development in rural settings (Green, 2017), the roles of environmental education at universities (Prévot et al., 2018), the shifting priorities and evolving
sense of identity of adolescents who have enthusiastically and knowledgeably embraced environmental principles and practices (Eames, et al., 2018), and teens who participated in global, environmentally-focused programming (Stapleton, 2015).

The adolescent population has long been viewed as dealing with inner struggles while trying to define relationships with the environment (Blatt, 2014). There is a need to further expand the range of research participants in environmental identity studies, to incorporate a wider range of socioeconomic and cultural diversity (Blatt, 2014; Stapleton, 2015; Holmes, 2003). The disproportionate focus on “white, male conservationists” provides a narrow description of who can be an “environmentalist” and limits our ability to conceptualize the SLEs and by extension, environmental identities of disadvantaged groups (Ceasar 2015). According to Ceaser (2015, p. 206) and Pulido (1996, p. 29), the “point of entry into environmental concerns” for people within marginalized communities is “usually framed by inequality... in intimate ways”, producing stories different from those in more affluent communities. Rarely does traditional environmental education include issues of environmental justice and multiple cultural perspectives, reinforcing dominant societal values and further marginalizing groups of youth who experience environmental inequities (Tzou & Bell, 2012). Authentic environmental education should reflect “the needs of the cultures and geographies of the communities in which it is situated.” (Green, 2017, p. 305).

The ways in which people define different roles of protecting the environment (i.e. ‘environmentalist,’ ‘environmental activist,’ ‘conservationist,’ ‘animal lover’ or other related terms) and identify with the environment, differs across socioeconomic and cultural groups (Williams & Chawla, 2016). Therefore, it is important to acknowledge and understand how different people develop an environmental identity in the ways that are personally important to them (Williams & Chawla, 2016).
A Dominant Environmental Identity. Despite the importance of understanding environmental identity development across diverse settings, there remains a dominant path into “environmentalism” originating from: experience in natural areas, family, negative experiences (i.e. habitat destruction, pollution, radiation, etc.), education, influence from friends, vocation, sense of social justice, books, principal or religion, and concern for the wellbeing of children and grandchildren (Chawla, 1999). While these pathways include social and cultural experiences necessary for environmental identity development (Eames et al., 2018; Stapleton, 2015; Wegner, 1998), there is a larger emphasis on positive experiences with(in) natural settings as being the most formative experiences for those with “high” environmental identities or strongest predictor of environmental concern (Tugurian & Carrier, 2017; Chawla, 2001; Prévot et al., 2018).

The Environmental Identity (EID) Scale measures the relationship between identity and nature by asking participants to indicate the extent to which a list of statements describes them, using a Likert scale (Clayton & Opotow, 2003; Olivos & Aragonés, 2011). The EID scale uses statements such as, “Living near wildlife is important to me; I would not want to live in a city all the time.”, “I really enjoy camping and hiking outdoors.”, “I have never seen a work of art that is as beautiful as a work of nature, like a sunset or a mountain range.”. These types of statements focus on positive experiences with nature and propose that only someone that agrees with these statements has a high environmental identity or is more of an environmentalist, the higher their score. Statements used in the EID scale are also limited to specific experiences that not many people can relate to. As Payne (2001) would say, the scale is constructed in a way that embraces end-goals or ‘oughts’ like ‘environmentally responsible’ behavior, instead of where/how people exist currently; assuming much about what individual’s environmental identities are, instead of considering socially specific significant life experiences and circumstances. Tools like the EID scale can be thought of as a form of marginalization, in the
way that it presents only one way of knowing and connecting to the natural environment; positive experiences in “nature”.

Nature experiences are often described as crucial to decrease nature deficit disorder, especially in urban settings (Prévot et al., 2018). Nature deficit disorder refers to the idea that a wide range of behavioral problems are caused by spending increasingly less time outdoors (Louv, 2008). Ceasar (2015) explains that the prioritization of nature-related experiences represents certain privileges (p. 215)

For people of social/environmental privilege, wild nature and books or teachers are accessible nature experiences and knowledge sources, respectively, while habitat destruction is a significant experience which runs counter to these prevailing themes.

For example, Martz (2017) explored how urban children, from two Boys & Girls’ clubs of metro Denver, experience a natural place outside of the city through “sense of place” and found that the children’s unfamiliarity with the natural place further disconnected them from their camp experience due to the large differences from their everyday experiences back in the city. When asked to describe their special places, descriptions of nature were almost entirely absent (Martz, 2017). Additionally, Payne (2001), describes how some environmental educators perpetuate a particular environmental identity that they think learners should have. He references Payne & Riddell (1999), who found that urban youth brought into “nature” have different outlooks on the nature experience than those more familiar with the dominant idea of nature.
...they [the learners] have little connection with or interest in local (sic) issues, be it feral animals, water shortages, or pollution. Their appreciation of the places they visit is primarily aesthetic, while there is a real fear of the environment due to inclement weather and wildlife. The learners display little responsibility for the impact on the places they visit... They are in ‘holiday mode’ (p. 71).

These types of presuppositions made about learners, teachers, schools, or neighborhoods reinforce a singular story of environmental identity (Payne, 2001). More critically, there is a ‘preferred’ environmental identity, one that shuns the everyday experiences and realities of diverse learners and thus marginalizes those who do not have this preferred environmental identity. Before attaining the “oughts” of environmental education, as described by Payne (2001), such as environmentally responsible behavior and citizenship skills, we must better understand students’ identities, lifestyles, and values (Blatt, 2014). By first understanding environmental identity, we can discover how to successfully promote environmental values that support the environment in different, equally important, ways (Payne, 2001).

**Significant Life Experiences (SLEs).** People will not commit themselves to “sustained and generative environmental action”, unless doing so has become a meaningful part of their identity (Williams, 2016, p.17). This idea is based on social practice theory, which is a tool used to examine the process of environmental learning, socialization and identity formation in early childhood through adolescence (Williams, 2016). Social practice theory suggests that as people respond to their environment and adopt and/or adapt the language, actions, and practices of those around them, they develop multiple identities in different aspects of their lives. Social practice theory identifies critical moments in people’s ongoing refinement of an identity throughout their lives (i.e. significant life experiences (SLEs)).

Tanner (1980) and Peterson (1982), introduced the research tradition of investigating backgrounds of environmental organization members and environmental educators to
determine how pro-environmental perception, motivation, and behavior emerge. Both studies explored “antecedents of dedicated action.” and emphasized environmental sensitivity as the major ‘entry-level variable’ when considering the development of responsible environmental citizenship (Chawla, 1998). Using open-ended surveys and structured interviews, Tanner (1980) and Peterson (1982) generated a list of “environmentally oriented lifestyle” influences, including: the outdoors, family, the study of natural systems, books, habitat alteration, and love for the area in which raised. Most of these categories proved to be recurring in studies whereby the populations studied tended to be predominantly Caucasian and non-representative of marginalized communities and/or youth. Studies exploring place-based environmental and science education programs as significant life experiences lacked minority perspectives and include mostly adult recollections of their experiences (Tanner, 1980; Peterson, 1982; Colvin, 2013; Howell, 2016).

SLE research has led to findings on the relationships between adult patterns of use and attitudes toward natural places and childhood experiences. Additionally, research has found how these experiences affect one’s level of “environmentalism”. Frequent visits to woodlands and other green or natural places during childhood suggest an increased likelihood of being prepared to visit these areas as an adult. Conversely, a lack of green place experience in childhood may inhibit the desire to visit these places (Thompson, 2007). Performing environmentally friendly behaviors (in various social contexts) is partially determined by such childhood connections to nature. This can consist of enjoyment of nature, empathy for creatures, sense of oneness, and sense of responsibility. Understanding young people’s environmental identities is important because, with time, they will encounter more environmental problems and require the skills and character to develop resolutions for these problems (Cheng, 2010).
Environmental identity development has historically been investigated through SLE research, which was first established through adult environmental leaders recollecting early experiences in nature (Chawla, 1999; Prévot, A. C. et al, 2018). This highlights a need for more research on diverse individuals with diverse SLEs. The significant life experiences of those with social disadvantages and negative environmental experiences are underrepresented (Ceasar, 2015). For this population, the disasters (i.e. negative environmental experiences resulting from human causes) which position individuals on social and environmental margins can be their accessible “nature” experiences and environmental knowledge sources (Ceasar, 2015).

Environmental justice residents have described three different SLEs during their journey to activism: (1) the recognition of their social/ environmental marginality, (2) the embodied knowledge produced from their experiences, and (3) being empowered by building community with others who embrace notions of inclusion in the production of lasting changes for future generations (Ceasar, 2015). “SLEs are important phenomenological moments that may change one’s life trajectory toward environmental activism (Chawla, 1998a, 1998b; Hsu, 2009)” (Ceasar, 2015, pg.206). To better understand the development of environmental identity through SLEs, we must give more attention to the contexts, situations, and positions people exist within (Ceasar, 2015; Blatt, 2014; Holmes, 2003).

*Non-formal Education and Environmental Identity.* As Chawla (1998) discusses, non-formal learning experiences are pertinent for developing a salient environmental identity. People are part of several communities outside of formal schooling and engage in learning whether consistent with formal schooling or not (Tugurian & Carrier, 2017). Environmental identities develop with experiences in the world around us (Tugurian & Carrier, 2017; Clayton, 2003). Therefore, it is important to explore various learning environments as places for environmental identity development (Tugurian & Carrier, 2017). Research has shown that personal experiences of natural spaces, family, organizations and negative experiences are more
significant to environmental identity development than formal education (Prévot et al., 2018; Eames et al., 2018). Many individuals have described significant people, commonly family members, as contributing to their environmental identity development (Eames et al., 2018).

Within psychological, sociological, and economic literature, family has been proven to play a significant role in emotional and behavioral development (Duarte et al., 2017). “… The relationships established in the family help teenagers to acquire certain attitudes, for example, moderating the effects of mass-media exposure.” (Duarte et al., 2017, p.26). Duarte’s (et al., 2017) research in environmental attitudes suggests that adolescent environmental attitudes result from a complex interplay of many social factors: family background, school characteristics, school programs, and social interactions with peers. Considering an adolescent’s first socialization circle is their family, parental guidance and reinforcement can be a “significant mediating factor for external information” and can play a significant role in shaping values, attitudes, and behaviors (Duarte et al., 2017). It was also found that environmental attitudes are transferred between family members, to some extent (Leppänen et al., 2012, Meeusen, 2014). “… the family is a particular type of small group, with special functions (such as socialization), which involve both long-term interpersonal influence as well as continual negotiations regarding conformity and change between generations (Bengtson & Black, 1973)” (Leppänen et al., 2012, p. 163). Additionally, communication has shown a strong explanatory power within families, across socioeconomic backgrounds (Meeusen, 2014). When parents demonstrate strong commitment to certain attitudes, the attitudes are more transparent to their children, increasing the likelihood that children will identify with their parents and behave in a similar way. Connecting as a family about the environment is an important “socializing factor affecting the environmental attitudes of the children” (Meeusen, 2014, p. 88).
Recognizing non-formal learning experiences, as meaningful contributors to environmental identity development, is more inclusive of the social experiences and personal attachments crucial to environmental identity (Clayton, 2003).

**Pilot Study**

With the help of my research mentors, who previously worked with PV, I was able to run a pilot study to start a dialogue with some PV youth. For the pilot study (which was part of an independent study in Summer 2018), PV youth were recruited from a summer academy held at the CU Denver campus. With the help of the PV directors and other organizers, we asked for volunteers to participate in a study focused on environmental identity, with the incentive of a pizza lunch. I also attended youth presentations on issues of social justice, to give my feedback and to maintain this partnership. These initial efforts proved to be very beneficial with later recruitment as it helped establish a partnership with PV youth and staff, developing a sense of familiarity and comfort, and allowed for a smooth transition into research collaboration. As commonly done in community-based participatory research, “showing up” and expressing care for the community’s interests is essential to building and maintaining trust with community members (Collins et al., 2018, p. 888; Emmel, 2007). When working with socially/environmentally marginalized communities or “vulnerable groups”, it is important to develop trust because historically, researcher-participant relationships have been characterized with a degree of social separation and distrust. Access into these communities is not possible without establishing trust (Emmel, 207, p. 2).

The pilot study also helped me to refine my methodologies. Most importantly, the use of a survey based on the EID (Environmental Identity) scale (Clayton, 2003) proved to be unnecessary and inapplicable when working with youth who feel disconnected from the dominant environmental identity, described in most survey statements, specifically PV youth. The participants’ disconnect from this type of environmental identity lead to inconsistencies...
between survey responses and focus group responses, as described further in my Notes from Pilot Study. Additionally, I was able to refine my interview questions based on my pilot study findings; limiting the number of predetermined questions to about fifteen questions and modifying leading questions.

The study addressed two research questions: What are the environmental identities of youth in marginalized communities of Denver? How do family experiences shape the environmental identities of marginalized youth in Denver? and consisted of six youth participants from Project Voyce (PV) in an hour-long session. The youth were predominantly Hispanic and black, and ranged in age from about thirteen to twenty-four. First, each participant was asked to complete a survey based while they had lunch. Once the surveys were completed, a focus group was conducted with the youth and audio recorded. Notes were also taken during these conversations, and these are included in the section below. The audio recordings were not transcribed because the pilot study was conducted to test the usefulness of the surveys (with this population), the language of the interview questions and to develop a relationship with PV. Hence only a few key quotes are included, primarily to reiterate some of the main points in the literature review.

Notes from Pilot Study. In general, the survey responses from participants were inconsistent with the focus group statements. For example, in the survey responses, several participants claimed they felt they had a lot in common with other species and thought of themselves as part of nature, but during the focus group the same participants described viewing humans as being separate from the natural world and some were unsure if they had a relationship with the natural world. Participants seemed to have responded to the survey in a way they thought the researchers were expecting them to (much like previous literature - see literature review section on dominant environmental identity). Most survey responses indicated high environmental identities, while participant statements during the focus group, suggested
lower environmental identities. High environmental identities result from scoring high for each Likert statement and low environmental identities result from scoring low for each Likert statement; 100 being the highest score (correlated with a high environmental identity) and 20 being the lowest score (correlated with a low environmental identity). When looking at the focus group statements, I searched for statements that expanded on or countered the statements presented in the survey, to gauge low and high environmental identities.

Participants also indicated that they largely felt disconnected from Denver’s culture and the natural environment of Colorado. For some, this is because their families immigrated here but they did not have a choice in the matter. They revealed that they feel more of a connection to the country or state they immigrated from where places are similar and familiar. Additionally, some participants believe that living in Colorado comes with certain expectations and a way of life that they find unrelatable due to social disadvantages. From their point of view, the “outdoorsy” life is only accessible to the more privileged.

Participants explained how they had more of a chance to develop a relationship with the natural world elsewhere. For example, one participant discussed how being isolated in nature, back home in Mexico and places with similar geography, had increased her appreciation for and relationship with, nature. While in Denver, participants had little to no opportunities to experience the natural world. Additionally, the environments in which the youth participants live have altered the relationships they have with the natural world. As young children, they remember being surrounded by animals and farm land and generally spending much more time outdoors. One participant explained that having these types of experiences with the natural world, influenced his/her desire to become a veterinarian. Participants also noted that as they moved around, and more specifically into urban areas, their school interests changed to the social sciences. They found that the issues surrounding their community were not due to the natural environment, but to humans. Several participants noted that they see humans as
separate from nature, and therefore view social problems as being separate from nature; the conflict is not humans versus nature, but humans among themselves.

Family experiences seem to have been the primary avenue of learning about the natural world for the participants. When asked where they have learned about the natural world, most participants discussed how their families taught them how to garden or farm and encouraged them to interact with the natural world. One participant explained that she/he did not really learn about the environment in school and that school often takes away from connecting with nature. Another participant mentioned that public schooling conditions students to be nothing more than consumers, “…when all you have to do is consume, people have to make things for you to consume. It’s easier to makes something cheaper that’s not biodegradable.” The same youth participant also stated, “School conditions you to be a perpetual consumer and to be inside your whole life.” Some participants explained that when they get the chance to travel, they feel like they know less about the environment than others. One participant clarified that if they had a chance to learn more about the environment they feel like they’d have a better connection with nature. Several other participants agreed (using non-verbal cues) that they do not have as many opportunities to travel and when they do travel, they feel less knowledgeable about their environment compared to others around them.

Several participants mentioned the lack of minority views, specifically Hispanic and black, of the environment due to the places in which they usually live. They explained how living in ghettos is not luxurious and beautiful. One participant claimed how the place where they live causes them to have allergic reactions and inhibits breathing due to the amount of air pollution. In this study, all participants defined environment as the place where you live or “a setting for life” but was often used synonymously with nature.

My Interpretations from the Pilot Study. The interpretations of my pilot study were made based on common themes presented in the language participants used to describe their
relationships with the natural environment, or lack thereof, living in Colorado. The conversations with PV youth revealed multidimensional inequities, in terms of connections to the natural environment and environmental education. Statements about “living in the ghettos” and the lack of Hispanic and black views of the environment suggest an absence of diversity in the environmental education available to these youth, as seen in limited number of environmental educators/activists that look like them and/or environmental education programs catered more toward those with ample access to the outdoors. Some participants were constantly reminded that where they live is not a “luxurious or beautiful” place. This way of thinking perpetuates a singular story; a singular way of thinking about and knowing the environment. Many of these participants seemed to equate having a relationship with the natural world as having ample access to the mountains and conforming to social norms and expectations in Colorado. Consequently, they felt removed and excluded from an environmental identity centered on positive experiences with(in) nature. It was evident that they were aware of social activism and social problems, but not really aware of environmental activism. This may be due to the PV summer academy that youth were participating in during the pilot study. It could also be a result of the prioritization of other subjects above environmental education in schools, leading to suppressed appreciation and concern about environmental issues.

According to Chawla (1999), there remains a dominant path into “environmentalism”, in which there tends to be a larger emphasis on positive experiences with(in) natural settings (Tugurian & Carrier, 2017; Chawla, 2001; Prévot et al., 2018), like camping or hiking outdoors (Clayton & Opotow, 2004). This dominant environmental identity persists in Colorado. The pilot study participants described having little to no opportunities to experience the natural environment, as they feel culturally expected to, living in Colorado. These youth feel disconnected from this type of lifestyle because the neighborhoods they live in are not “luxurious and beautiful”, like the neighborhood of those with social/environmental privileges or the natural
spaces that demographic can spend time in. Perpetuating this way of knowing and understanding the natural environment (the natural environment only being the mountains) diminishes the importance of these youth’s daily interactions and connections with the natural environment that are different from the dominant ways of relating to and knowing the environment.

Several of the pilot study participants discussed learning about the natural environment through family experiences, like gardening and working or spending time on a farm. Engaging with family in these environments has been encouraging for these youth, in how they know and understand the natural environment. Taking the time to recognize non-formal learning experiences and social and personal attachments, such as these, can lead to the development of salient environmental identities (Chawla, 1998), as well as a more thorough and diverse understanding of environmental identity (Clayton, 2003).
CHAPTER III

ANALYSIS & FINDINGS

Methods & Analysis

Developing a relationship with the PV community was key to the progress of this project and a necessary step in community-based participatory research (CBPR). Community-based participatory research aims to equitably involve community partners in decision-making and encourages partners to contribute their expertise during the research process (Christopher et al., 2008; Israel, 1998). Generally, community members work in partnership with researchers to establish the community’s needs and desires before beginning data collection. The collaborative nature of community-based participatory research allows for trust to develop, more so than in traditional Western research approaches and opportunities to involve marginalized communities (Christopher et al., 2008; Israel, 1998).

Official recruitment started with a meeting at the PV office with their staff. My research mentors and I discussed the goals of my project, with the staff, and asked how it fit in within the goals of their programming and how to accommodate their students, as well as their organization’s schedule. Before data collection could proceed, I needed to receive approval from the Colorado Institutional Review Board (IRB) to conduct human subject research. The expedited review process took about three weeks. After minor revisions were made, I received IRB approval and began recruiting participants. I pitched this research to a group of about twenty middle and high school students at Bruce Randolph School, in Denver, during PV’s after-school programming.

PV youth were invited to participate in a 30-minute interview with the incentive of a $20 gift card. I explained to the youth that my study explored how people from diverse backgrounds understand and relate to the environment, with the hope of amplifying the voices of those with
different cultures and everyday experiences. In short, I wanted to tell their stories. Stories reflect the social world and cultural history of the storyteller (Davis, 2007). Similarly, identities are practiced within personal worldviews (constructed in relation to people’s own experiences and shaped by cultural models) (Holland et al., 1998; Davis, 2007). Therefore, using storytelling as a form of data collection provided a suitable and comfortable avenue for the sharing of identities.

After attempting to recruit participants for a month, I was finally able to interview three youth (Table 1). There were several barriers to recruitment. One was waiting for youth to return their parent/guardian-signed consent forms; reminders had to be consistently sent out. In addition to inconsistencies with youth returning consent forms, their daily schedules were irregular, with additional extracurricular activities and family obligations. At the end of the four weeks, I decided to follow-up with one participant with a second interview, because of the difficulties faced during recruitment. The follow-up interview was an approach to add more depth to the specific individual’s story.

The youth participants for this study are all students of Bruce Randolph School, in northeast Denver, and are a part of PV’s after school program. Aaron is seventeen years old and is a foster child. He lives close to City Park, in Denver, with two siblings. He enjoys riding his bike to the library, playing with his little brother, playing video games, and talking with his mom. Sophie is in sixth grade and has many siblings. She lives with one older sister and one younger brother. She also has three sisters who live with her dad in Kansas; they come to visit her sometimes and she likes to visit them. Sophie enjoys reading and spending time with her family. The last participant, Lucas, is in high school. He has three siblings and lives in Swansea. He has been a part of Project Voyce the longest and participated in my pilot study in the summer as well. As seen in table 1 below, the participants are of various ethnicities and ages.
Table 1: Participant Demographic Information

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Aaron</th>
<th>Sophie</th>
<th>Lucas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity/race</td>
<td>Caucasian</td>
<td>black</td>
<td>latino</td>
</tr>
<tr>
<td>Age</td>
<td>17</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Gender</td>
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<td>female</td>
<td>male</td>
</tr>
<tr>
<td>Number of people living in house</td>
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<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Number of siblings</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mode of transportation to school/work</td>
<td>Bike and/or walk</td>
<td>Bus/family member’s car</td>
<td>Mom’s car</td>
</tr>
</tbody>
</table>

These three youth were interviewed individually using semi-structured interviews. Since identity is often expressed as a narrative, I interviewed my participants with open-ended questions, to allow for storytelling (Meijers et al., 2006). Storytelling as an approach to data collection is proven to be useful when collecting data from children and youth (Davis, 2007). Eisner et al (1990) suggests that the equilibrium shifts from the researcher towards the storyteller when using the method of storytelling. This approach can also alleviate some of the pressure that come with interviews by diminishing the use of researcher/adult cues (Eisner et al., 1990; Davis, 2007). Additionally, I conducted these interviews in a space that participants were comfortable and familiar with - in their school building.

Thematic and structural analysis was used to analyze interview data. Both are types of narrative analysis, which is “a family of approaches to diverse kinds of texts, which have in common a storied form” (Riessman, 2005, p. 1). Thematic analysis emphasizes the content of a
text and aims to find common patterns across a data set. It is a search for emerging themes, important to the description of the phenomenon (Fereday & Muir-Cochrane, 2006; Daly et al., 1997). For example, while describing their neighborhoods, participants spoke about feeling unsafe outside. The many appearances of the words ‘safety’ or ‘unsafe’ led to an emergent theme of neighborhood safety. Structural analysis focuses on the way a story is told. A participant showing excitement when describing the honeycomb, she receives from the beehive in her community garden or laughing when telling a story of a personal experience depicts the tonality of their stories and is an example of structural analysis. Including a structural approach to analysis is useful for smaller research sample sizes and detailed interview data (Riessman, 2005). Analysis of how sentences and stories are formed can lead to valuable insights into identity.

Through thematic analysis, seven categories of environmental identity were identified and found across all three interviews. The categories include: 
- neighborhood safety
- community
- family/significant interpersonal relationships
- minimal free time
- connections to the natural world in the city
- relaxation, peace, and quiet
- non-formal learning

Throughout my analysis, these categories highlighted the day-to-day experiences of these youth and what they find important. Structural analysis helped capture the tone of the youth’s stories and highlighted feelings about certain topics and the prominence of participants’ identities in relation to issues such as social justice. These seven categories can be grouped into two emergent themes: persistent dominant environmental identities and different environmental identities.

Findings

Persistent Dominant Environmental Identities. Remnants of the dominant environmental identity of being an “environmentalist” emerged while speaking with the PV youth. Aaron and Lucas both had difficulties understanding what ‘natural environment’ means. After clarifying that ‘natural environment’ can be described as the area we live in or the outdoors, Aaron then said,
“so nature?” He equated ‘natural’ environment with ‘nature’. The use of the word ‘nature’ was intentionally avoided, as it tends to be viewed synonymously with dominant western world views of the environment and of a particular type of environmental identity (as described in the literature review). Therefore, I chose to use the term, ‘natural environment’ because humans exist within the natural environment and the natural environment includes all living and non-living things. The natural environment varies on a continuum and is not uniform across all settings nor the same for all people. Once Lucas understood what I meant by ‘natural environment’, he was able to respond to the question, “How have you learned about the natural environment?”. He described traveling around places like, Aurora and Commerce City, with some of his uncles and other family members to learn about the natural environment. Then he mentioned that some of those places were rural and open spaces. It was evident that he was searching for an answer that he thought I, as the researcher, was looking for. Participants 1 and 2 shared similar stories. During a second interview with Sophie, she talked about going to Red Rocks with her family to, “look at the rocks [italics added]”. She described looking at rocks while giggling. The way in which she giggled indicated a sense of surprise or unfamiliarity with the activity of looking. It seemed that she may have felt out-of-place when all she did was “look” (instead of hike, for example), and so her giggling was perhaps intended to signify that looking was something foolish that one did in these ‘natural’ spaces. Similarly, Aaron described the Cheyenne Zoo, as being better because it is in the mountains and more open; perhaps it is more “natural” than a zoo in the city.

Lucas described being connected to the natural environment just within his neighborhood, Swansea, where he has lived most of his life. He further described how he finds it difficult to connect to places outsides of his neighborhood, that he has visited and learned from, because he does not have the opportunity to spend much time in these places. This disconnect from natural spaces suggests that what these youth perceive to be a natural
environment or nature may be grounded in preconceived ideas of what an environmental identity and the natural environment is. Upon first asking Lucas if he has a relationship with the natural environment, he responded with, “No. Not really”. After discussing more about how he learns about the environment and the places he does feel connected to, it seemed that he does have a relationship with the natural environment, in his neighborhood. He did not consider it as a relationship or connection because it may be different from the more dominant ideas of connecting to nature. Aaron described being connected to the natural environment through animals, mostly dogs. He thinks of spending time with dogs as an avenue for stress relief and a way to avoid fighting when angry. Aaron immediately associated the natural environment with ways in which humans exploit the earth. When asked what comes to mind when he hears the term, ‘natural environment’, he said, “it needs work”. He further described how he sees the natural environment by discussing air pollution; harmful to both ‘nature’ and humans. He mentioned that his brother experiences sensitivity to air pollution and increases in asthma symptoms when air quality is low. In an effort to combat air pollution, he chooses to ride his bike over driving a car. He described riding a bike as helping nature, by reducing the harmful impacts of using a car, and helping yourself because it requires physical exercise.

These interview responses suggest a reliance on the dominant ideas of nature and of a dominant environmental identity. Specifically, these youth felt a need to insert particular types of places into their stories, places that are often thought of as “nature” or “natural” and that represent a (persistent) dominant environmental identity.

Different Environmental Identities. Across all three interviews, PV youth emphasized their concerns for neighborhood safety. They often described feeling unsafe when hanging outside and disliking their inability to go outside as much as they wanted, due to the feeling of unsafety. Sophie explained that where she lives affects what she is able to do outside of school, “…Like after school and stuff, I’m just thinking about will I be safe? Will people be talking about
guns and stuff?”. Not only are these youth experiencing discomfort and fear, family and neighbors are often heard speaking about gun violence, gangs, and child abduction. For example, Sophie described a time when her neighbors came over to her apartment talking about a shooting that recently happened,

...just yesterday someone had got shot right by my house and there was police outside. I couldn’t even sleep...people like from different apartments they come to our apartment to talk about it and stuff.

When participants were asked what their ideal neighborhood would feel like, they described feelings of safety, security, and calmness. This expression of desiring calmness and peace emerged throughout the interviews and from all participants. Lucas described his ideal neighborhood as, “looking like before the I-70 reconstruction project; peaceful, no racism and major class divisions”. Sophie shared a story about the place she has a special connection with, her community garden. She described her community garden as a place where she can relax and meditate. To her, the community garden provides a safe place to enjoy the natural environment. She explained,

I like to go to the garden because it’s calm there and it feels like safe, because it’s like a gated area. Where you can’t come in unless you have this key to the garden, which we do have, and it feels like safe and welcoming and it feels like peaceful.

While sharing her story, she used words like, “relax”, “meditate”, “calm”, and “peaceful. Additionally, these youth initially think of feelings of frustration and tension when asked to speak about their most familiar environments, their neighborhoods. They often spoke about feelings of unsafety due to gun violence and reports of child abduction in the neighborhood, as if these topics are commonplace to them. For example, Aaron explained that in his neighborhood “there’s a lot of gang violence that’s been going on, but I live on Cook St., so it’s kind of calm if
you do what you need to do”. When asked why she thinks her neighborhood is unsafe, Sophie responded with, “ever since we moved there my mom got this job at IHop and like her coworker told her that kids have been missing over the ten days since we got there, so then my mom wouldn’t let us go outside”. While these are often feelings people seek, desiring these feelings at the age of 12 seems uncommon for modern youth.

These youth expressed not having much free or alone time. When Sophie leaves school, “it’s a process”. Her “process” of getting home after school and extracurricular activities, consists of: picking up her brother from one school and her sister from another school, going to her grandma’s house, and waiting until her mom gets off of work. Sometimes they drop off friends and her uncle too. This process usually takes about an hour. By the time she gets home she has enough time to brush her teeth and read or do homework before going to bed. When she has enough time (and it is not dark outside), she likes to hangout in her community garden. She described truly wanting more free time, especially more free time to spend with her family. They usually don’t get to spend time with each other due to their individual, busy schedules. She seemed frustrated when telling her story of getting home every day. Aaron and Lucas expressed a need for more alone time. Aaron described wanting to have more time to be by himself because his younger brother often interrupts his calmness. Lucas enjoys spending time in his neighborhood park alone.

Participants discussed the sense of community in their neighborhoods as what they liked most about their neighborhoods. Sophie likes going to the community garden and swimming pool because she can meet nice people, hang out, and barbeque. She shared the story of when she first went to the community garden. Her and her family met the neighbor who started the community garden. She showed them how to plant fruits and vegetables and how to grow trees and other plants in the winter. She still has a relationship with this neighbor, through the garden. They learn about different plants and grow and harvest fruits and vegetables together. She
goes to the garden, when she has free time, to read, spend time with her little brother, and learn about plants. She feels that she learns more about the natural environment when in the garden than in school, because there are people that she spends time with in the garden that can explain the environment in different ways, specifically her neighbor that started the community garden. Having people to share these experiences with facilitates learning in her favorite natural space. When in the garden with her siblings and parents, she can teach them how to garden and learn together. When talking about her community, Sophie described that she likes meeting and interacting with people to “get their vision in life”. Lucas likes that most of his neighbors have been living in his neighborhood for the majority of their lives and that neighbors are kind to one another; they don’t “start a lot of drama”. Unfortunately, he thinks construction projects, like the I-70 project, happening in his neighborhood could have negative effects on their sense of community. Several physical construction barriers isolate certain areas of the neighborhood. For example, he described that access to the nearby park has been limited. Construction barriers block the road leading up to the park. He has noticed that fewer and fewer people have been using the park. When asked to describe his neighborhood, he talked about the neighborhood demographic (ethnicities/races) before discussing what he enjoyed about the neighborhood (e.g. quietness, nice people, community).

Sophie discussed learning about the natural environment through non-formal experiences. In addition to learning about gardening in the community garden, Sophie learns about honey harvesting and pollination with her neighbor. She expressed the most joy when talking about the beehives. She loves eating honeycomb, so she takes time to learn about how honeycomb is made, in her community garden. Both Aaron and Lucas learn about the natural environment through a combination of formal and non-formal experiences. Aaron talked about learning happening everywhere and how it cannot just happen in school. It happens through everyday experiences, like observing your pets. He described learning about animals and
animal cruelty in school, but these topics started to make more sense after seeing some of the harmful effects humans have on animals, wild and domesticated alike. For example, he told a story about the first time animal cruelty impacted him,

When I first started making sense of it is when I saw a cat on the side of the road, it got hit and nobody even did anything. It was there for a long time, I saw it going to school every day. People abusing animals and then sending them to an animal shelter or killing a wild animal, if they don’t want it they just leave it, stuff like that. So, to me, they are saying that animals are like toys to them. Yeah. We need them, but we don’t really need them.

Aaron now enjoys watching nature and science documentaries to learn about animal behavior as well. Similarly, Lucas described learning about environmental topics in school, specifically in classes such as geography and biology, but made sense of the ideas learned outside of school. He explained that he would not have been able to recognize environmental impacts and neighborhood changes, when traveling around with family, if he had not heard about them in school first.

As he has gotten older, Lucas described becoming more aware of the changes occurring in his neighborhood, with the help of what he learns in school. Consequently, his connection with the natural environment, his neighborhood, changes as gentrification occurs in his neighborhood e.g. limiting access to parks. Sophie thinks her relationship with the natural environment has changed with her fear of the outdoors and critters. She described not ever wanting to go outside in the rain because worms and bugs scared her. Now, she likes going outside in the rain because, to her, it feels like she learns much more when she spends time outside. She gains new knowledge from going outside that she once avoided due to fear. This change happened when she moved to a new neighborhood in 5th grade—she and her family had to move to this new neighborhood because they could not afford to live in their old house.
anymore, as the bills were increasingly expensive. The garden has helped her see that beauty exists in uncommon things, like bugs, trees, and spiders; they can help you in different ways and provide you with materials that you can use later in life. For example, she learned that scientists are learning how to use the silk from spiders to make stitches, used for injuries. When Aaron talked about animals and land, he implicitly emphasized conservation. His dislike for neighborhood changes centers around humans destroying open land and taking it away from wild animals and plants for more residential development. He expressed frustration when talking about how humans choose to treat the earth, especially the animals that live with the earth. He thinks that open space should be preserved for animals, instead of keeping animals in small zoo cages.
CHAPTER IV

DISCUSSION & FINDINGS

Discussion

To address the following research question, *What are the environmental identities of youth in marginalized communities of Denver?* I used Stets and Biga’s (2003) hierarchical categorization of identity based on identity prominence and salience (see figure 1). I created the flow chart, depicted in figure 1, to help visualize what constitutes the prominence and salience of identities. To determine if someone has an environmental identity, we can look at the prominence (i.e. prominence) and the salience (i.e. the likelihood of acting in a manner consistent with the identity) of an identity. Once prominence and salience are established, then the environmental identity can be compared to the individual’s other identities, to be hierarchically arranged. Prominence is dependent upon support from others about the identity, commitment to the identity, and gain of intrinsic and extrinsic awards for the identity. Support from others about an environmental identity can look like, family or friends occasionally joining the individual in the garden or parents showing interest in their child being active in their community. An individual committed to their environmental identity might continue to learn about animals outside of school, at zoos, museums, or down the street from their house. The intrinsic rewards someone receives from an environmental identity can be feelings of relaxation while spending time in their special place, while extrinsic rewards might be to fit in with a particular group of people, that likes similar activities. Identity salience depends on the number of people one is connected to through the identity, as well as the strength and depth of connections to those people. For example, a salient environmental identity would exist if an individual volunteers at an animal shelter, where they work with several other people who have a passion for animals and who learn about animals together.
The study participants’ environmental identities center around a community garden, a neighborhood, and animals/animal cruelty. The prominence and salience of participants’ environmental identities was based on how often they spoke about the related topics and the emotions they revealed while discussing the topics. The following sections describe participants’ environmental identities through the lens of prominence and salience.

*Identity Prominence.* The commitment the three participants have to their environmental identities signifies prominence. Their continuous efforts to learn more about their environments shows investment in their environmental identities. Sophie chooses to go to her community garden, when she has free time, to learn more about gardening in the winter and how to harvest honey. She also supplements her hands-on learning with plenty of reading. Reading is one of her favorite activities, especially reading in the garden. Aaron shows commitment to his environmental identity by observing animal behavior, going to the Denver Nature and Science
Museum, watching nature and science documentaries, and visiting animal shelters. He described always having an interest in and love for animals, specifically dogs, but found his connection to them after watching many people ignore an injured animal on the road. His knowledge and care for animals extends past animal behavior and emphasizes conservation. For example, he discussed his dislike toward zoos and restricting animals to small spaces. Additionally, he takes notice of how development in his neighborhood consistently harms or destroys local animal habitats. Negative neighborhood development aligns with Lucas’s environmental identity as well. Interestingly, (pseudonym) environmental identity indicates strong social justice roots. He, as well as the other participants, frequently used words and language associated with social justice, such as unsafe, cops, taking over, displace, lower class, access, and racism. Lucas likely spoke more about social justice issues because of the longer amount of time he has spent with PV. He frequently referenced the city and county development projects occurring in his neighborhood, that are leading to increasingly high cost of living and displacement, when describing his relationship to his neighborhood or connection to the natural world. What he has learned from both Project Voyce and school has increased his awareness of the social/environmental issues happening in his neighborhood that affect the health and wellbeing of his neighbors and family. His engagement with Project Voyce and efforts to continue learning show commitment to his environmental identity. Importantly, Aaron and Lucas strengthened their understanding of issues learned in school, such as animal rights and gentrification, by spending more time in their special places. By sitting in his neighborhood park near the I-70 reconstruction and taking time to observe his pets, Aaron and Lucas expand their learning through experience.

Identity prominence also depends on the intrinsic and extrinsic rewards received from the identity. Ryan and Deci (2000) define intrinsic motivation as, “the doing of an activity for its inherent satisfactions rather than for some separable consequence” (p. 56). Intrinsic motivation
can be in the form of fun, challenge, or stress relief, instead of external pressure or goals (Ryan & Deci, 2000). Some of the common intrinsic rewards the participants received from their environmental identities include feelings of peace, relaxation, stress relief, and joy. Sophie consistently referred to her community garden as a place where she goes to meditate, learn, and read (one of her favorite activities). Aaron also described his environmental identity in relation to stress relief. He referred to spending time with animals as a “coping mechanism” or a way to avoid angry behavior. When Lucas talked about his environmental identity, in relation to his neighborhood, he expressed love for his community, having lived there for the majority of his life. He also spoke about his community in a way that revealed comfort. He told a story about when he and his family moved to Montbello for a short period of time, then moved back to Swansea in the house right next to their first house. When asked if he liked one neighborhood better than the other, he said, “Not really. I think, I think both of them were nice, but I like my neighborhood better [italics added].” His ownership of Swansea as his neighborhood alludes to a sense of familiarity and comfort with this environment he feels most connected to, that intrinsically rewards him.

Extrinsic motivation is “a construct that pertains whenever an activity is done in order to attain some separable outcome” (Ryan & Deci, 2000, p. 60). In other words, rather than engaging in an activity for the enjoyment of the activity itself (i.e. intrinsic motivation), value is obtained from external rewards such as money, praise, or eating tasty food. Sophie receives extrinsic rewards from her community garden by harvesting fruits, vegetables, and honeycomb. In addition to receiving feelings of peace and relaxation from being in the garden, she gets fresh produce and one of her favorite treats (i.e. honeycomb). For Lucas, the socio-cultural inequalities he experiences and sees in his neighborhood extrinsically motivate his environmental identity. As we work to minimize these inequalities, he ultimately is being rewarded with a better and more peaceful community. As Ceasar (2015) and Pulido (1996)
describe, inequality is often the starting point for environmental concern and care for many marginalized youth.

Identity prominence also depends on support from others about the identity (Stets & Biga, 2003). According to the literature, significant people, like family members, contribute to the development of environmental identity (Tanner, 1980; Peterson, 1982; Chawla, 1999; Eames et al., 2018). For example, having family spending every summer, as a child, camping, swimming, and hiking in the Rocky Mountains with family and close friends can initiate the importance of the place and the development of an environmental identity. Sophie began developing her environmental identity with the introduction to her neighbor who started the community garden. Because of the neighbor’s interest in gardening, Sophie has been supported and encouraged to keep going to the garden. She learns new gardening and beekeeping strategies with her neighbor, each time she returns to the garden. Additionally, her mother supports the development of her identity by giving her permission to go to the garden, even though aspects of their neighborhood can be unsafe. Lucas receives some support from others about his environmental identity, evident in the fact that many of his neighbors also feel strongly about the harm that projects, like the I-70 reconstruction project, bring to his community (Allen, 2016; Carter, 2016; “Neighborhood files complaint against CDOT,” 2016). His description of community members who work to reduce the amount of litter around their neighborhood and support local small businesses indicates a communal effort to retain a healthy, “peaceful”, self-sustaining community.

**Identity Salience.** The strength and depth of connections to others about an identity, as well as the number of connections made, determines the level of salience of an identity. All three participants’ environmental identities are prominent, in relation to other identities, but lack salience. According to Stets and Biga (2003; Figure 1), the salience of an identity depends on the degree of qualitative and quantitative commitment to the identity. Aaron demonstrated at
least one strong/deep connection to her neighbor who introduced her to the community garden. Without her neighbor, the development of her environmental identity, in relation to the garden, would not have occurred in the same way. The community garden probably would not exist today without her neighbor. Also, the continuous learning between her and her neighbor reinforces the connection they have. Where salience of the participants’ environmental identities falls short is in the number of people they are connected to through these identities. Due to a lack of free time and stressful social issues within the participants’ neighborhoods and families, however, these youth have not been able to act in a manner consistent with their environmental identities. For example, Aaron and Sophie have not been able to establish a community of people in which they can talk about and engage in activities about gardening or animals, because of financial limitations, feeling unsafe in their neighborhoods, etc. Neither Aaron nor Sophie mentioned connections to others through their environmental identities. Aaron often expressed a need for more time to himself and not enjoying being surrounded by people. This could be due to fact that he has been a foster child and has lived in a group home before; constantly surrounded by people.

Another obstacle to the development of identity salience is that these youth do not recognize their identities as environmental identities, in which they feel comfortable deeply connecting with others; lack awareness of their actual environmental identities. Being connected to “nature” is often portrayed as a single story; going out into the mountains or the forest, especially here in Colorado. When they described their environmental identities, they spoke about what they liked about their neighborhoods and the places or things they had a special connection with. In these descriptions they did not use words like ‘nature’, ‘environment’, or ‘outdoors’ as they did when they shared experiences they had that aligned with dominant environmental identities. When these youth described experiencing these prescribed nature places, they often felt disconnected from the places and unfamiliar with the activities engaged
in. According to Ceasar (2015), this exemplifies some of the nature experiences that run counter to marginalized youth’s life experiences.

In the of development of identity, identity salience determines if and by how much an individual will act in line with a particular identity. With environmental identity, this is crucial because of how unaware people can be of their environmental identity. If someone is not aware of their unique environmental identity, due to preconceived ideas of what an environmental identity can be, then the process of salience cannot happen. This often happens with marginalized youth, reinforcing yet another form of marginalization. By reinforcing dominant environmental identities, these youth cannot recognize their unique environmental identities and allow their identities to develop. If we want to promote environmentally responsible behavior, we need to first promote the development of salient environmental identities.

*Formal and/or Non-formal Education and Environmental Identity Development.* My second research question was: *How does formal and/or non-formal environmental education shape the environmental identities of marginalized youth in Denver?* According to Tugurian & Carrier (2017) and Clayton (2003), environmental identities develop with experiences in the world around us (i.e. non-formal learning experiences). These non-formal learning experiences are necessary for environmental identity salience (Chawla 1998). To answer this research question, I asked participants the following, “How have you learned about the natural environment?” The participants’ experiences in the garden, in their neighborhood, and with animals have supported and bolstered their knowledge gained in school (i.e. formal education), as well as informed their environmental identity development. Aaron relates what he sees in nature and science documentaries and science museums and experiences he has as his neighborhood continues to grow, to what he learns in school. His interest in animals started to grow upon going to the Denver Museum of Nature and Science with his past group home and by simply observing while outside in his neighborhood he has made more sense of what he
learns in school. In particular, the continuous construction of new apartments and homes taking the habitats away from animals catches his attention. With more experiences like these, he does more online research and watches documentaries on these topics. Sophie’s experiences with the garden have provided her with an opportunity to feel connected to the environment in her own neighborhood. From spending much time there, she has developed a sense of ownership in her garden. Having access to this space and knowledge of what happens in the garden provides her with a special connection. Lucas’s involvement with PV strengthens his connection to his neighborhood and his drive to make it the peaceful place he knew it to be. Working to minimize or resolve local social/environmental inequalities supports his happiness and life in Swansea, as well as what he learns in school. Each participant in this study has an environmental identity that deserves recognition and sustenance. By highlighting the importance of these specific identities, we can demonstrate how diverse environmental identities can be, beyond having positive experiences with(in) nature.

PV youth participants developed their environmental identities in their neighborhoods, in a community garden, and with animals. Non-formal learning experiences such as planting and harvesting produce, learning how to keep bees, observing pets, and being active in their community, connected these youth with the environment in unique ways. These are their environmental identities. These youth experiences, no matter how far they deviate from the ‘norm,’ should be recognized as significant life experiences that continue to influence their environmental identities. By integrating the exploration of environmental identity and unique life experiences into environmental education, without first prescribing people to certain environmental identities, we can progress towards uncovering more diverse and true environmental identities.

The participants’ environmental identities are prominent, in that they show commitment to their identities, receive intrinsic and/or extrinsic rewards from their identities, and receive
support from others about their identities. Though their environmental identities appear to be prominent, they lack salience. This lack of identity salience comes from insufficient time to dedicate to actions that align with their environmental identities and concerns/fears of neighborhood unsafety, amongst other social issues. Having to constantly worry about being safe and keeping up with busy schedules, as young people, can take away from activities like gardening or spending time with animals. Lack of environmental identity salience also results from a lack of self-awareness of their actual environmental identities. The ever-present, outdoorsy and adventure culture (e.g. enjoying camping, hiking, skiing, and being in the mountains), especially in Colorado, suggests one way of connecting with and understanding the natural environment. Many youth of marginalized communities feel excluded from this lifestyle because of its lack of accessibility. Therefore, they view themselves as not having environmental identities. To increase their self-awareness of environmental identity, and subsequently their identity salience, we need to reframe how we think about the environment and environmental identity within environmental education. When these fundamental topics are discussed and learned in ways that include broader audiences and experiences, then feelings of exclusion from having an environmental identity can be avoided.

Non-formal learning experiences need to be encouraged in ways that align with individual’s environmental identities. Diverse environmental identities and the different ways by which they develop ought to be an explicit part of environmental education research/practice. Instead of diving right into the environmentally responsible or minded behaviors everyone ought to do, we, as educators, should be taking time to understand what people know about themselves in relation to their natural environment. This will allow for more authentic and meaningful actions that better our world. Additionally, environmental education, as a whole, should be integrated into formal education. If environmental education is included as part of the normal school curriculum, it will start to be viewed with just as much importance, as subjects
such as math or social studies. Also, having environmental education incorporated across all classes will emphasizes the fact that the environment exists and can be learned about everywhere.

Further research on environmental identity and significant life experiences is needed in relation to marginalized communities and diverse environmental learning experiences. I recommend pursuing more environmental identity research in areas where obvious geographical divisions exist; for example, Denver. People often look at Denver and think of the city vs. nature. As my study demonstrates, we can learn much from how people conceptualize the environment and connect to the environment, in these locations. Learning more about environmental identities of youth, in similar locations, around the world could provide additional insights on how to increase environmentally responsible behavior and the longevity of the earth. In terms of methodologies, the explicit utilization of storytelling with environmental identity research can lead to rich and authentic data.

Conclusion

As urbanization continues (Lin, 2018; Nethercote, 2018; Xu, 2018), it is increasingly important to understand the different ways people understand themselves in relation to earth. In order to promote environmentally responsible behavior, we must meet people where they are. Before reaching the “oughts” of environmental education such as environmentally responsible behavior or environmental activism, we must better understand individuals’ environmental identities. As we broaden our understanding of environmental identity, we approach how to successfully promote environmental values that support the environment in different ways. Not everyone who cares about the environment expresses that care in the same way, or views the environment similarly because of different cultures, significant life experiences, socioeconomic status, etc. People within marginalized communities are subject to different life experiences and daily inequities, resulting in a care for and relationships with the environment that could vary
from the ‘norm’ (i.e. spending time in natural settings, engaging in pro-environmental behavior, or enjoying camping). These types of norms often ignore positionality of people who are subjected to social and environmental injustice. Given that identities are constructed in relation to specific environments, we can learn how social/environmental positionalities shape concern/care for and understanding of, the natural environment.

REFERENCES


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Glossary

*Environmental identity* - the collection of the different ways one understands themselves in relation to earth as presented in personality, values, actions, and sense of self

*Marginalized Communities* - socially excluded groups of people for different reasons, such as age, physical or mental disabilities, economic status, access to education, or live in isolated places, depressed areas, or those facing environmental injustice

*Youth* - young people in the period between childhood and adulthood

*Formal education* - structured, school-based learning provided by trained teachers

*Non-formal education* - learning that is not limited to a school classroom and works through conversation, and the exploration and expansion of experience; typically happens outside the classroom, in after-school programs, community-based organizations, museums, libraries, at home, with family, traveling etc.
APPENDIX B

Interview Questions

• Can you please describe your neighborhood?

• What do you like/dislike about the neighborhood you live in? Why?

• What does your ideal neighborhood look like? Why?

• Do you have any free time?

• What do you do when not in school or at work?
  o Where do you like to hang out and why?

• Is there anything you wish you could do more of, when not at school or work?
  o Why?
  o Is there anything you would want to do less of?

• Do you think where you live affects what you would like to do outside of school or work?

• Do you have a special connection with a particular place(s)? Why?

• How have you learned about the natural environment?
  o If yes, where?
  o If no, why not?

• Do you have a relationship with the natural environment?
  o Why or why not?
  o How would you describe your relationship with the natural environment?

• Do you think your relationship with the (natural environment) has changed over time?
  o Can you think of a specific point in time or a specific experience?
  o What changed?
  o Why?

• What has influenced the ways you see yourself in relation to the natural environment?
• In general, what do you know about sustainable practices such as recycling, using alternative transportation, buying local and “being green”?
  o How/where did you learn about these practices?
APPENDIX C

EID Scale (adapted from Susan Clayton, 2004 and used in pilot study)

Please indicate how much you agree or disagree with each of the following statements using the appropriate number from the scale below.

1 2 3 4 5
Strongly Disagree Strongly Agree

1. ___ I have free time (time outside of school, work, etc.).
2. ___ I spend my free time in natural settings.
3. ___ I spend my free time in non-natural settings.
4. ___ I think of myself as part of nature, not separate from it.
5. ___ If I could, I would spend some of my time working for environmental causes.
6. ___ When I am upset or stressed, I can feel better by spending some time outdoors.
7. ___ Living near wildlife and green spaces is important to me. I would not want to live in a city all the time.
8. ___ Living in a city is important to me. I would not want to live near wildlife and green spaces.
9. ___ I believe that some of today’s social problems could be solved by living in harmony with nature.
10. ___ I feel that I have a lot in common with other species (plants, animals, other living things).
11. ___ I feel that I am connected to a particular place that had an impact on me.
12. ___ Behaving responsibly toward the earth -- living a sustainable lifestyle -- is important to me.

13. ___ Learning about the natural world should be an important part of every child’s upbringing.

14. ___ In general, being part of the natural world is an important part of how I see myself.

15. ___ Sometimes I feel like parts of nature have a personality of their own.

16. ___ An important part of my life would be missing if I was not able to get out and enjoy nature from time to time.

17. ___ I feel a spiritual connection with natural spaces.

18. ___ I keep things from the outdoors in my room, like shells or rocks or feathers.

19. ___ I would rather live in a small room or house with a nice view than a bigger room or house with a view of other buildings.

20. ___ Making environmental change, like having clean water for everyone, reducing air and water pollution, or fighting climate change, is important to me.