ABSTRACT

STRANGE, CASEY. Constructing Nature: Exploring the Movement to Conserve the Monarch Butterfly in North America. (Under the direction of Dr. Sarah Bowen.)

This dissertation investigates how framing and valuation processes intersect to shape conservation behaviors and actions in the transnational conservation movement to protect the Monarch Butterfly. Guided by frame analysis and recent scholarship in valuation studies, I analyze how participants across North America construct meaning and assign worth to nature. I used a comparative case study method, interviewing participants in Canada, Mexico, and the United States. I trace how participants articulate frames that both reflect and reproduce cultural logics of value. Three primary frame groups—Nurturing Nature, Stewarding Nature, and Conserving Nature—emerge from lived experiences, social contexts, and cultural traditions. Each frame informs distinct valuations and conservation strategies, which generate specific tensions and opportunities for collaboration. This project contributes to environmental sociology and the field of valuation studies, which continues to move beyond markets, to show how values are socially constructed by individuals within environmental movements. In doing so, it reinforces that conservation is not only a biological or technical endeavor, but also a deeply social process.

Constructing Nature: Exploring the Movement to Conserve the Monarch Butterfly in North America

by

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Biography

Casey Strange is a native North Carolinian. She graduated from the University of North Carolina at Greensboro with her BA in Sociology in 2009 and her MA in Sociology in 2012. She wrote her master's thesis on occupational ideology and identity among informal workers in Bogota, Colombia. During her graduate studies she took a deep interest in applied research and has served as the Director of Learning and Evaluation for the North Carolina Partnership for Children since 2021.

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AUTHORSHIP STATEMENT

Casey Strange is the sole author of this dissertation with support from Dr. Sarah Bowen and recommendations from the advisory committee.

Generative Artificial Intelligence tools were used to make recommendations on the improvement of grammar and writing style in this dissertation.

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Chapter 1-Introduction

Each winter, millions of little black and orange butterflies cluster in the high-altitude forests of central Mexico, completing one of the most remarkable migrations in the natural world. The Eastern Monarch Butterfly's (hereafter referred to primarily as the Monarch) annual migration spans Canada, the United States, and Mexico. Unfortunately, the Monarch is now at risk, with the population decreasing by 84% between 1996 and 2015 (Semmens et al. 2016). Scientists attribute this decline largely to habitat loss associated with reduced number of milkweed plants, which serve as Monarchs' primary food source (Flockhart et al 2014). Because the species depends on distinct ecosystems in each country, no single nation can save it alone; successful conservation requires coordinated efforts across borders.

In response to the "Monarch crisis," conservation efforts have emerged across North America. These include reforestation projects in central Mexico, backyard butterfly gardens in the United States and Canada, as well as educational programs across the continent. Some citizen scientists have even taken to collecting Monarch eggs and rearing caterpillars by hand in their homes.

The Monarch crisis illustrates two urgent global challenges: preventing the collapse of ecologically sensitive areas and figuring out how to develop the international collaborations that are necessary to be able to protect these environments. By igniting scientific inquiry over the causes of the decline as well as conservation efforts, the crisis raises critical questions about how different societies and individuals define, value, and

act on behalf of nature. This dissertation examines these questions by analyzing how actors across Canada, Mexico, and the United States frame their relationships with the species. I draw on Goffman's frame analysis to understand how interpretive frameworks shape valuations and actions for individuals involved in conservation. I also explore how they assign value and negotiate conservation strategies as part of a movement to protect one of North America's most iconic species.

As individuals and as societies, we assign values to the lives of plants, animals, and people. In both our action and inaction, we define what or who is worth saving. Different institutions create devices and frameworks that serve as criteria for their assessments of value, but few of these frameworks are universal (Baka 2015). In different social arenas and within different organizations in a given arena, actors emphasize different characteristics of a species or subspecies when assessing its value. For example, a community in Mexico that hosts a Monarch colony and receives tourism may focus on the aesthetic value to draw more tourists, while a conservation biologist in the United States might emphasize the Monarch's value as an indicator of the general health of pollinator insects (Huets and Mol 2013). This project is guided by a core concern: How do social actors come to understand their relationships with nature and define its value? How is this related to the country and context in which they live? I use frame analysis to explore how frames inform the social construction of value and then shape conservation strategies and participation across North America.

This project builds on and extends frame analysis and valuation theory. My project builds on calls within environmental sociology for middle-range theorizing that explore factors and logics shaping environmental action (Hannigan 2024). By examining how frames and

valuations of the Monarch Butterfly differ across contexts, I contribute to this developing sociology of environmental morality. Goffman's (1974) frame analysis provides a foundation for understanding how individuals interpret and organize their experiences, a concept later expanded to the macro level to study the work and impacts of environmental movements (Snow et al. 1986; Brewster and Bell 2010; Capek 2012). These studies demonstrate that frames generated by social movement organizations not only shape how actors interpret environmental issues but also guide their strategies for engagement. Likewise, research on valuation highlights how values are not inherent, but socially constructed through cultural, institutional, and material practices (Fourcade 2011; Heuts and Mol 2013; Baka 2015). While scholars have explored how valuation processes influence environmental policies and markets, and many have explored framing in transnational movements, less have examined how valuation and framing operate together within grassroots conservation movements or across national contexts (Neuteleers and Engelen 2015). By integrating these perspectives, this dissertation analyzes how frames and logics of valuation intersect to shape conservation practice. Drawing on evidence from Canada, the United States, and Mexico, I show how differences in cultural context, institutional arrangements, and personal experiences give rise to distinct frames. These frames in turn inform the process of valuation and the conservation strategies that different stakeholders pursue within the transnational conservation movement. My approach underscores that conservation is not only a biological or technical challenge, but also a social process structured by meaning-making and value construction.

The Monarch across North America

The Monarch butterfly and its transnational migration make a particularly compelling case study for exploring the valuation of nature across varying cultural, legal, economic, and environmental movement settings. In the mid-2010s, the wintering population had reached an all-time and precarious low in the oyamel fir forests in Central Mexico's trans-volcanic mountain range. As measured in the winter of 2014, nesting Monarchs covered less than one hectare of these high-altitude conifer forests in the trans volcanic mountain ranges of central Mexico (Semmens et al 2016). Whereas in the early 1990s, nesting Monarchs covered 50 square hectares of those same mountains. The Monarch population has since rebounded slightly, but it remains precarious and in need of continued conservation efforts and enhanced protection (Semmens et al 2016). Because the monarchs migrate across the North American continent, conservation efforts must also span Canada, the United States, and Mexico. Below, I describe briefly the habitat, movement, and governmental landscape in each country.

Canada

Although Canada contains only a small portion of the Monarch Butterfly's migratory route, it plays a vital role as a northern breeding ground. Monarchs typically arrive in southern Ontario, Quebec, and parts of the prairie provinces in late spring and summer, where they breed before beginning their southward migration. Compared to the United States and Mexico, the Canadian conservation movement remains smaller in scale, with fewer organizational actors and less public engagement.

Canadian conservation efforts emphasize habitat protection, scientific monitoring, and financial support for initiatives abroad, particularly in Mexico. Federal agencies such as

Environment and Climate Change Canada (ECCC) and NGOs like the David Suzuki Foundation lead pollinator protection planning at local and provincial levels, restore milkweed and prairie flowers along highways, and manage protected areas. Educational and citizen science initiatives, such as butterfly tagging and school garden programs, often operate through partnerships with U.S.-based or binational organizations.

Canadian stakeholders frequently frame the Monarch as part of a broader focus on biodiversity and pollinator health, linking conservation to national climate strategies and international cooperation. Financial, symbolic, and other instrumental support for Monarch habitat restoration in Mexico is often framed as a responsibility to global biodiversity, reinforced through participation in agreements such as the Commission for Environmental Cooperation (CEC) and the North American Pollinator Protection Campaign (NAPPC). While smaller than its counterparts in the United States and Mexico, Canada's contributions in transnational funding, data collection, and habitat preservation remain essential to multinational collaboration.

Mexico

Mexico's Monarch conservation movement brings together a wide range of actors, including federal agencies, conservation organizations, rural communal land-owning communities, and the tourism sector. Although Mexico generally has weak enforcement structures for legal endangered species protection (WWF 2012), international pressure and advocacy by national elites have led the federal government to adopt strong protections for the Monarch, some issued by presidential decree (Presidencia de la Republica 1980; 2000).The species has received varying degrees of government attention since 1980, when initial protections were decreed. In 2008, UNESCO declared the

expanded Monarch Biosphere Reserve in the states of Mexico and Michoacán a World Heritage Site for the uniqueness and protection of its annual migration (Strahm and Rao 2011). At the time, logging posed a serious threat, but since 2011, UNESCO and other international observers have often praised Mexico for successful preservation and reforestation efforts.

Because most of Mexico's Monarch sanctuaries remain open to the public, tourism has become an important tool for rural economic development in otherwise impoverished agricultural communities. Political elites and internationally funded NGOs drive much of the conservation activity, often claiming to work in partnership with local rural communities. Based on what I saw in Mexico, these communities frequently carry out on-the-ground protection measures, sometimes at significant economic sacrifice, since conservation restricts land development and demands their labor to prevent illegal logging. The Monarch holds deep cultural significance in Mexico, playing a sacred role in the holiday of Día de los Muertos. Many families believe the returning butterflies carry the souls of deceased loved ones, arriving each year to join the annual celebrations from October 31 to November 2 (Perez Ruiz 2014). This cultural connection strengthens public support for conservation and underscores the butterfly's symbolic as well as ecological value.

United States

In the United States, a broad array of actors, including grassroots movements, conservation NGOs, and commercial stakeholders, participate in Monarch conservation efforts. The U.S. has a strong legal framework for endangered species protection through the Endangered Species Act of 1973, yet federal authorities typically delay listing a

species until extinction risk is extreme. The Monarch currently has no federal protection. In 2014, three organizations jointly petitioned for the Monarch to be listed as threatened, prompting a U.S. Fish and Wildlife Service review. Although such reviews usually conclude within a year, the Monarch's status remains undecided more than a decade later, despite mounting evidence of migration decline.

U.S. conservation strategies often target the sharp drop in milkweed availability that has occurred in the past 30 years. For example, milkweed declined by 21 percent between 1995 and 2013 (Semmens et al. 2014), largely due to herbicide use in Midwestern agriculture. In the absence of federal action, many states have partnered with NGOs to plant millions of milkweed plants along interstate highways, providing nectar and breeding habitat for migrating Monarchs (National Wildlife Federation 2017).

The movement in the United States is divided over the best path forward, reflecting uncertainty over regulatory outcomes and conservation priorities. While the general public has fewer cultural ties to the Monarch than in Mexico, awareness is growing, as evidenced in the number of mass media articles written on the topic and the work of many grassroots organizations (Journey North 1997-2025). Increasingly, communities host festivals and public events celebrating Monarchs and other pollinators during migration season, contributing to grassroots engagement alongside scientific and policy-based initiatives. The U.S. case offers a view of a movement operating within a strong (ESA). but inconsistently applied legal framework.

Research Questions

This project is guided by three interrelated research questions that explore how meaning and value shape conservation practice across North America.

First, what role do frames play in shaping how people value and relate to the Monarch Butterfly? I draw on Goffman's frame analysis (1974), defining frames as socially shared and culturally embedded structures that shape how individuals perceive, define, and give meaning to interactions. I examine how individuals and groups construct and communicate meaning through interpretive frames, and how these frames influence valuation and action. I explore the frames that individuals in this movement use to explain their experiences and choices to understand the overarching frames that provide insight into the patterns that may exist in the social construction of nature among participants. In exploring these frames, I seek to better understand not only the frames themselves, but their use.

Second, how do individual experiences and social contexts via frames affect the valuation of nature in the case of the Monarch Butterfly? Previous research shows that factors such as class status and individual interactions with nature shape how people value nature (Martinz-Alier and Bowerbank 2004, Jerolmack 2013, Grazian 2015). In addition, governmental institutions play an important role in structuring social contexts and shaping the process of valuation at the individual and institutional levels, by providing both tools and boundaries for engaging in the construction of value (Fourcade 2012; Scholte et al 2015). The particular laws and structures of each government, as well as the political will to enforce those laws, can impact valuation and the conservation activities born, at least in part, of that valuation.

The valuation of nature has been explored extensively in the marketplace (Heuts and Mol 2013). Fewer studies have considered valuation in the context of a social or environmental movement, which makes this project particularly important (Kjellberg et al. 2013). Kruger and Reinhart's (2017) building blocks provide a foundation for inquiry into the study of valuation, and serve as a strong foundation for further and more extensive research and theory building into the social construction of value. These building blocks and their formation in the valuation process affect the fate of the particular good being valued, as suggested by Neuteleers and Engelen (2015).

Third, how do differences in framing and valuation impact conservation choices, specifically how do they produce possibilities for collaboration or conflict within the conservation movement? Inspired by valuation theory's emphasis on contextually embedded meanings (Fourcade 2011; Neuteleers and Engelen 2015), I examine how competing frames and valuation logics align or clash, shaping the potential for cooperation among diverse actors. This research thus bridges valuation theory and frame analysis to provide a more nuanced understanding of how conservation emerges not only from ecological imperatives, but also from the socially constructed meanings people assign to nature. This dual focus on valuation and framing enables a more nuanced understanding of how conservation emerges not only from ecological imperatives, but from the meanings people assign to species and ecosystems. The Monarch Butterfly's ecological and symbolic significance, combined with its international migration, make it an ideal case for examining how value is constructed, communicated, and enacted in transnational conservation.

Literature Review

The three research questions in this study call for an approach that can explain both how people make sense of the Monarch Butterfly and how their social and cultural contexts shape those views. These are foundationally questions about the social construction of nature. Greider & Garkovich (1994) is one of the foundational pieces in environmental sociology that argues landscape is not just physical space, but a socially constructed "symbol of human identity and values." Subsequent work has shown how natural environments are understood through social, political, and cultural frameworks, for example: Espeland (1998) on water disputes and Angelo and Jerolmack (2012) on nature as a mirror of social life. As Hacking (1999) argues, however, claims about social construction can vary in strength and focus, ranging from historical accounts that reveal contingency to more critical arguments that challenge taken-for-granted assumptions and power relations. The social construction of nature is a broad field of study, but often employs the concept of framing to explain the process by which different groups develop a coherent and cohesive understanding of nature and natural phenomena. This emphasis on how meanings are constructed aligns with what Hacking identifies as external explanations, those that situate stability in social and political contexts rather than purely in the internal content of nature or science. Recent work by Scoville (2024) extends this logic by arguing that sociological explanations must also situate meaning-making within ecological realities. He critiques the longstanding separation between economic sociology and environmental sociology and calls for analytical frameworks that recognize the mutual shaping of social, economic, and ecological systems. This view reinforces my approach by grounding the social construction of nature in both material and institutional

contexts. As Benford (1993, 1997) and Brummans et al. (2008) demonstrate, frames are central tools in how social movements define problems, articulate solutions, and legitimate strategies. In environmental contexts, scholars such as Čapek (2012) and Lakoff (2010) have shown that framing not only organizes discourse but also reshapes practices and policies.

Frame Analysis

Frame analysis, first introduced by Goffman (1974), examines the interpretive "frames" people use to understand their experiences, explain why an issue matters, and decide what actions to take. Frames act as mental and cultural structures that provide explanations for what is happening in a given interaction. In social movements, frames influence not only how participants talk about an issue, but also how they mobilize others, form alliances, and justify their strategies (Snow et al. 1986; Benford and Snow 2000; Bonilla and Tiller 2020; Mendelsohn, Vijan, Card ad Budak 2024). Environmental sociologists have used frame analysis to study how individuals and groups connect personal experience, cultural values, and scientific knowledge when responding to environmental challenges (Brewster and Bell 2010; Capek 2012). Frames work by highlighting certain aspects of a situation while downplaying others, focusing on those aspects of greatest importance and meaning to the individuals in the interaction. By shaping how people define problems, identify solutions, and evaluate appropriate courses of action, they are important devices for understanding the perceptions of individuals in a given interaction. In environmental contexts, they help explain why people facing the same ecological conditions may adopt different strategies or prioritize different goals. Brewster and Bell (2010) show how group identity and lived experience shape the frames

people use to describe their relationships with species and ecosystems. Capek (2012) emphasizes that environmental values and identities are co-produced through human–nature interactions, including the development of frames that define those relationships. Farrell (2015) illustrates how sacred understandings of nature, expressed through framing, can both unify and divide environmental movements, for example in the case of wolves, he describes the pro and anti wolf actors use spiritual, moral, and cultural arguments in their framing of their position.

In conservation movements, frames not only influence beliefs but also structure relationships, alliances, and conflicts. They help determine what counts as a legitimate conservation action, who is responsible for carrying it out, and how success is measured (Brummans et al 2008; Dewulf et al 2009). Frames can operate alongside, and sometimes in tension with, valuation processes; frames provide the narratives and cultural logics that make certain forms of value more visible or legitimate than others. As Neuteleers and Engelen (2015) caution that when valuation is framed in terms of economic utility, market-based methods dominate, often at the expense of ecological and cultural valuations grounded in interdependence.

This study builds on previous literature by examining how individuals and groups engaged in Monarch conservation use frames to explain their relationships to the species, justify their actions, and negotiate collective goals. Previous literature has shown how frames organize meaning and shape movement dynamics, but often does so only at the meso and macro levels (Benford and Snow 2000). Hannigan (2024) argues that environmental sociology too often swings between grand theory and localized case studies, neglecting the kind of middle-range theorizing that bridges empirical contexts

with broader conceptual insight. My approach in this project aligns with this call by treating frames as structures that emerge from micro level empirical data, yet also generate theoretical implications about how people value nature. my study demonstrates how micro level (as opposed to macro level) framing both shapes and is shaped by the processes through which value is assigned to nature by situating frames within broader social, institutional, and ecological contexts. Scholars, such as Snow (2004) and Bartley (2007) have placed macro level frames used by national and international social movement organizations in broader contexts, which has advanced the field greatly and served as the foundation of a large body of research. While I draw on frame analysis to focus on how people interpret and talk about the Monarch, I do two things differently 1)I explore the construction of frames from the micro level up and 2) I integrate valuation which provides a pathway to help me examine how they decide what the Monarch is worth and why. Sociological research on valuation (Fourcade 2011; Heuts and Mol 2013; Kjellberg et al. 2013) treats value as something created in social interaction, shaped by institutions, and grounded in specific political and ecological contexts, rather than as a fixed or purely objective measure. Bringing frame analysis and valuation theory together makes it possible to see how the way people think about the Monarch and their relationship to it influences the value they assign to it, and how both meaning and value guide the conservation practices they choose to support.

Foundational Questions in Valuation Research

Drawing on the work of Kruger and Reinhart (2017), I define valuation as the act of attributing or assessing value in relation to things, social practices, and/or people. This act occurs through a process of meaning-making, in which people assign worth in relation to

their social, institutional, and ecological contexts. I define value as the worth, monetary or otherwise, that people assign to or construct around a given subject. Across the social sciences, theorists have largely defined value by focusing on monetary value in the marketplace (Kjellberg et al 2013). In contrast, sociologists who study value tend to focus on how people develop feelings associated with their relationship to or understanding of the subject being valued, such as nature (Fourcade 2012). To understand the process of valuing nature at both individual and collective levels, we must draw on insights from economic sociology, ecological economics, and environmental sociology. This approach aligns with calls in valuation studies for integrative and process-oriented frameworks (Kjellberg et al. 2013; Krüger and Reinhart 2017). My project aims to develop a deeper understanding of the process of valuation, as it relates to the valuing of nature in various social settings and arenas, beyond the marketplace.

Scholars, such as Doganova et al (2014) and Fourcade (2012), have approached valuation theory by asking several foundational questions: How is value assigned in different settings? Who or what constructs value, and through what mechanisms? And what are the consequences of particular valuation regimes? Each of these questions provides grounding for this study. In attempting to understand valuation, scholars have explored how the process of valuation works in market contexts and specific institutional settings. They have looked at the specific actors who take part in the process of valuation and their relative power to move specific mechanisms in the process. They have also addressed the impact of the valuation process and the constructed value for particular goods and services (Doganova et al 2014).

Economic sociologists have long critiqued how value is assigned in market and institutional settings. Although markets provide a wide variety of tools to determine the worth of goods, many theorists argue that these tools inadequately capture the true value of nature and human life. Marx (1887) and Polanyi (1944) both emphasized that land, natural resources, and human beings are not genuine commodities, and attempts to price them strip away the social relations that imbue them with meaning. Citing Marx's repugnance for allowing life to be transformed into a mere commodity, Zelizer (1978) extended this critique by showing how sacred values are undermined when they are redefined through market logics. These perspectives underscore that valuation is not just an economic process, but also a deeply social one.

Building on this foundation, scholars demonstrate how valuation is actively constructed through institutional mechanisms and social actors. Fourcade (2011), for instance, demonstrated how courts handling oil spill litigation translated ecological harm into monetary metrics, sidelining alternative frames such as sacred or ecological values. In this sense, institutions do not merely apply neutral tools; they actively shape which values "count" by privileging some logics over others. Similar dynamics are evident in Carver's (2015) work, which illustrates how institutional contexts structure the valuation of nature. Taken together, these studies reveal that valuation systems are not objective measures, but social processes embedded in political, economic, and cultural structures.

The consequences of such valuation systems are far-reaching. By relying heavily on monetary tools, institutions risk flattening the multiple meanings people attribute to species and ecosystems (Kjellberg et al. 2013; Neuteleers and Engelen 2015; Büscher and Fletcher 2020). While market-based metrics may incentivize certain kinds of protection,

they also obscure relationship-based, emotional, and symbolic meanings that are crucial to how communities actually interact with nature. More recent scholarship (Kruger and Reinhart 2017) has urged a widening of scope, suggesting that we must analyze valuation beyond strictly market models and attend to the broader social contexts in which values are constructed and contested.

Recent Trends in Valuation Research

In response to the limitations of market-based models, recent scholarship has expanded the study of valuation into new social arenas, including social movements, institutions, and everyday practices. In their inaugural issue of the interdisciplinary social science journal Valuation Studies, the editorial board lays out the state of the field (Kjellberg et al. 2013). They share their desire to move "beyond the mere observation of a plurality of valuation processes and to actively deal with their interrelations" (22) through empirically-grounded theory building, extending the study of valuation into sites of social change, including social movements, the cultural realm, and political arena. Their 2013 call to action has resulted in a few attempts at theory construction. One of these is Kruger and Reinhart's article (2017), which suggests a set of building blocks that I see as useful for moving valuation research and theory forward.

Kruger and Reinhart (2017) suggest that future theorization of valuation as a social process should include five elemental building blocks, which they find as prominent aspects of recent inquiry and analysis in the area. These building blocks include: 1) valuation practices, 2) value structures, 3) valuation infrastructure, 4) valuation situations, and 5) the reflexivity of valuation. While they outline these building blocks in their article, they offer only a cursory exploration of the role of these blocks in the construction

of value; therefore, I find it useful to map the relationships between these building blocks and the process they are embedded in (See Figure 1).

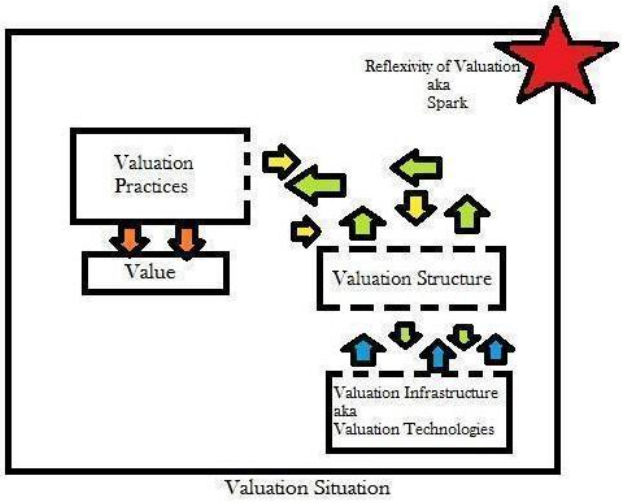

Figure 1. Krüger and Reinhart's building blocks mapped as an iterative process of valuation.

Kruger and Reinhart's (2017) building blocks provide a foundation for creating a process-oriented mode. I use this model as a guiding framework for understanding my data. Valuation practices are the actions that directly lead to the construction of value. These are the closest actions to valuation and have the potential to shape larger structures that affect the valuation of other related things. Valuation structures are the "orders of worth" (Boltanski and Thevenot 2006) that comprise the hierarchies of valuation and provide a framework for understanding that can influence the shape of the infrastructure that is available for use by actors. Valuation infrastructure includes the tools, technologies and narratives that give structure to valuation practices. These include the frames within environmental social movements that are often explored by environmental

sociologists, and create narratives for explaining many of the technologies of monetary valuation that form the valuation infrastructure. The valuation situation is the larger social context in which valuation is occurring, including time, space and social contexts. This encompasses the variety of social and institutional contexts for valuation that economic sociologists emphasize as shapers of the valuation process. Finally, the reflexivity of valuation is the "spark" that starts the valuation process. For example, when someone recognizes an issue as a social problem, this requires a valuation, or "spark," and needs to occur before any solution can be identified (Kruger and Reinhart 2014). This claims-making impetus for valuation begins the process of valuation in a social movement arena, in relation to nature; this spark is often a disaster or endangerment that requires intervention. In the case of the Eastern Monarch Butterfly, such a spark could be the record low population measured in winter 2013-14 for the broader movement or individual. At the individual level, a spark may come from a pivotal individual experience or from pushes within the social and institutional settings that the individual is embedded in.

Conservation movements reveal a tension between market-based tools, which can enable protection but also constrain it, and non-monetary meanings that stakeholders assign to nature. As Scoville (2024) observes, one outcome of integrating ecological analysis into valuation studies is the recognition that valuation infrastructures themselves, such as carbon markets or biodiversity offsets, are ecological systems as much as economic ones. This insight underscores the need to treat environmental valuations not just as metaphorically but materially embedded in the natural world. By situating these competing logics within actual conservation practice, my study shows how diverse

valuations directly shape strategies and, in turn, the futures of species and ecosystems. Scholars such as Martinez-Alier (1997; 2014) argue that poor populations often hold distinct valuation frameworks rooted in cultural, spiritual, or familial meanings, yet ecological economics has paid insufficient attention to these views. This supports the need for a plurality of valuation frameworks. Alongside valuation theorists, ecological economists have developed tools to quantify the value of nature, often emphasizing the costs of environmental damage and the benefits of preservation (De Mendonça, Sachsida, and Loureiro 2003; Richardson and Loomis 2009; Neuteleers and Engelen 2015; Scholte, Van Teeffelen, and Verburg 2015; Bartkowski, Lienhoop, and Hansjürgens 2015). For example, economists have developed mathematical formulas that account for the value of lost ecosystems in the wake of technological disasters like oil spills, nuclear radiation leaks and others. Often particular institutions construct tools and technologies for the valuation of nature to justify the costs of conservation (Bartkowski, Lienhoop and Hansjurgens 2015; Scholte, Teeffelen, and Verburg 2015). Some examples of these tools and technologies include fines for violations of environmental protection laws (Eagle and Betters 1998), carbon taxes and offsets (Lohmann 2009), and financing plans for the conservation management of public lands (De Mendonça, Sachsida, and Loureiro 2003). While monetary valuation tools can incentivize protection, scholars caution that overreliance on such mechanisms risks flattening the multiple meanings and values attributed to species and ecosystems (Neuteleers and Engelen 2015; Büscher and Fletcher 2020). Some scholars have found that engaging in such a calculation can be detrimental to the long-term conservation of a given ecosystem (Neuteleers and Engelen 2015). The value or worth that people see in a given species often shapes conservation efforts and the

kinds of protection provided for the species (Eagle and Betters 1998). As Neuteleers and Engelen (2015) explain, singular monetary valuations of nature are insufficient for encapsulating the multitude of non-monetary values that people place on nature. Understanding the valuation perspectives of a diverse range of stakeholders is important for effective conservation efforts.

Environmental sociologists demonstrate that understandings of nature are shaped by personal and group-level experiences and meanings, which can be extended into the social construction of value and orders of worth. Angelo (2013), Jerolmack (2013), and Grazian (2012) show how proximity and interaction with nature influence valuation, identity, and symbolic meaning. Capek (2012) emphasizes the co-production of environmental values and identities through human-nature interaction, including the construction of frames for understanding. Brewster and Bell (2010) argue that group identity and lived experience shape how people frame their relationships with species and ecosystems. Social movements also shape valuation processes; Farrell (2015) shows how group identity and sacred understandings of nature can lead to internal movement conflict. Scholars note that international conservation agendas may conflict with local understandings and uses of nature (Roberts and Thanos 2003; Moog Rodrigues 2004). These studies support a view of valuation as both culturally mediated and politically contested, with implications for how conservation work is organized and justified. I build on this literature by linking human-nature interactions and frames with valuation and the impact of that valuation.

Gaps in the Literature and This Project's Contribution

Despite agreement across disciplines that social context shapes valuation, most empirical studies limit their scope to economic or state institutions (Fourcade 2011; Kjellberg et al. 2013). This project expands that lens by exploring valuation processes across multiple social spheres and examining how these processes unfold in transnational and community-based conservation efforts (Martinez-Alier 2014; Capek 2012). Most notably, this project brings together valuation theory and frame analysis to examine how individuals and groups construct, negotiate, and act upon competing understandings of nature and conservation (Krüger and Reinhart 2017; Goffman 1974). In doing so, it advances an approach that highlights the performative and situated nature of valuation across social and ecological contexts (Lamont 2012; Büscher and Fletcher 2020). Secondarily, my project builds on calls within environmental sociology for middle-range theorizing that highlights how social constructions shape environmental action (Hannigan 2024).

By integrating Krüger and Reinhart's (2017) building blocks of valuation with Goffmanian frame analysis, this project creates a methodological bridge across economic, sociological, and ecological frameworks, offering a richer account of how meaning-making practices influence conservation strategies (Angelo and Jerolmack 2012; Boltanski and Thévenot 2006). It contributes to growing interdisciplinary efforts to theorize value beyond markets and demonstrates the importance of valuation as a dynamic, culturally embedded process that informs collaboration and conflict in environmental action (Neuteleers and Engelen 2015; Brewster and Bell 2010). These findings suggest new directions for valuation studies, particularly in social movement and

environmental sociology, by revealing how relationally and culturally specific frames of valuation shape practical conservation choices (Farrell 2015; Grazian 2015).

Chapter 2-Methods

Comparative Case Study Framework

In this dissertation project, I use a comparative case study framework to explore how different social groups use distinct interpretive frames to construct value for the Monarch Butterfly. Participants in Canada, the United States, and Mexico all shared the goal of conserving the Monarch. However, they differed in their institutional roles, organizational affiliations, and everyday practices. Instead of comparing nations directly, I examine how individuals across contexts cluster into three frame groups defined by shared patterns of valuation and meaning-making. National context remains important, but analytical categories were defined by interpretive frames that transcended borders and institutional boundaries. Drawing on Goffman's frame analysis, I treated these frame groups as empirically emergent structures that guided how individuals defined the Monarch's value, justified conservation actions, and interacted with one another.

Comparative case study methods are particularly well suited for this inquiry because they balance the in-depth, qualitative insights of single-case studies with the ability to discern broader patterns across cases (Ragin 1987; Yin 1994; Campbell 2012). The comparative case study approach pays close attention to the relationships among cases, the contexts in which they occur, and the processes that shape them, making them ideal for both theory-building and extending the existing theoretical frameworks. In this study, each participant represents an individual case that is nested within one of three broader interpretive frame groups. This nested design enables attention to both micro-level individual experiences and the meso- and macro-level contexts in which frames are built and valuation occurs.

Following Small's (2009) logic of theoretical replication, I treated each interview as an opportunity to refine emerging insights and to analyze how valuation processes varied across social, ecological, and institutional contexts. He argues that the rigor of case-based qualitative research depends less on sample size than on whether cases are selected, justified, and analyzed in a way that advances clear findings.

Methodologically, this approach contributes to demonstrating the utility of frame-based comparison as an alternative to geographic or sector-based designs. It highlights how shared interpretive structures, rather than national boundaries, shape conservation practice. Through this framework, I examine how diverse stakeholders, situated in different contexts, construct meaning and value for the Monarch. This not only reveals variation in strategies and justifications but also points to broader theoretical patterns in the valuation of nature.

Data Collection

I employed purposive and snowball sampling to identify participants involved in Monarch conservation efforts across North America. This approach facilitated access to a diverse set of actors, including scientists, park rangers, local land owners, NGO staff, and hobbyists. Snowball sampling is particularly well suited for reaching interconnected yet diffuse populations and is commonly used in qualitative research for constructing emergent typologies (Babbie 2016). This sampling method in practice meant approaching potential participants in sanctuaries, small communities, and informal settings, as well as through online forums and professional networks. Sometimes it involved me showing up at a Monarch sanctuary and asking about folks' interest in being participants, or walking over to breakfast at a B&B in a small village to learn that the visitors at the next table

were activists in their midwestern town who had worked with the town council to adopt new mowing policies to protect pollinators and that they were very excited to share their stories. On other occasions, I recruited participants via online forums focused on Monarch conservation or listservs run by Monarch researchers at a large land grant university. Often these participants connected me with other experts and leaders in their social groups and communities. Between Summer 2017 and Spring 2020, I interviewed 62 people in the three countries. These recruitment methods enabled me to have valuable conversations with diverse participants and build a comparative dataset that reflects the heterogeneity of the conservation movement.

Below is a timeline for data collection and analysis activities, followed by a narrative summary. I had initially planned on doing a content analysis as a component of the project, but found that it simply provided good context for asking the right questions of participants and did not add much insight that I could not glean from my interviews. I began preliminary data collection in 2017 and continued to interview participants through early 2020.

Timeline for Research Activities					
Activities	**2017**	**2018**	**2019**	**2020**	**2021**
Gather Textual Data	X				
Analyze Textual Data	X	X			
Observations in MX	X	X			
Interviews with participants in MX	X	X	X		
Analysis of field notes and Interviews Data-MX		X	X	X	
Observations in US	X	X			
Interviews with conservation participants-US		X	X	X	
Interviews with conservation participants-CA		X	X	X	
Analysis of field notes and interview data-US & CA			X	X	X
Write interview and observational findings			X	X	X

Figure 3.

Interviews

In Mexico, I conducted interviews with representatives of governmental, market-based, and social movement organizations, as well as ejidatarios and others who work in the sanctuaries and habitat conservation in Mexico. In the US and Canada, I interviewed similar types of participants, as well as hobbyists who engaged in Monarch breeding at home. Across countries, in light of Styhre's (2013) findings that leaders have some influence on valuation processes while mid-level bureaucrats are typically responsible for resource distribution, I tried to include representatives from all levels in my interviews. It was often much easier to get interviews with individuals in the local and regional levels than those in the executive leadership positions. Therefore, notable stakeholders who I

was unable to interview include representatives of agro-chemical businesses that provide grants and other funding for Monarch and pollinator conservation projects.

In recruiting participants, I started with the list of organizations identified in an early content analysis, that was ultimately set aside, and used these organizations' websites and printed materials to identify potential participants. Given the knowledge I gained about the organizations from that initial review, I was able to focus on actors' perceptions and frames in the interviews, instead of trying to understand the organization's basic goals or structure. I relied on snowball sampling to identify additional potential participants beyond those identified in the initial phase. This method is particularly useful for accessing hard-to-reach or specialized populations (Babbie 2016), such as the small rural farmers and community members in Mexico who participate in this work, or the small town activists spread across the plains of the US and Canada. A subset of interviewees had strong ties to multiple countries, largely due to the fact that Canada, the United States, and Mexico are neighbors and people migrate between them. Throughout this dissertation, I refer to participants in terms of the country that they have the strongest ties to in the movement, but it is important to note that there is a high degree of interaction across national lines.

Across all countries, I conducted interviews until I began to see sufficiently consistent patterns and achieved saturation around key themes and perspectives. In total, I conducted 54 interviews with 62 people, as some folks chose to be interviewed with their colleagues, fellow landowners and/or spouses. In Mexico, several small groups of participants chose to be interviewed in a group. These participants were often close friends or relatives. I conducted interviews in Spanish and English (based on the

preference of the participant) in the Mexican states of Mexico and Michoacán between November 2017 and January 2018. In total, I interviewed 38 people with strong ties to Mexico. I interviewed representatives of market-based organizations (e.g., tourism companies), tour guides, and representatives from social movement organizations, including activists and board members from local, national and international organizations. Additionally, I interviewed governmental representatives from state and federal governmental agencies and individuals in leadership positions in their rural communities. Interviews with tour guides and ejidal leaders tended to be shorter, lasting about 20-25 minutes. Interviews with governmental representatives and professional activists typically lasted between 1 and 1.5 hours. Most interviews took place in Michoacán, near the primary Monarch reserve, but I also interviewed governmental officials and members of ejidal communities located in the state of Mexico, outside the primary Monarch Reserve. Many of these communities were charged with protecting Monarch colonies and habitats, but they did not receive financial support or governance from the same state agency that licenses the tourism industry in the larger sanctuaries in Michoacán, such as El Rosario and Sierra Chincua. It was initially hard to connect with these communities, but I was able to get an interview with a group of community members in one village who hoped to get a license for tourism in the future. In Mexico, I went on guided tours in the five public Monarch sanctuaries, visited three conservation sites that border the Monarch biosphere, and on three occasions accompanied park rangers and community volunteers during their regular patrols of the biosphere and their ejidal and communal lands that host Monarch colonies. After my interviews, I also wrote

notes about the context of the interview and the interactions I had with the interview participant.

I conducted interviews in person and virtually in the US from Fall 2017 through Spring of 2020. In total, I interviewed 19 participants who had strong ties to the United States. I interviewed participants ranging from Monarch breeders/farmers, to extension agents, volunteers at community pollinator gardens, researchers at land grant universities, representatives of non-governmental organizations, and citizen scientists and hobbyist participants in the movement. The majority of these interviews were conducted virtually via Zoom, as most of these participants were spread across the vast central plains states. Some were conducted in-person in North Carolina. Participants in the US were largely recruited via university list-servs and social media groups, as there are very large and active communities on both. Citizen scientists/hobbyists, people employed in education efforts, and early career scientists were the most responsive to invitations for interviews, and the sample of participants reflects that. When conducting interviews in the US, I wrote short notes about the context of each interview and more extensive notes about conservation events and sites when I was able to visit them in person. I conducted interviews in person and virtually in Canada from between early 2018 and Spring 2020. I interviewed 7 participants who had strong ties to Canada. I largely interviewed representatives from citizen scientist groups and conservation organizations, as well as one researcher in Mexico who had strong ties to Canada. Because of the limited time I could spend in person in Canada, only 2 interviews with Canadian participants were conducted in person, and those were in the Greater Toronto area. With one of those, I was able to join a participant who led a community education night about Monarchs and other

pollinators for children at a local park. My son attended with me and participated with the other children in the lesson, interacting with caterpillars and releasing a few young adult Monarchs back into the wilds of suburban Toronto. While the number of participants interviewed from Canada was low compared to the US and Mexico, it is roughly proportional to the size of the movement in Canada, which is smaller than that of the other two countries.

Interviews were designed to elicit participants' experiences with Monarchs, their reasoning for conservation approaches, and the meanings they attached to the species. Interview questions (see interview guide in Appendix A) were designed to align closely with the project's central focus on framing, valuation, and approaches to conservation. Each interview began with reflective questions to elicit participants' personal histories with Monarchs and their paths into Monarch-related work. This provided insight into how individual experiences shape valuation and interpretive frames. Participants were then asked to reflect on how their views aligned with or diverged from those of their organizations, allowing for exploration of how social context and institutional affiliation influence frame construction. I asked questions about the perceived value, importance, and worth of the Monarch, including whether that value could be quantified, to uncover the reasoning behind participants' valuation practices. I probed with follow-up questions about threats to Monarch populations, organizational strategies, and inter-organizational differences. These questions enabled my analysis of how frames inform conservation strategies and produce opportunities or tensions for collaboration. I concluded interviews with a thank you and an invitation to suggest other participants within their networks,

consistent with a snowball sampling strategy designed to reach participants embedded in conservation systems across North America.

In conjunction with the NC State IRB, all interview participants received informed consent forms in their primary language (either Spanish or English). All interviews were in either English or Spanish, according to participants' preferences. As a Spanish-English bilingual, I conducted (and translated) all interviews without the aid of an interpreter. All participants were given the option of using their own name and the real name of the organization they work with, or using a pseudonym for themselves and/or their organization. I decided to make public anonymity through a pseudonym optional based on participant preference. Some participants preferred their official position to be clear and publicly available as part of the public outreach efforts of the organization they represented. However, as a result of some safety concerns that emerged during my fieldwork, I decided to represent all participants with pseudonyms in the final text.

Data Analysis

Through open coding and comparative analysis, I identified shared patterns of language, experiences, values, and conservation strategies across participants. I used NVivo software to code and analyze the interview data. I categorized all notes and transcribed interview data by participant, initially nesting them within the Canadian, U.S. or Mexican national cases, until it became clear to me that nation-state was not the ideal way to organize the data. I built a codebook around themes that had become clear during the interviews and were reinforced by my initial analysis of the data as it was transcribed. I first open coded the transcripts and notes of each participant's interview. I applied English-language codes across both English and Spanish interviews to streamline the

coding process, with individual quotes translated into English for later use in analysis and publication. This initial wave of open coding was followed by a more focused round of coding, guided by Charmaz's (2014) inductive approach to identifying and theorizing analytical codes.

After completing the initial coding, I compared and consolidated codes to create a unified codebook. Codes were developed using both inductive and deductive strategies. Some codes emerged inductively from the data, while others were generated deductively based on existing literature on valuation. Drawing on Goffman's (1974) frame analysis, I treated participant narratives as building blocks of frames, structures through which individuals organize experience and guide action. Deductive codes drawn from theory included categories such as aesthetic valuation and economic or monetary valuation. I also used codes representing framing strategies. Midway through analysis, it became evident that three distinct interpretive frames were emerging. At that point, I developed the structure of the three substantive chapters, pulling key quotes and stories from the interviews into outlines as I went from there. I identified frames inductively by analyzing how participants described their interactions with Monarchs, their feelings and understandings of those interactions, justified conservation activities, and responded to perceived threats. I looked for patterns in language use, metaphors, and narrative structure with particular attention to how participants diagnosed problems, proposed solutions, and articulated values. Through iterative coding and memo-writing, I discerned three dominant interpretive frames, each defined by distinct logics of valuation, conservation strategies, and social contexts. Based on these patterns, I constructed three interpretive frame groups: Nurturing Nature, Stewarding Nature and Conserving Nature. I

then recoded transcripts deductively to explore how valuation practices, infrastructures, and institutional affiliations aligned with each frame. Frame membership became the core comparative axis for this study.

Chapter 3- Constructing Nature: Building Frames that define the Relationship between Self and Nature

People do not simply take an objective view of nature by seeing, hearing, touching, tasting, or smelling it, relating with their five senses alone. Nature is much more than feeling a cool breeze on your face or hearing the rush of water as you walk down to the creek. It's also remembering the times you laughed and splashed while hunting crawdads in that creek with your cousins, and your amazement when you learned that this creek was spring-fed and what that meant.

Scholars in environmental sociology have long emphasized that nature itself is socially constructed, meaning that people interpret, value, and give significance to landscapes, species, and ecological processes through cultural symbols, social practices, and historical contexts. Greider and Garkovich (1994) argue that landscapes are not just physical spaces, but "symbols of human identity and values." Cronon (1995) shows how even seemingly objective categories like "wilderness" are shaped by cultural narratives and political struggles. More recent scholarship has extended this insight by demonstrating how constructions of nature operate through framing processes: Espeland (1998) illustrates how competing cultural frames shape conflicts over land and resources, Capek (1993, 2012) shows how activists draw on frames to link personal experience with collective narratives of responsibility and justice. Within the literature on the social construction of nature and environmental movements, frames operate as key mechanisms through which people construct and negotiate understandings of nature in their everyday lives and in social movements (Capek 1993, 2012).

People construct nature by drawing on their social contexts, experiences, and relationships, using those to build the frames that serve as the lens through which they understand their experiences with and relationships to nature. There are two main types of frames: natural and social. Natural frames are understandings of the natural world that are independent of human interaction (Goffman 1974:22). In contrast, people create social frames (Goffman 1974:23) based on their social contexts, identities, and experiences. These shape people's views of nature and their relationships with it, giving meaning to otherwise meaningless aspects of a scene. Natural frames are understandings of things that occur without human guidance, such as the sun rising, while social frames include human interactions with the physical world and the understandings that guide those actions (Goffman 1974:22).

Across Canada, the United States, and Mexico, participants viewed the Monarch through both social and natural frames, often blending these into a primary frame that treated nature as both agent and object (Capek 2012). Many described reciprocal relationships with nature, working cooperatively to meet needs of conservation and sustenance.

In this chapter, I analyze three frames that crystallized these perspectives: Nurturing Nature, Stewarding Nature, and Conserving Nature. Each reflects how stakeholders understood their relationship with nature and generally aligned with particular groups: hobbyists and citizen scientists in the U.S. and Canada (Nurturing), Community members and landowners mostly in Mexico (Stewarding), and scientists and professionals across all three countries (Conserving). These frames emerged from shared experiences and roles within social contexts, representing the most common understandings among the diverse participants I interviewed.

Frame Analysis

In this chapter, I use frame analysis to show how people involved in the Monarch conservation movement in the US, Canada and Mexico understood their relationships and interactions with Monarch Butterflies, nature, and one another. I apply Goffman's process of frame analysis (1974) to analyze how frames are constructed by participants. This process takes into account the individual participant's experiences in constructing an understanding of their micro-level interactions.

Goffman (1974) defined frames as cultural structures that organize how people interpret social interactions. frames do not constitute social life itself; rather, they shape perceptions, narratives, and meanings. constructing a frame involves drawing on experiences, cultural interpretations, and institutional discourses to define what is happening and how to act. Because they are reinforced, contested, and adapted through interaction, frames are dynamic. More than cognitive tools, frames are relational and narrative processes that help individuals situate themselves in the social world while remaining flexible enough to incorporate new experiences. As Oliver and Johnston (2000) argue, frames operate in close relationship with broader ideologies, drawing on shared cultural narratives while retaining enough flexibility to be adapted and contested in everyday interactions.

Goffman developed frame analysis to make sense of individual micro-level experiences. He argued that because meso- and macro-level social contexts shape frames, people often share similar cultural narratives for understanding their experiences. Goffman focused primarily on how people used frames to make sense of their lived experiences. Scholars have used Goffman's frame analysis to study daily micro-level social interactions, meso-

level organizational studies, and macro-level social movement strategies, among others. Early framing scholarship in social movements (Snow, Rochford, Worden, and Beford 1986; Benford & Snow 2000) often emphasized strategic and organizational top-down uses of frames, sometimes reifying them into fixed "collective action frames." Sociologists have employed macro-level frame analysis to explore how social movements interpret political opportunities, mobilize resources, and construct shared understandings that drive collective action in broader cultural and structural contexts (Snow et al. 1986; Gamson 1992; Snow & Benford 2000). As Caiani (2023) explains in their review of the literature, sociologists have mainly used frame analysis to examine macro and meso level framing within progressive social movements. For example, Benton and Snow (2000) use frame analysis to explore how social movement organizations deploy mass communications and public messages to draw support for their causes and affect social change. They show how messages are strategically deployed, building off broader cultural narratives to pull resources and broad public support to a movement or to achieve particular goals of a movement. Similarly, Capek (2012) finds that within environmental sociology, frame analysis is used to study the approaches that environmental and conservation organizations take when interacting with the public through mass media.

In summary, many sociologists who use frame analysis focus to explore how stakeholders construct a group identity to build public support for the movement. As Caiani (2023) notes, few sociologists have used frame analysis to look at social movements at the micro level, to examine individuals' interactions in a movement or with the object of their activism. Less is known about how individuals frame their relationships to nature in environmental movements. Brewster and Bell (2010) are an

exception, along with Capek (2012). Brewster and Bell (2010) draw on Goffman's work to show how environmental activists construct their relationships with nature through identity work and framing, emphasizing the ways they interpret and (re)define nature as a moral and cultural resource. They use frame analysis to explore how people understand their interactions with nature in parks and common spaces. For example, Brewster and Bell describe how people used the 'Out in Nature' frame to distinguish their interactions in the city and in natural spaces. Capek (2012) extends this focus by examining how activists' personal experiences and broader cultural narratives intersect, highlighting how notions of belonging, responsibility, and justice shape the ways people in environmental movements connect with and act on behalf of the natural world.

micro-level frame analysis can be used to examine how social contexts influence people's individual and group-level understandings of nature. This contribution is helpful to building upon and expanding the current literature, as environmental sociologists have thoroughly explored macro frame analysis as an analytical approach , but there is still much less focus at the micro level (Brewster and Puddephatt 2017). Previous research on framing from an organizational or political perspective often fails to capture how cultural values and personal experiences shape the frames people use to interpret their relationships and interactions. Instead, macro-level analyses tend to look at how frames serve a political or organizational end. In contrast, micro level analyses focus on how individuals attribute meaning to their actions and those around them in their particular social context. A micro-level frame can be an analytic unit for exploring how the people within a conservation movement interact with the species of focus and with each other, not as part of a group, but based on their individual experiences and social contexts.

In this chapter, I use Goffman's frame analysis to explore people's perceptions of their relationship to nature, the Monarch Butterfly, and others in the movement. I use micro-level frame analysis to examine how primary frames shape individuals' valuations, actions, and interactions within the broader movement. Each frame answers the question, "What is happening here?" in terms of the interactions between participants, Monarch butterflies, and their broader social connections.

Findings

Below, I describe the three primary frames that emerged in my analysis: Nurturing Nature, Conserving Nature, and Stewarding Nature. The interview guide included questions about the person's personal history, organizational involvement, conservation strategies, and perceived threats. These interviews revealed distinct value orientations, which served as the foundation for constructing the three frame types. Within the sample of participants across the three nations, there were consistent themes and diversity that held up well across the three nations.

Every participant used one or more of three frames to explain their relationships with the Monarch Butterfly and their participation in the movement to protect it. The Nurturing Nature and Stewarding Nature frames were used mainly by people in specific geographical regions: the United States (and Canada), and Mexico, respectively. The Conserving Nature frame was used mainly by people in a specific occupational group: scientists and conservation professionals. Most participants only used one of the frames. A handful of people utilized more than one frame to describe their work and interactions with others in the movement. There were no participants who did not utilize at least one

of the three frame categories in their explanation of their relationship to or interactions with the Monarch.

The three frames provide a way of seeing and understanding the Monarch Butterfly and its relationship to humans. As Hannigan (2024) notes, developing a sociology of environmental morality through a middle-range lens is critical for understanding how people construct obligations and duties toward nonhuman nature. This resonates with my findings, these frames are not only cognitive, but incorporate values such that they are also moral claims about things like responsibility, kinship, and care. Participants' personal identities, social contexts, and early experiences with the Monarch Butterfly all influenced their understanding of their relationship with the Monarch Butterfly. This in turn influenced their reasons for participating in the conservation movement, the values they ascribed to the Monarch Butterfly and the movement, and the actions that they took on the Monarch's behalf. Participants used the frames to construct and reconstruct their individual and group identities.

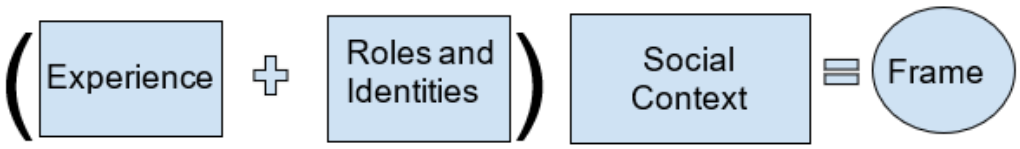

Figure 2.

Figure 2 illustrates the process. People's individual experiences and identities shaped their understanding of their relationships and interactions with the Monarch Butterfly. At the same time, their understandings were amplified by the specific social context and

community of the movement they participated in, which in turn helped solidify and reify the frame.

In the rest of this chapter, I describe the frames employed by each group. I show how each group constructed a frame that was reinforced through shared experiences and interactions. As I describe the three frames below, I refer to the participants who use these three frames as Nurturers, Stewards and Conservers. In using these titles, I am not suggesting that participants consistently recognized themselves as a member of a specific group, though I doubt that the members of these frame groups would object to the names I have selected for them. I use this naming convention because it makes the text easier to follow and more concise for the reader.

Nurturing Nature

I use the "Nurturing Nature frame" to describe hobbyists- people who cared for and protected Monarch butterflies by cultivating butterfly gardens at home and in their communities, raised Monarch caterpillars and butterflies, and educated others on the species. People who adopted the Nurturing Nature frame saw themselves as nurturers or caregivers. They aimed to protect and raise vulnerable eggs and caterpillars into grown Monarch butterflies. This allowed the butterflies to do what nature had intended for them: to reproduce and/or fly the thousands of miles south to central Mexico as part of their species' annual 5th-generation migration. Nurturers also tried to enhance the habitat in their local areas and educate others about the species and the importance of conserving Monarchs and their habitat. Participants served as a kind of adoptive parent or guardian for the tiny eggs and caterpillars who would become butterflies, as well as an advocate for the species in their communities. I call this approach the Nurturing Nature frame

because that was precisely what these participants saw themselves doing: caring for and nursing the tiny little caterpillars with fresh milkweed leaves, guarding them as they transformed in their chrysalis, and shepherding them into independent adulthood while providing them with a safe place to unfurl and dry their wings before releasing them.

The people who adopted the Nurturing Nature frame described how they cared for Monarch eggs and caterpillars after collecting them from Asclepius leaves until they could be safely released into the wild to migrate and continue the legacy of the great annual migration. In my sample, nurturers were typically White middle-class women from the US or Canada who were middle-aged or older. Most had at least a college education and a fair amount of time to dedicate to their conservation and advocacy work. They interacted with Monarch Butterflies primarily in their home and community settings, which contributed to the tenor of their actions and the intimacy of their relationships with Monarch butterflies. For example, many showed me pictures of "their" Monarchs, similar to how they might show photos of children and grandchildren to a friend. They often described their actions not as environmentalism or even conservation, but as simply caring for beautiful, tiny, and amazing creatures.

Nurturers' initial interest in the Monarch butterflies had often begun when they were children or while they were raising children. Their framing of nature emphasized the fragility of individual butterflies and the intimacy of their relationship with the butterflies, which was based on their one-on-one experiences with the species. Many participants who used the Nurturing Nature frame had adolescent or grown children. By "raising" caterpillars and releasing them as young adult butterflies, they continued practicing something they had already done or were doing with their human children. As

they talked about how they nurtured the Monarchs, they invoked a care taking role that was very familiar, but also allowed them to get new 'babies' every summer. One participant, Cary, a teacher in the Midwest, described the many dangers that Monarch caterpillars and eggs faced just in her own backyard:

“It's just amazing– and talk about educating, getting educated myself. I observe so many predators and, and bugs and wasps and the T fly. So it's such a learning experience to realize– what the Monarch has to do just to survive.”

Cary did not kill other insects or predators to protect the Monarchs. However, she did use enclosures to protect the eggs and caterpillars. She shared a long story about a time when she had seen a Monarch laying eggs. Later, when she checked the plant, she only found one egg, even though she had watched the Monarch lay at least a dozen eggs just an hour before. This had caught Cary by surprise. She felt a new sense of urgency to care for them in the face of acute dangers they faced.

Nurturers often described their experiences with Monarch Butterflies in terms of awe and childlike wonder. They were captivated by the delicate beauty of the insects and the mystery of their transnational migration. They marveled at the contrast between the fragility of a single butterfly and the remarkable resilience required to complete a multi-generational journey across an entire continent. The Nurturing Nature frame enabled participants to hold these tensions together, appreciating both the vulnerability of individual butterflies and the endurance of the species as a whole. Many were especially fascinated by the fact that Monarchs from across Canada and the United States converge in just a handful of wintering sites in central Mexico. Nancy, a Canadian Nurturer, shared

what she called an “amazing victory:” one of the butterflies she had raised and tagged was found and reported in South Texas, nearly 2,000 miles from her Ontario home, during the previous year’s migration. It was rare for a Nurturer to locate one of their butterflies in an official tagging record, and Nancy described the experience as both miraculous and deeply validating—a sign that her careful efforts to protect and nurture the tiniest caterpillars could have a lasting, continent-spanning impact.

Nurturers described their interactions with the Monarch as a close personal experience that took place in their homes, rather than an interaction with a wild animal in the wilderness. The participants who used the Nurturing Nature frame saw the Monarch butterflies they raised in their homes and patios as extensions of their family.

Nurturers strengthened their connection to the Monarch Butterfly through their intimate caregiving interactions every summer. They worried over the potential loss of the species, but were able to see concrete results of their labor as they released numerous healthy adult butterflies. These experiences reinforced the closeness they felt with the Monarchs and drove their continued participation in Monarch-related activities. The folks often gained recognition in their local communities as being able to share knowledge about the Monarch Butterfly. They called themselves "Butterfly Ladies," playing off the idea of "cat ladies." Some even collected butterfly-themed clothing and jewelry, which they wore proudly to spark conversations about the species. Nurturers described a closeness with the species that was akin to having a pet. In doing so, they connected domestic and wild realms in a unique way. For example, one participant shared how she used netted spring form containers to build little habitats for the caterpillars she cared for, because she had found that they were very ‘mischievous little cats’ and escaped her screened-in porch

otherwise. Whereas members of other movements to protect endangered species– for example, people who donate to a land conservancy fund to protect tigers– would never have the chance to pet the animal or feed it, Nurturers interacted directly with Monarchs. They held them in their hands, fed them, and cared for them, raising many of these endangered creatures from egg to adulthood.

Participants who had children at home or in close proximity to their homes (such as neighbors or grandchildren) typically involved children in the caregiving process. Many reported that caring for the Monarchs together was a learning process that had strengthened their relationship with the children. For example, Freddie, a mother who lived in the mid-Atlantic region, explained:

"So I have a son who is now 11. We've been doing it for four years, and he just has the best eye for the caterpillars, a little teeny, teeny Caterpillar spot. He has good eyes. Probably like a fun thing that I do [in] summer and … I have planted, and you know, tuck it [milkweed] into…flower borders around the house."

This family of Nurturers enjoyed finding and caring for the Monarch Butterflies who migrated along the foothills of the Appalachian Mountains where they lived. The mother explained that the activity had allowed her to spend a lot more one-on-one time with her son and strengthened their relationship by giving them a shared hobby. Similarly, other parents and grandparents discussed how caring for the caterpillars and watching them become butterflies was a bonding opportunity for them with their children. In sum, whether interacting with folks in their communities and families or online communities,

nurturers recreated and reinforced their caregiving roles through these interactions, presenting themselves as individuals who cared for others, even the smallest creatures.

Most nurturers were women, and their narratives reflected gendered understandings of caregiving and child-rearing that they extended from human children to the butterflies they cared for. One participant, John, a US-based moderator of a Monarch Conservation social media group, estimated that of the 6,500 people in the online forum that he moderated, "6,400 were women." Many scholars have documented the gendered aspects of caring for and educating children, especially with regard to environmental issues and activism (Logsdon-Conradsen and Allred 2010; Cousins 2021). For example, Adams and Shriver (2011) demonstrate how gendered identities like motherhood serve as a foundation for sustained participation and collective action in environmental movements. In line with these findings, the people who adopted the Nurturing Nature frame often tied their roles as mothers, teachers, and caregivers to their engagement with the butterflies. Lena, a mother in Texas, described how she had lacked access to the countryside as a child growing up in a big city, but was glad that her children had nature all around them. She believed that to confront the ecological challenges of their generation than she had been because they were raising Monarch Butterflies and planting pollinator gardens. Lena stated, "When we begin to generate that contact with nature and respect for animals and nature, I'm sure that my kids …. in their future will always feel a deep respect and care for any animal." She felt that this was an education that, as a mother, she should be giving her children. Another participant, Kathy, noted that although she didn't have children of her own, she regularly invited her neighbor and her little ones over to her house to see the Monarchs. She would call them when she had a Monarch about to leave

its chrysalis so that they could see it emerge, dry its wings, and emerge going to the pollinator garden they had helped her plant. Lena and other Nurturers felt a responsibility to care for nature and to educate the children in their lives about it as well. They derived a great deal of pleasure from sharing the joy they felt at raising and releasing the butterflies with the children. In contrast to some previous findings (Cousins 2021), there did not seem to be a burdensome aspect to what these participants reported in relation to their identities as parents/caregivers and their conservation participation, instead they largely described it as a joy.

In constructing this frame, participants highlighted not only their interactions with the butterflies, but also with other members of the conservation movement, especially in online forums that offered support for raising Monarchs. In these forums, participants exchanged insights on genetic anomalies, predation, and other environmental and biological challenges, while also celebrating successful releases and reinforcing shared themes of beauty, fragility, and caregiving. They also celebrated and shared any news of tracking tagged butterflies with these groups. Sue, a US-based Nurturer, shared an example of how a Facebook group had prepared her for an otherwise scary situation with a caterpillar:

“It often prepared me for something that comes up. Like the first time I saw a caterpillar that molted, I thought the dead skin was a caterpillar that had black stuff because it just looks like a deflated black caterpillar. And I literally, so I thought I lost a caterpillar, but that caterpillar had already left, at least.”

By educating one another and sharing experiences, participants felt more able to support others, such as the friend that Sue had helped improve his butterfly raising and gardening class. Participants also said that their hobby had deepened relationships with others who shared their passion for caregiving.

Through their caregiving and online interactions, participants developed strong emotional bonds with Monarchs and with one another, finding validation and support in these shared experiences. Members of these online groups frequently offered emotional support to one another when they encountered predation or common diseases that affected the butterfly population, or that directly impacted the caterpillars and butterflies they were raising. Many participants eagerly shared photos of the Monarch butterflies they raised on social media, tagging them and checking online registers to see if their tags were identified in the sanctuaries of Mexico. Although tagging programs were designed primarily for scientific research, Nurturers approached tagging as a way to stay connected to the butterflies they had raised. For many, finding a tagged butterfly in Mexico or the southern U.S. validated their caregiving efforts and deepened their sense of personal connection to the species. For Freddie and her son, it was a way of trying to keep contact with the Monarchs they had raised. Referring to her son, she shared, “When he really started to learn about them, it was fascinating. Their life cycle and how this little teeny animal can go to Mexico and never come back. But it's, you know, its successor would come back, you know, it's neat.” As a result of her son’s fascination, Freddie said, they had started tagging. “The first year, we didn't tag. And since then we have tagged and now my son does the tracking himself.” Nurturers described tagging as a way to track the butterflies they felt deeply connected to, rather than to support scientific research. This

suggests that their participation in tagging and raising the Monarchs was driven more by emotional attachment than by scientific curiosity.

While Nurturers were driven to save the species, they were even more focused on the emotional connection they developed toward the Monarchs. These relationships held significant importance for some participants. Janice, a US based Nurturer said, "Well, I have to, I have no choice. It's hard. They become like my little baby." She felt obligated to continue her caregiving activities because the butterflies held so much importance to her, and she felt such affection for them. This level of emotional connection initially surprised me, but I came to understand the profound impact of theirse practices on participants better after hearing and witnessing their time spent worrying over tiny caterpillars and their gratification of releasing healthy young adults for their migration to Mexico.

Some, but not all, of the Nurturers broadened their perspective beyond their beloved Monarch butterflies, recognizing the connection between their labor of love and larger environmental issues. They viewed their efforts as a crucial part of the broader environmentalism necessary to ensure a suitable world for the survival of these new Monarch butterflies. Sarah, a professional conservationist with over a decade of experience working with local Nurturers engaged in raising Monarch caterpillars, described the sense of responsibility she observed within this community:

“It's sort of like when someone grows a caterpillar in their house, they feel more responsible for it and they think about it when it's flying across the continent. And I feel

like since I spent a year thinking and talking and being with these creatures, that like now the responsibility is heavier."

This sense of responsibility motivated many to continue nurturing caterpillars and cultivating milkweed gardens. However, while some participants extended their responsibility to engage in environmental conservation efforts more broadly, most focused more narrowly on conservation actions within their homes and local communities. Cary, a US based Nurturer, explained her work:

"You know, I mean, look at what we're doing to our planet, you know, and you know, and so like, well how can you save it? How can you save the planet? Well, mine was Monarch awareness… So I went to my local senior citizens center because they had a place– a school preschool and they had a senior center. And I asked if I could plant a garden, which the seniors and the kids [could] get involved in… and show them what kind of plants the Monarch needed. So we'd have the special, a native garden and native to Illinois."

Connie had always had a concern for the environment, but the Monarch was local to her Midwestern community and felt like an issue where she could potentially make an impact. She created a garden at a senior center and engaged with a local school to raise awareness of Monarch Butterflies. Similarly, most Nurturers focused on community gardens and educational presentations when engaging in environmental conservation efforts outside their homes in their local communities. They actively sought out these opportunities as an extension of their nurturing activities– primarily, sharing caterpillars and milkweed plants with others so that they could have a similar experience of releasing

Monarchs for their southbound migration. Their desire was to share their love, not only with the butterflies, but also with other people in their communities. When they thought of their actions, they imagined the multitude of people across North America with whom they interacted on social media working together to save the species.

To summarize, Nurturers were largely women from the US and Canada who enjoyed caregiving activities around the Monarch Butterfly, often raising the caterpillars in their homes and gardens. They related to the species much like one would relate to a beloved pet or child. They used social media to express their relationships with the Monarchs and build relationships with other members of the movement. Likewise, they didn't see their involvement in the conservation movement as political, but as an extension of their caregiving.

Stewarding Nature

A second group of participants described a frame that I label as Stewarding Nature. Participants who adopted the "Stewarding Nature frame" saw themselves as managers and caretakers of the forest and the land. Their role was to steward the forests and natural resources to the mutual benefit of their communities and the other species that inhabited the land, including the Monarch Butterfly. Participants served as a kind of farmer or forester, cultivating a healthy habitat for the Monarch Butterflies and themselves. Stewards' role was both sacred and practical, but these roles were braided in a way that sometimes made them difficult to distinguish. The Monarch Butterflies served as sacred messengers, charismatic tourist attractions, as well as ecological bellwethers, giving Stewards a variety of reasons to support their well-being in their shared habitat.

Most Stewards were from central Mexico and had grown up in proximity to the butterflies. Their understanding of Monarchs was grounded in lifelong experiences with nature and the Monarch Butterfly in their communities, as well as in the natural and supernatural significance the species held for them. Children in these communities were aware that having the Monarch in their community impacted the jobs and work of adults in their communities, which were often connected to the land through forestry and projects such as ecotourism or replanting efforts.

These everyday interactions with the Monarch Butterfly are a distinctive feature of the Stewardship frame. Unlike the Nurturers, who developed very profound intimate relationships with the species and even individual insects, the people who used the Stewarding Nature frame didn't need to actively seek out nature or bring it into their homes to have close experiences with Monarchs. Nature was omnipresent around them; their understanding was being shaped through regular, mundane interactions and shared experiences with their kin network and community members. Stewards in Mexico could experience the Monarch Butterfly in their everyday life– while they sat on the forest floor watching the millions of butterflies covering tree trunks like new bark or streaming overhead and creating billowing black clouds.

Those utilizing the Stewarding Nature frame viewed the butterflies' arrival each fall as a reflection of their good stewardship and reciprocal relationship with the land. They focused on the impact of their land and natural resource management practices on nature, and on the Monarch Butterfly specifically. Many Stewards were farmers or engaged in agricultural or forestry activities. Their livelihoods depended on the land, and they could see how their actions and those of their neighbors had a profound impact on the land.

They had built the homes and barns in their community, cleared meadows at the lower altitudes, planted avocados trees, carved trout pools into the hillsides, and planted and tapped pines for their sticky resin. They tried to engage in good reciprocal management of the land as both a value and as a survival strategy, and when the Monarch Butterflies arrived, they celebrated another year of good stewardship.

In general, Stewards expressed that they had a responsibility to care for and cultivate the land and all its inhabitants, including the little butterflies. Ejiditarios worked together to determine reasonable limits on where valuable cash crops like avocados could be planted to avoid negative impacts on the most sensitive ecosystems at higher altitudes, where the Monarch Butterflies established their colonies. In many ejidal communities I visited, the members took turns or there were a few assigned folks who cared for a nursery (vivero) of pines, cedars, and oyamel firs to be planted at different elevations for different purposes. The pines served as a sustainable revenue source, via resin tapping, and also helped keep water in the soil at altitudes above the avocado farms. Cedars and firs– Monarchs' preferred trees for roosting– were planted at the highest altitudes. As the men in various communities shared with me their techniques for growing hearty trees, it was clear they took great pride in their work. Many stated that they were happy to 'poner su granito' or do their bit to cultivate a healthy forest and provide a home for the Monarchs to return to annually.

Participants adopting this frame described stewardship as a reciprocal relationship with nature. Many of the Stewards lived on and worked land that had been part of their family's history for generations. By stewarding this land and seeing the positive results of their labor in the annual visit of the Monarchs, as well as in the sustainable cultivation of

their crops and forestry products, Stewards continued a family tradition and lineage that was very important to them. Stewards described their traditions as a mutually beneficial relationship with the land that, despite changing social contexts, they hoped would endure across future generations. For example, Tomas and Claudio, two ejidiatarios who cultivated and managed a tree nursery, shared that they hoped that their work would benefit future generations and keep the land healthy for them. Gesturing at the large pine trees around us, Claudio stated, "This is what we desire, for our children and grandchildren, that when they are grown these trees will be grown too and help support them [with resin and other forestry products]." Many people's lives were built around the idea of living and working in reciprocity with the land.

The sense of responsibility that Stewards felt to carefully manage the land was seen clearly when an individual violated the norms of responsible stewardship. One example of a violation of these norms was engaging in tala hormiga, or very small-scale logging. The typical person who practiced this type of logging was a man with his donkey and an ax or hatchet, cutting down one or two healthy trees. The $20 USD the logger received for felling a tree would allow his family to get by for a few weeks. The official guardabosques (forest rangers employed by the government) and members of voluntary forest brigades described how the loggers would run away when they were found cutting an otherwise healthy tree. Some loggers wore masks or covered their faces to conceal their identity, even though almost no one had ever been arrested or fined for these activities. In fact, most of the guardabosques didn't have the authority to actually make an arrest. Folks knew that this was a shameful activity because thinning the forest in this way would make it less likely that a colony of Monarchs would roost there. It could also

make the area more susceptible to landslides and floods, which put the entire community at risk. The shame was enough to stop many folks from engaging in this practice, despite the poverty some faced. Others continued to engage in the practice, but made an effort to hide the fact that they were doing so. They knew that this endangered the future of the ecosystem and the possibility of a Monarch colony establishing in their community during the next winters. Established colonies could provide more lucrative employment opportunities related to tourism in the future, as well as serve as a central cultural rallying point.

Stewards saw themselves as careful cultivators and shepherds of the land and ecosystem they shared with the Monarch Butterfly. Most of the people adopting this frame worked in fields such as agriculture, forestry, ecotourism, and other occupations closely connected to the land. They lived in small rural and Indigenous communities in Mexico. They interacted with the Monarch during its annual migration to Mexico between November and March. Only a few folks from the US and Canada adopted this frame, and those who did were part of Native American communities.

Most participants who embraced the Stewarding Nature frame had grown up with Monarch Butterflies and were deeply rooted in their cultural and seasonal rhythms. This was particularly evident in communities where the butterflies played integral roles in daily life and local traditions. In these communities, the Monarch Butterfly was a natural and supernatural symbol. An example of this is the Dia de los Muertos celebrations, in which the Monarch Butterflies help to guide their ancestors' souls home for their annual visit. In the communities where the stewards lived, Catholic masses, street parades, and

regional festivals marked the importance of this annual celebration and the Monarchs' role in it.

The excitement and large celebrations around the arrival of the Monarch Butterfly in October or November were important for establishing a connection between the community and the Monarch Butterflies, but the everyday interactions that followed for the next four months of winter reinforced this connection. In the villages in the states of Mexico and Michoacán where Monarch Butterfly colonies thrived, children witnessed the butterflies descending from the mountainside to nearby creeks nearly every day as they walked to school between November to March. These same children painted butterflies on smooth river rocks as part of fundraisers to sell to tourists to raise money to improve their school's libraries and resources. Ordinary interactions like these led local children to experience Monarch Butterflies as both common and special. It was common because they were an everyday part of their environment for a third of the year, and special because they were beautiful and culturally significant in their communities, and something that not all communities enjoyed as they did.

The juxtaposition of the special and the mundane that Stewards experienced with the Monarch Butterfly was very evident in my interactions with young people. During my visit to Sierra Chinqua, I encountered a teenager who worked part-time as a guide in the sanctuary. His main responsibility was ensuring that tourists respected the boundaries and didn't disturb the fragile colony. I found him sitting just beyond the designated area, calmly whittling a stick with his pocket knife. Despite the awe-inspiring sight of a massive swarm of Monarchs swirling in a black and orange cloud just 15-20 feet above him, he barely glanced up from his activity. I was astonished by the contrast between his

nonchalant demeanor and the profound wonder evoked by the fluttering butterflies in the tourists walking along beside me. Curious about his perspective, I asked him what he thought, but he kept his head down and simply replied that it was cool. After some coaxing, I managed to engage him in a brief conversation and learned that what seemed extraordinary and captivating to me, was just an ordinary Tuesday for him. The presence of Monarch Butterflies had always been a part of his life.

Collective action was a central organizing principle of the region, which was made up of many ejidal and communal indigenous and campesino communities. The communal land owning agreements in these communities reinforced norms of reciprocity amongst neighbors and became part of the Stewarding Nature frame. These communities maintained forms of collective ownership that were passed down through generations, with considerations for both immediate and future needs. The local economy heavily relied on agricultural and forestry products, as well as other natural resources. Many men from these communities migrated to large cities in Mexico or north to the United States for work. But they typically only migrated for a season, often to fulfill a specific savings goal. Their earnings contributed to economic projects implemented by their relatives or upon their return from migratory work. Some migrant laborers would devise large-scale agricultural projects that benefited the entire ejido, extending beyond their immediate family. All Stewards expressed an awareness that no matter what they did for work, they had to consider how their work impacted the land and others in their communities and for future generations.

Reciprocity was a guiding principle behind Stewards' interactions with nature, and thus their way of framing their relationship to the Monarchs. This norm was constructed

through folks' interactions with nature in their community and reinforced through their strong Catholic and Judeo-Christian values. The majority of the members of these small communities were devoutly Catholic and often found inspiration in Biblical teachings or messages from the church. Stewards believed that by caring for nature, they could continue to derive sustenance from it and ensure that both the land and their communities flourished. The Judeo-Christian tradition describes the concept of stewardship by using an analogy of the Earth as a garden to be tended. Many farmers and foresters used this analogy to describe their work maintaining a healthy forest and mountain ecosystem. This was an analogy that I heard echoed in many rural indigenous and agricultural communities in central Mexico, where they have deeply rooted Catholic and Christian beliefs and a strong identity as farmers and foresters. I also witnessed this braiding of practical and spiritual stewardship in the way ejidal communities managed the forest by using controlled burns in some places and planting trees suited to particular areas in others. In the few church services I attended in the region, I noted that many of the priests and clergy drew on farming and gardening metaphors that resonated with the rural populations they served. They spoke to their parishioners by referring to the majesty of the mountains that surrounded them, and connected those to the miracles they read from their holy texts, tying their daily interactions with nature to scared tenants of their faith. For example, priests described practices such as controlled burns as cleansing, similar to the cleansing of the forgiveness of sin by baptism. Both in natural resource management and in faith, there was a clear understanding that no one was an island living alone in those mountains. Each individual did their part to keep the balance and the entire community collaborated as well, as a collective.

Many Stewards described their care of the land as a sacred duty that protected them from losing the beautiful Monarchs or losing their homes to natural disasters (like mudslides) and also maintained a critical water resource for the region. The region not only served as the Monarchs' migration destination, it is also a crucial watershed, feeding into the Cutzamala River and supplying water to nearly 20 million people, including a significant portion of the population of Mexico City. The critical importance of the natural resources in this region has generated support from state and federal agencies, as well as NGOs like Alternare. With the needs of millions depending on their good stewardship of resources, this responsibility is central to the way that Stewards see themselves, maintaining and improving the state of the land for the well-being of their communities and children, but also the well-being of their nation. Consequently, both the religious and secular foundations of the stewardship concept influenced the communities' understanding of their relationships with the land, nature, and even the Monarch butterflies that inhabited the high altitude pine, fir, and cedar forests surrounding them.

Women and men both shared the responsibility of caring for the land and natural resources. However, men had more power to make decisions and greater access to economic opportunities due to the traditional patriarchal structure of communal land ownership. All the women I interviewed in Mexico openly discussed how there were inequities in terms of their access to power, land and decision-making opportunities in their communities. They shared the Stewardship frame with the surrounding men, but were frustrated about not having a say in their communities and their economic and ecological development. In many of the communities where the Monarch Butterfly spends the winter, ejidal landownership is passed from father to son, and often even when

a man has no son, he will select a nephew or other younger male relative to inherit his ownership. Therefore, decisions over the use of and stewardship of ejidal lands stays in the hands of male members of the community. Even in the case of off-farm jobs, such as tour guides, that are not directly tied to landownership, ejidatarios and their designees (often sons) are given preference for these jobs. In two different communities, I met young women who had struggled to get access to official tour guide positions. The jobs often went to their less qualified male cousins and brothers, even though the women had degrees and certificates in ecotourism management and strong English skills.

Often, when men utilized this frame, the 'we' was exclusive to them and their fellow male landowners. When women invoked the Stewarding Nature frame, they included a wider community than just landowning men. They included themselves and their children. In contrast, men sometimes sought a version of sustainability that would maintain the social status quo and guarantee greater control of land and access to higher paying jobs in their community to men, and specifically Ejiditarios. For example, in one community, a group of women led horseback tours through a privately owned piece of land adjacent to a large Monarch colony. They were allowed to do this because they had an agreement with the landowner. They never crossed onto the ejidal land, where the colony was largely concentrated. Even though all the women had certificates in ecotourism from a technical college, they had not been allowed access to the official tourism trade in their community, where tours were guided by men exclusively. Only women's handicrafts were allowed as an economic contribution to the tourism trade. The men actually went so far as to call these young women 'Piratas' (pirates) and tried to scare the Monarchs away from the property line where the women and their tours viewed

the Monarch colony. Despite the discord between men and women about their economic roles, the young women spoke just as strongly as the men in their community about the steps they took to steward and protect the land, maintaining clear trails and avoiding cutting any of the forest as they led small groups of tourists to visit the colonies.

In general, Stewards described beliefs that had long been held by multiple generations living on and working the same land. These beliefs had persisted despite changes in education, expertise, and government policies. The contemporary context of ecotourism, government payment for environmental services, and the presence of international NGOs is relatively new, having only been part of the local context for a decade or two, with varying start dates for state, federal, and private programs (Probosque 2007;). Many leaders among Stewards had a degree and/or some formal training in agronomy, forestry management, and similar areas of study from state universities. This advanced training made them relatively unique within their communities, where few of the adults had completed high school before being pulled out of school and into full-time work. This advanced training also put these men in leadership roles in the ejidal communities I visited, where they often emphasized a more interventionist approach to land management. Despite these changes in expertise and government intervention, the goals and perspectives of locals were reported to me as having remained relatively steady, as folks sought to build a sustainable life for themselves and their children in their natal communities.

In conclusion, Stewards described their direct connection to the land and worked to live in reciprocity with the land. Their drive to do so comes from both a survival need and a cultural understanding of their relationship with nature, their lands, and the Monarch

Butterfly. Despite gendered inequities that limited women's access to opportunities and decision-making processes, men and women Stewards were equally invested in the frame and their relationship with nature and the Monarch Butterfly.

Conserving Nature

People who adopted the "Conserving Nature frame" saw themselves as advancing scientific knowledge related to the Monarch Butterfly, its habitat, and other pollinator species. Their perspectives were highly influenced by their professional roles as biologists, conservationists, or other scientists. Conservers focused on the application of evidence-based conservation interventions to gain public support and advocate for policy support at regional, national, and international levels. In this frame, the participants' role was an extension of their professional roles and required their specialized knowledge and skills, which often led others in the movement to seek them out for their advice and knowledge as scientists. Their shared socialization as scientists and conservation professionals provided consistency in how they described their relationship to this species and others. Conservers focused on maintaining scientific objectivity in natural processes and conservation, including the Monarch Butterfly, in order to preserve the Monarchs, their ecosystems, and pollinators more broadly. Conservers tended to have advanced degrees in the sciences and experience working with diverse species and ecosystems. Most were employed by academic and research institutions, conservation organizations, or government agencies, although some were volunteers with a scientific background who engaged in citizen science projects in relationship with NGOs or universities. Generally, Conservers were affiliated with organizations that were attempting to reverse the dangerous wave of mass extinction that was threatening and continues to threaten so

many creatures, including the Monarch Butterfly. Unlike the previous two groups, Conservers did not necessarily share a common geographic location. Most of the professionals who utilized the Conserving Nature frame saw the Monarch Butterfly and its migration patterns as a complex scientific puzzle to unravel. They expressed how this sensitive species was very difficult to conserve due to its expansive habitat. Conservers worked with Monarch Butterflies in their labs and in the field. Despite their physical proximity and the care they exhibited to the Monarchs, they kept a professional distance in their relationship to the creatures.

Many Conservers had broader professional backgrounds and ambitions, working with a range of species beyond the Monarch. These broader experiences shaped how they approached Monarch conservation. For example, Nina, a young scientist at a large university in the Midwestern US, explained that they had majored in entomology because of a broad interest in insects that had started during childhood. When a job in Monarch conservation was offered to them, they took it, and over time the Monarch conservation movement began to consume much of their personal and professional life. Similarly, other Conservers described a career trajectory of first being generally interested in nature and biology and then eventually focusing on the Monarch Butterfly. In several cases, Conservers began to focus on Monarchs because of the funding and opportunities available. Another biologist, Allie, focused on the migratory behavior of the Monarch Butterfly in order to answer a research question she had about the role of genetics in the behavior of insects. She told me, “[My advisor]... sort of suggested Monarchs because of course they have this really phenomenal, and weird behavior of this annual migration. And, for us, it's an interesting one because we know it's not a learned behavior.” Even

though Allie was interested in genetics more than Monarchs, she observed that her research on Monarchs had garnered a lot of attention from other professionals in the movement. She recognized that her research might not have achieved the same impact if she had been working with a less charismatic species.

Conservers focused on conserving nature at large, not just the Monarch Butterfly. Even though most were part of projects, grants, or organizations focused on the Monarch Butterfly, they tended to see the Monarch as a charismatic means to a larger end: conserving the broader ecosystem and pollinators generally. They hoped to accomplish this through conservation activities and environmental education. Conservers' work often stated Monarch conservation as a primary goal, but it also served broader purposes that they repeated to me again and again: to save pollinators, to minimize anthropogenic mass extinction, and to conserve as much biodiversity as possible. Jessica, a US based Conserver, explained:

"And in the end, like this is really dark. I don't think we're going to save this creature. I don't think it has a chance. With climate change, with habitat loss, with development, I don't think it has a chance. But I do think that we can save other creatures and if we develop and change an ethos on how we view the world, how we view the creatures that we share the planet with, then maybe we can save other things that have a little bit less delicate balance. They're so strong, but they're so vulnerable in so many ways."

While she felt very uncertain about the ability of the conservation movement to save the species and their migration in North America, she believed that it was worthwhile to put in maximum effort, because this species could help change people's minds and their

approach to conservation more generally. Conservers tended to share this belief that the Monarch might not be able to be saved in the long run, but that the efforts are worthwhile because support the conservation of other pollinators and serve as a valuable tool for educating the public and young people about conservation.

Cameron, a young ecologist at a university in the Midwest, is an example of the hopes that many Conservers expressed using the Monarch as a tool for environmental education. Cameron stated that his career focus was "restoring ecosystems that have been degraded by humans or harmed in some way by us to help get those back to a functioning, um, becoming healthy ecosystem." He loved Monarchs and had since a family friend had given him a caterpillar to raise as a child. The Monarch had grabbed his attention and brought him into the world of conservation and biology, which had in turn widened his vision and his goals for conservation and his career. Many Conservers hoped that Monarchs would similarly grab the attention of other children and the public, generating broad support for conservation efforts.

Sara, a conservation biologist, took this idea a step further, calling the species a "gateway bug," comparable to the 1980s and 90s concept of marijuana as a gateway drug. She believed that the Monarch as a categoryopened the door to many additional and potentially 'scarier' or less attractive bugs. Sara explained how as a charismatic species or a 'gateway bug,' the Monarch butterfly could be used to bring attention to more diverse species.

"I always call Monarchs the gateway bug. Because it's not scary, and you look at it, and you get to notice it. And you see the caterpillars; you see the changes it goes through.

And while you're looking for caterpillars you see this little fly and this little spider and this little beetle; and you're like ooh, they're pretty too, and you take pictures of them. And all of a sudden, you like all insects….So I just like all the animals. But the Monarch is already connected to schools, and it already has this amazing story."

Her description echoed what other environmental educators and professional conservationists reported in interviews: that this species was an indicator of wider insect and pollinator health and that as a conservationist she could utilize the charisma and existing networks created around the Monarch butterfly's migration to get the public interested in other less -known species as well.

Conservers in the US, Canada, and Mexico aimed to build broad support for habitat conservation efforts, recognizing the importance of collaborating with local communities, despite facing different challenges in each country. Conservers in the US and Canada interacted frequently with folks who use the Nurturing Nature frame. They thus often used Monarch education and conservation to gain support for pollinator friendly gardens and getting local support for other pollinator friendly policies like less frequent mowing of lawns and fields on public lands. Conservers in Mexico worked with landowners and others who depended directly on the land that they shared with the Monarch for their livelihoods. They developed programs that supported sustainable forestry, education, and other ways that locals could make a living off the land while protecting the ecosystem and the Monarch colonies. In all three countries, Conservers attempted to build broad appeal and support the needs of nature and local populations, as they recognized that working with local folks was the only way to make a significant impact. Long-term impact on habitat conservation. Alejandro, a Conserver who lived in Mexico, but had ties

to Canada as well, shared, “Perhaps it’s a small thing, but here we want to teach children primarily, because if a child comes to see the butterflies, they carry a concern [for the species] with them always. For us, that is amazing!” Building a board base of appeal and support is part of why in all places Conservers participated in environmental education opportunities for children, local communities, and the public.

The fame and charisma of the Monarch Butterfly led to public recognition of Conservers’ work. In contrast to other academics, whose publications are often only read by a small circle of scientists, the scientists studying the Monarch Butterfly also received attention from the public. Their focus on a charismatic species had direct benefits: a larger audience for their work, greater impact of their conservation efforts, and/or additional funds to support their projects and initiatives. Two scholars shared with me specifically that they felt that their articles on Monarchs were more likely to be published in high-impact journals than similar studies with other species. They believed that the public attention and excitement around this species drove the editorial eagerness. Alejandro, introduced above, a Conserver in Mexico who ran a small non-profit environmental education organization, cited the international attention and support he had received when founding the organization. He reported that he had visitors and supporters from China, Italy, Spain, Canada, and the United States. “Of course, we take great pride that they are taking us into consideration,” he stated. The “fame” of the Monarch also meant, however, that scientists received more criticism when their findings did not support the goals of particular stakeholders or when they proposed limiting particular conservation activities or strategies.

Conservers had a certain degree of status because of the high value that other members of the movement, including Nurturers and Stewards, attached to their professional expertise. I experienced some of this when I visited the Rosario sanctuary in Mexico. As I waited at the gate to purchase my entry tickets, I began chatting with a group of tourists from the United States. They were part of a group of retirees who had a pollinator garden at their local community center and had decided to travel to the Monarch Butterfly Sanctuaries. They had been planning the group trip for several years and were very excited to finally be in Mexico. When they found out that I was there for research, they assumed I was a biologist and began peppering me with questions. It took a few minutes before I was able to explain that I was not that kind of scientist, but by then word had spread to several of the tour guides, who were equally excited to ask me questions that hadn't been answered in their regular. Luckily, several of the tour guides found it interesting that I was hoping to interview them about their personal experiences. This experience gave me a chance to experience, in a small way, the privileged position that Conservers occupied as professional scientists in a movement where their specialized knowledge was highly valued. It also demonstrated the pressure they faced in being asked to answer all the questions that other members of the movement had about the species and its conservation.

Most Conservers recognized their power and responsibility and hoped to use it to encourage others to work on behalf of the species and other pollinators. One biologist, Liliana, described the movement as a team and said that her role was that of a cheerleader, shouting out what others needed to hear and trying to keep everyone focused on the winning goal of saving the Monarch and by extension the other species in the

ecosystems where it lives. This cheerleading role did not mean that Conservers always believed the actions of others to be the most efficacious forms of conservation, but they valued the relationships and enthusiasm of others enough to seek a balance in their communication with others. For example, Dana, a Nurturer and Conserver from Canada, shared:

We don't necessarily feel that [hand raising butterflies], that, that is very successful [for conservation], their time is better spent, creating more habitat. But, you know, there's people who love to do it, and we're not gonna tell them to stop.

She didn't see a large potential benefit to trying to get people to stop raising butterflies, and therefore didn't see the need to push back much on it. However, she shared that she tried to encourage those enthusiastic folks to start community pollinator gardens and support minimal mowing initiatives, as options to create more habitat. Like many other Conservers, she always wanted to provide encouragement to the public around conservation.

Conservers were very aware of the importance of their work for others. This was both inspiring and difficult for them. Conservers felt a great deal of pressure to produce results that were helpful, applicable and understandable to a broad audience, as they knew how much this species meant to so many people, especially Stewards and Nurturers. Allison, a researcher at a land grant institution, shared that after publishing a few papers on Monarch migration, many Nurturers had reached out to her. She reported, "I literally got emails, but closer to the publication of our paper, I would get emails being like, well, what if I raised them in my screened in porch, my, you know, like four seasons, screened

in porch." These conversations weighed on her, because she saw how much the species meant to many people. She recognized that her conservations with folks in Texas and the central plains had positively impacted her work. She stated, "There are questions that we're, that like we are now asking, that I wouldn't have thought to ask before." They strengthened Alison's sense of responsibility to continue studying the phenomenon and providing these folks with science-based guidance to improve their practices.

In summary, Conservers' understanding of their relationship with the Monarch Butterfly was rooted in their professional roles, training, and socialization as scientists and conservation professionals. This scientific training gave them a global view of conservation and shaped their broader goals. They looked beyond the Monarch Butterfly to the larger ecosystems they inhabited. They worked closely and directly with the Monarchs, but rarely expressed the types of emotional ties that other groups described. The attention that they received from other folks in the movement created opportunities in terms of attention and resources. This attention had benefits and drawbacks, in that it came with funding and a public platform, but also scrutiny and public pressure.

Conclusions

Whether participants interacted with the Monarch Butterfly in a laboratory by conducting an experiment, in the forest seeing millions of tiny creatures moving as one in the trees, or in their homes by collecting tiny eggs and caterpillars to raise, all the people in my study developed strong ties to the species as part of those interactions. Participants in the conservation movement to protect the Monarch Butterfly spanned all three countries along the migratory route. As such, they each had unique social contexts and varied ecosystems. In their varied interactions, they created and reinforced frames that provided

an understanding of their relationships to the Monarch butterflies, the movement to protect them, and more generally their orientation towards nature. In this chapter, I showed how these specific interactions led participants to develop three distinct frames for understanding their relationships with the Monarch Butterfly: Nurturing Nature, Stewarding Nature, and Conserving Nature. Nurturers viewed themselves as caretakers, guiding vulnerable creatures through adulthood and preparing them for migration and reproduction. Stewards perceived the Monarch Butterfly as both a blessing and an indicator of the impact of their labor on their land and community. Conservers focused on advancing scientific conservation efforts for diverse species and ecosystems, with the Monarch Butterfly serving as a charismatic mascot.

participants in the Monarch conservation movement were often geographically distant, especially those employing different frames. When they did interact across groups, their encounters highlighted both overlaps and differences in framing. The most common interactions were between Conservers and either Nurturers or Stewards in their home countries. The professional status of Conservers provided them a certain amount of privilege and deference from Nurturers and Stewards, who often had less scientific knowledge and training about conservation, but highly valued that knowledge and desired to learn more.

Participants across all three frame groups regularly interacted with Monarchs, but their interpretations of these interactions varied widely. Conservers didn't express the same strong personal connections as Nurturers, even when they worked directly with Monarch butterflies and engaged in similar activities to Nurturers. I attribute this at least partly to the social and physical location of these caregiving activities. Conservers worked with

Monarch Butterflies in their labs and in the field. Despite their physical proximity to and care for the Monarchs, they kept a professional distance in their relationship to the creatures. The social context of being at work and the physical environment of a laboratory or field site was much less intimate than the homes or yards of the Nurturers. The location where they engaged in caregiving activities shaped the construction of the frame.

The findings in this chapter highlight the importance of early interactions with nature, culture, identities, and interactions with others in the movement in shaping frames. These unique frames contribute to the body of knowledge by identifying factors influencing people's perception of their relationship with nature and exploring how those factors become cohesive frames shared by large groups of individuals. While several environmental sociologists (Brewster and Bell 2010; Angelo 2013; Jerolmack 2013, Farrell 2015) have shown that experiences with nature and group-level interactions play a key role in the social construction of nature few studies have examined how individuals with diverse experiences and social context relate to specific species or natural phenomena. The value of this approach is potentially very high, as it has the possibility to provide greater insight into the valuations made by various individuals in the movement, as well as providing the scaffolding to better understand how that valuation translates into particular kinds of conservation work in different places.

By exploring the frames by which each group comes to understand the Monarch, my findings not only provide a viewfinder through which the groups see the species, themselves and their world, but also the values and actions that they take. By demonstrating how diverse participants construct frames through everyday experiences,

this chapter shows how micro-level framing underpins valuation processes and lays the groundwork for understanding how these values translate into conservation strategies.

Chapter 4-Valuing Nature: How Experiences, Frames and Social Context Inform Valuation

"The Monarch Butterfly is more than just a charismatic species, it has many followers in the 3 countries, because originally in the US and Canada for all the tradition that exists around it, it was named Monarch for King William II of England and all that, for its color, it's beauty, for that and now in Mexico as well what it is for everyone and what it has generated in many senses: economic, conservation, legal, environmental education, and all of that." - Andres, Conserver

Introduction

What is the Monarch Butterfly worth? Does it have a monetary value, such as the 80 peso cost of a ticket into the Monarch Butterfly Sanctuary in El Rosario? Does it have a non-monetary value, like the excitement of children who gather in a Toronto park to watch a newly emerged butterfly take flight for the first time? Where do these values come from, and how do they influence each other? In the previous chapter, I detailed how people's personal experiences, roles, and social contexts shaped the frames they developed to understand their relationships with the Monarch Butterfly. In this chapter, I explore how different people understood the value of the Monarch Butterfly. I examine how these frames influenced the values that participants attributed to the species and their rationale behind these values. Specifically, I explore how participants constructed overlapping aesthetic values and unique environmental, economic, and social or cultural forms of worth for the Monarch Butterfly. I explain how different people produce value for the Monarch Butterfly through frames grounded in experience, emotion, and social context. I

show that aesthetic worth is widely shared, but that environmental, economic, and cultural worths diverge systematically by frame.

These patterns follow from Goffman's (1974) account of situated interpretation, Hacking's (1999) emphasis on the social stabilization of meanings, and Jasper's (2011) insight that emotions translate meanings into motivation and, here, into valuation.

Nearly all participants acknowledged the aesthetic value of Monarch Butterflies. They described the butterflies as beautiful and awe-inspiring, given their flashy orange and black wings and their journeys up and down the North American continent. This shared affective orientation around awe can be understood as part of the external scaffolding that Hacking (1999) identifies: emotional experiences, like institutional arrangements, can anchor and stabilize social constructions, giving them durability across otherwise divergent frames. However, there was variation in the other values that participants ascribed to the monarch. Moreover, their values tended to align with the frames they used to articulate their relationships with the species and nature. The frames were rooted in people's experiences, identities, and social contexts, and their valuations served as extensions of these frames. People also utilize frames to justify themselves and their actions to themselves and others. For example, participants who used the Nurturing Nature frame saw themselves as the caregivers of these beautiful but fragile tiny creatures. Nurturers focused on the Monarch's aesthetic value and showed off its beauty by purchasing jewelry, themed clothing, and other goods with Monarch Butterflies printed on them. Conservers also emphasized the Monarch's aesthetic value, but framed it in terms of how the species' beauty attracted public attention and, in turn, generated support for conservation projects. Similarly to Nurturers, Stewards acknowledged the

beauty of the Monarch and held public festivals and parades, creating intricately designed costumes to look like giant butterflies. In central Mexico, many local artists and artisans also used the Monarch as a central theme in their artwork. Like Conservers, they saw the Monarch's aesthetic value as important because of the public attention it drew, allowing the Monarchs to become an economic driver in their communities and a means of conserving their ancestral lands and ways of life. In short, although individuals across Canada, the United States, and Mexico delighted in the same beautiful butterflies, they perceived that beauty as having overlapping yet distinct utility and values.

Valuation

Valuation is the act of attributing worth to things, social practices, or people (Kruger & Reinhart, 2017). In some contexts, it is strictly monetary. However, valuation extends beyond monetary considerations to include emotional, social, cultural, environmental, and other kinds of worth. For example, Zelizer (1981) details a cultural shift in in the late nineteenth and early twentieth centuries, when middle-class American parents began understanding children as emotionally priceless, rather than economically useful. This transformation was tied to broader changes in industrialization, declining child labor, rising standards of living, and new sentimental ideals of childhood, which together redefined children as objects of love and protection rather than contributors to household economies. This example underscores how value is socially constructed and can shift over time, even in contexts long assumed to be primarily economic.

When applying valuation to nature and environmental resources, economic sociologists and ecological economists have historically focused on value in the marketplace (Cefai et al., 2015; Fourcade, 2011). In contrast, environmental sociologists have concentrated on

the cultural and emotional value of interactions between people and nature (Angelo 2013; Jerolmack 2013; Hannigan 2022). Some environmental sociologists focus on processes of meaning making, including how people develop attachments and identities related to nature (Farrell 2015). Scholars show that people can interact with the same species but develop very different relationships to the species (Angelo and Jerolmack 2012). These relationships are based on the shape and purpose of their interactions, as well as their pre-existing identities and goals. My findings in the previous chapter support this conclusion, and lead to the primary research question guiding this chapter: How do socially constructed frames influence the valuation of nature?

Scholars have explored how social factors influence the value that people apply to nature (Espeland, 1998; Farrell, 2015). Martinez-Alier and Bowerbank (2004) suggest that socioeconomic status (SES), at both the individual and national levels, is one factor that shapes people's experience of and valuation of nature. They show that because working-class people in lower-income countries disproportionately suffer from environmental contamination, their environmentalism more likely comes from an instrumental need. In contrast, “luxury” environmentalists focus more on aesthetic and recreational concerns. For example, across Latin America, the movement La Via Campesina focuses on sustainable agricultural solutions that preserve the health of the land and keep the people who work it safe. As a movement by agrarian workers for agrarian workers, La Via Campesina is equally concerned with the wellbeing of workers and that of the land and ecosystems they work in. In contrast, some groups like Trout Unlimited or the Audubon Society in the US are largely supported by hobbyists and those who enjoy natural resources recreationally. While not all, nor even a majority of US based environmental

groups are made up of folks in such a privileged position, these groups do have a very different bent and view of nature than the grassroots groups that are made of working-class folks across the continent. Their members push for the creation of sanctuaries and protective legislation, but their lives or livelihoods do not depend on it. Separately, Jerolmack (2013) and Grazian (2015) emphasize that people's unique personal and group level interactions with nature inform their understanding of it and therefore their valuation. Marion Fourcade (2010, 2011, 2012), who compares the valuation of nature in the US and France, argues that the institutional and cultural contexts of both individuals and the nature they value hugely impacted the resulting monetary valuations in legal cases.

In addition to showing how social contexts shape monetary valuation, scholars demonstrate that non-monetary values of nature are deeply connected to power relations that influence long-term conservation outcomes. Group identity, prestige, and individual commitments to sacrifice for environmental protection all shape these dynamics (Espeland 1998; Farrell 2015). Espeland (1998) examined how engineers, bureaucrats, indigenous people, and others in the southwestern US interacted and negotiated use of land and water. She explored how differing values, the politics of rationality, and the seeming equality of stakeholders distorted the power relations involved.

While all of these scholars address the broad question of how diverse social contexts can impact valuations of nature, most do not explicitly or independently explore the role that frames may play in the valuation process. I argue that valuation emerges through three steps: frames converting experiences and emotions into judgments of worth (Goffman 1974; Jasper 2011), shared narratives and institutions hold those valuations in place

across settings (Hacking 1999; Fourcade 2011), and participants justify forms of worth in their interactions and the policies they advocate for (Espeland 1998). Frames provide a structure to people's understandings of their experiences and roles. It therefore stands to reason that they would also shape the valuation process. My research aims to fill this gap by examining how participants in the Monarch Butterfly Conservation Movement use distinct frames, grounded in their personal experiences and social contexts, to construct the Monarch's value. I show how frames mediate people's understanding of and actions toward the butterfly, leading to different valuations. I show how Nurturing, Stewarding, and Conserving frames activate different mixes of aesthetic, cultural, economic, and environmental worth, with emotions, serving as the affective bridge between meaning and value (Jasper 2011). Overall, this research contributes to the broader literature on environmental valuation, by exploring how frames shape the way value is socially constructed within and across diverse social contexts.

Findings

In this section, I describe how the three frame groups – Nurturers, Stewards, and Conservers– articulated the social, economic, and environmental values of the Monarch Butterfly. By analyzing the social, economic, and environmental dimensions of valuation within each frame, I show how different ways of valuing the Monarch shaped not only what the species meant to participants, but also how they acted to protect it. Nurturers valued Monarchs primarily through direct, hands-on care, emphasizing their beauty and emotional significance over economic or ecological concerns. Stewards grounded the Monarch's value in collective responsibility and reciprocity with the land, linking conservation to cultural traditions, livelihoods, and community survival. Conservers

emphasized the Monarch's symbolic and strategic power, leveraging its charisma to mobilize resources, public support, and broad ecosystem protections.

Nurturing Nature

Nurturers focused on direct, hands-on care for Monarch Butterflies. They often raised caterpillars, nurtured them through metamorphosis, and forming deep emotional attachments that drove their conservation efforts. The beauty and aesthetic value of the Monarch Butterfly was of primary importance to these participants. As Cora (44), a gardener and Monarch enthusiast, said, "It would just be a shame to lose something so beautiful." The beauty of the butterfly enhanced its value to her and motivated her actions, demonstrating that she considered the conservation of the species worth her hard work and dedication. Additionally, Nurturers attached a significant social and emotional value to the species overall and to individual Monarch Butterflies. They focused less on any economic or environmental value of the species.

"I have an emotional attachment to monarchs, um, as do I know a lot of people, um, it's not really anything that we can put any kind of value or a number on, but we just love seeing butterflies and everything in the summer. It's to me, for sure, if I couldn't see butterflies, … it would just feel not like summer without them." -Cameron

Nearly all the participants who utilized the Nurturing Nature frame expressed a strong social and emotional value related to their connection with the species. They described themselves as caregivers who shepherded caterpillars into new life, and they felt privileged to witness an amazing show of natural beauty. Nurturers described the gratification that they got from observing the Monarch's life cycles, particularly around

the emergence of the caterpillar from its chrysalis. They invited others, especially children, to observe the metamorphosis of the caterpillars into butterflies, which they described as bordering on magic. Nurturers' bonds with the Monarchs and other people in the movement contributed to the social value they constructed for the species.

Nurturers' valuation of Monarch Butterflies was related to their strong emotional attachment to the species. Other studies (Dueñas et al 2021; Daly and Morton 2009; Kurdek 2009) have shown how having a pet contributes to pro-social behaviors and the expression of emotions. While most of these studies focus on mammals with complex social behaviors (e.g., cats or dogs), Busia and Griggio (2020) argue that social bonds between humans and non-human animals emerge less from species-specific traits and more from shared experiences. This helps explain how Nurturers formed strong attachments to the butterflies during intense periods of caregiving, usually lasting about 3-4 weeks. Even though Monarchs are insects, unlike the highly social mammals featured in most pet studies, some participants attributed personality traits or gave names to the creatures. Nurturers not only formed strong emotional attachments to the Monarch Butterflies that they had raised, but more broadly to the entire species.

The emotional gratification participants derived from raising Monarchs was central to the social value that Nurturers ascribed to the species, motivating action even without monetary value. Individual interactions caring for the butterflies, and in their interactions with other Monarch Butterfly enthusiasts, amplified how participants valued the species. Freddie, a student and Monarch butterfly caregiver, said, "I think it's, it's personal gratification. Um, I don't think there's any monetary value. Um, I think it's just more like, wow, look what I helped create….It's just, it's an emotional reward." The gratification

Freddie described significantly influenced the way that participants constructed the social and emotional value of the Monarch Butterfly.

The fears and concerns Nurturers had for the wellbeing of individual creatures also amplified the value they placed on each individual creature. John, a citizen scientist who was both a Nurturer and Conserver, shared,

"It's such a fascinating and wonderful thing. And of course I love, I'm looking out the window right now while we're talking. I've seen Monarch butterflies flying to my porch all around my yard and I love that. I don't want that to go away…. and that's my emotional attachment."

His worry that the species might disappear strengthened his emotional attachment to the species and his valuation of it. For Nurturers, concern for the species intersected with concern for individual creatures. In his role as a group moderator for an online forum, John described how people in the group had, "This huge drive is an emotional drive to save every single solitary egg" due to the emotional connection they felt with the insects. Other Nurturers described going to extraordinary lengths to care for individual Monarchs, from repairing damaged wings to mourning losses from predation or disease. These experiences deepened their resolve to continue caring for Monarchs, and often led them to seek comfort and advice from online and community networks of fellow caregivers. Reports from many of the participants in my project mirrored what Busia and Griggio (2020) described as common in human-pet relationships, where a shared difficult or painful experiences could lead to the formation of a bond and increased likelihood of cooperation. The key difference in this case is that the cooperation and caregiving is one-

sided, and the bond is extended beyond a single individual Monarch Butterfly or group of Monarch Butterflies to the entire species.

The social connection that many Nurturers felt to the butterflies and each another supported their identities as members of the conservation movement and increased the value they ascribed to the species. In Facebook groups and through Instagram accounts, I often saw folks take home videos of the moment when a monarch butterfly breaks out of its chrysalis. They hoped it would unfurl its crinkled wet wings, and they would dry flat, so that it could safely begin to fly. When this process did not go as hoped, they asked other Nurturers what they might have done wrong, how they could help, and if the little creature would be permanently disfigured. While Nurturers lamented that the butterfly wouldn't be able to be released back into the wild. Sometimes, it became a companion or pet for the Nurturer's family. This sense of vulnerability and the uncertainty of outcomes seemed to increase the social and emotional value participants ascribed to each adult Monarch they successfully released. In much the same way, the endangered or threatened status of the Monarch, or at least precariousness of its transnational migration, enhanced the value of Nurturers' actions and the creatures themselves.

Most Nurturers did not articulate a clear and consistent economic value for the Monarch. However, many invested significant time and money to participate in the conservation movement. This suggests that the Monarch held a high economic value, despite their unwillingness to attach a monetary value to it. Across interviews, Nurturers consistently avoided talking about the economic value of the Monarch Butterfly, but most made personal financial investments in its conservation. This tendency among Nurturers, while different in intensity, shared a general bet with the parents of Zelizer's 'priceless'

children. For Nurturers, participating in the conservation movement was an expensive and time-consuming hobby. Nurturers typically went through a process of trial and error as they built enclosures to keep their eggs, caterpillars and chrysalises safe from predators and other environmental dangers. They shifted the timelines of their personal travel and summer vacations around the raising of these creatures. Some spent thousands of dollars on winter trips to Mexico to see the migration in action, and others searched for tagged monarchs that might be the same little creatures they had released just months before in their backyard gardens. Some participants were unable to make the trip to Mexico to see the winter sanctuaries due to the cost of international travel. Those who could not describe how they hoped to go there someway. Some planned for years to go on this trip. So even though they did not ascribe a particular economic value to the Monarch butterfly, many Nurturers made large monetary and time investments in caring for and conserving the Monarch butterfly and its habitats. One could argue that this is a kind of economic valuation, as they spent time and dollars engaging in conservation activities with the goal of saving the species and its migration.

Nurturers ascribed environmental value to the Monarch Butterfly by emphasizing its ability to capture the imagination of people and generate interest in environmental education and science. Many Nurturers were or had been educators, parents, or mentors. As such, Nurturers were very attuned to children and their interests. They understood children's curiosity and took pleasure in revisiting their own childhood wonder alongside the young people in their lives. Kathy, a retired school teacher and community garden leader, explained that she appreciated the Monarch Butterfly because it,

“Draws people to nature, especially children. It also makes them more interested in science. It's amazing to watch the kids and once you show them a few things in the butterfly house, then all of a sudden they're showing you stuff you've missed… So I just think there's, um, a very broad value in it.”

Participants like Kathy recognized how it had captured their attention and opened them up to the natural world, by bringing conservation directly to their homes, and amplifying their connection to environmental issues. They also saw how this same fascination could encourage children to learn about conservation from a young age.

Nurturers often planted butterfly gardens at local elementary schools or parks and took caterpillars or butterflies to schools for release parties. They shared their hobby with the children in their families, neighborhoods, and communities. One Canadian Nurturer, Janet, became a children’s author, creating a book for parents, teachers, and environmental educators that introduced students to the Monarch’s life cycle, migration, and home-based rearing. She filled the book with joyful photos of her own children and grandchildren raising Monarch Butterflies over thirty years. In her interview, she shared how much she loved seeing more and more children connecting with the species and learning to love it, just as hers had.

In conclusion, Nurturers viewed the Monarch as an educational catalyst that encouraged children to engage with nature in a hands-on manner. Because the Monarch Butterfly had inspired so many Nurturers to pursue conservation, they hoped it would similarly captivate the next generation and deepen collective commitments to the environment. By

fostering such learning, Nurturers underscored the Monarch's environmental value as a scientific curiosity and also a powerful entry point into broader ecological awareness.

Stewarding Nature

Stewards emphasized collective responsibility and long-term reciprocity with the land, often grounded in cultural or ancestral ties. They viewed the Monarch's well-being as inseparable from their community's livelihoods and traditions. Consequently, their valuation of the Monarch Butterfly aligned closely with how they valued the land and the cultural and practical dimensions of daily life. They consistently attributed social, economic, and environmental values to the Monarch. They recognized tangible benefits, such as tourism revenue, for their local communities, as well as less concrete benefits, such as cultural values that helped build solidarity within their communities.

Stewards assigned great cultural and religious value to the Monarch, seeing it as a symbol of their commitment to live in reciprocity with the land. Most Stewards lived and worked in ancestral communities where the Monarch Butterfly had long been part of the local ecosystem. This intimate connection shaped their valuation of the species. For example, one participant, Daniel, a Seward from Mexico, shared about the connection between the Monarch and the land:

"It's something marvelous, just being with them all the time, it motivates you. It doesn't matter if you see it flying, or they are resting, but it's something you feel that you should care for, and it pleases me to do it. Yes, because first you fall in love with the forest, and it's sad when you see a tree gone, and it makes you happy when you see a small tree

grow. All of this changes you, to live with nature, with what it gives you because it feeds you…"

For many Stewards, the land was not only home but also the source of sustenance, as agriculture and forestry anchored their livelihoods. They acknowledged the Monarch's beauty in a reverential, almost supernatural way. Some thanked God or divine providence for blessing their communities with the Monarch, while others believed the Monarch itself held divine power. For all the Stewards, the Monarchs provided a sense of connection to their land, their ancestors, and the divine, therefore creating an intangible value. This blessing was a source of economic and cultural value, but also came with responsibilities. Mateo, a young Ejiditario and tour guide, said, "We feel very proud to have the Monarch Butterfly here, because not just anyone has it." This blessing fostered cultural and economic advantages, but also entailed certain obligations. Community traditions strengthened solidarity in conserving the species and its habitat, and many Stewards reinforced their connection to the Monarch by celebrating it in annual festivals and in daily work on the land. Children learned these values early, through faith-based traditions and everyday rituals in these tightly-knit communities.

Participants noted tensions between Indigenous cultures and colonial Christian faiths, reflecting how the Monarch Butterfly figured into diverse religious and spiritual traditions, such as the Day of the Dead (Día de los Muertos). In Mexico, people believed that the tiny butterflies carried the souls of the dead or heralded the return of ancestors for annual family celebrations. The day of the Dead in Mexico mixes Catholic and Indigenous traditions to create a vibrant celebration, very different from the more mournful masses in other parts of Latin America (Martinex Gonzalez and Maza 2023).

Although the cultural value of the Monarch Butterfly was very important to folks in Mexico, Stewards in other places also described the cultural value of the Monarch. In much the same way that Central Mexican Stewards saw the Monarch's presence as an extension of their reciprocity with nature and the land, Indigenous participants in other parts of Mexico and the United States described how they cared for the land and by extension for the Monarch Butterfly. These participants described the Monarch Butterfly as a friend or companion and referred to the species as Native, like their own communities. Joanne, a Steward with ties to a Native American tribe in Oklahoma, used the phrase "native plants for native pollinators." Planting milkweed and native flowers helped the Stewards in her community connect younger generations to their ancestral lands and traditions. She illustrated this idea by explaining, "With butterfly farming, you work with nature instead of against it," aligning with her community's reciprocal, collaborative view of the land.

Across national boundaries, Stewards' actions wove past and present together, maintaining social identity and solidarity across generations. For example, by engaging youth in the stewardship of the land, elders taught them how to steward the resources of the community, building, and fostering positive memories of time spent with their elders. Eventually, the youth would celebrate these same elders as ancestors during the Dia de los Muertos along with the arrival of the butterflies. By connecting children to the habitat and lifecycle of the beautiful little butterflies, Stewards wove in stories of family members who had passed, cultural traditions, and the environmental values and orientation of the community.

The conservation of the Monarch Butterfly became a rallying point for Stewards, particularly in central Mexico. It opened access to tourism revenue, government grants, and foundation funding that supported sustainable agriculture and forestry projects. These efforts provided critical resources for communities whose traditional livelihoods had been undermined by trade agreements, climate change, and other economic shifts that reduced the market viability of their agricultural products. Conservation policies around the Monarch Butterfly functioned both as a mechanism of valuation, channeling resources into ecotourism and sustainable land management, and as a governance constraint that curtailed other forms of development, illustrating the tension between protecting ecological goods and pursuing broader economic growth. In many cases, there was a tension between the short and long term need for economic security. Although Stewards made great efforts to ensure their long term economic viability on the land, they were living with such levels of scarcity that doing so often felt like an acute, painful sacrifice.

Many Stewards' livelihoods depended on nature, including ecotourism, farming, aquaculture, pine resin harvesting, and paid conservation activities like fire brigades and planting efforts. During the winter months, between November 1 and March 1, ecotourism was a huge economic driver in the region, coinciding with the Monarchs' winter roosting and a lull in farming activities. This created critical income during an otherwise lean season. Some Stewards led tours to the Monarch colonies in their ejidal lands, while others worked in food stalls, ticket booths, or provided transportation services for tourists.

The winter tourism season enabled many migrant workers to return home, rejoin their families, and earn income locally—an invaluable opportunity for family reunification in

communities where men often left for years at a time to work in construction jobs in larger cities or in the United States. One young man, Ignacio, shared how crucial Monarch tourism was for sustaining local employment:

"Well, I believe that you have to see. Right now is the season when the Monarch Butterfly can be here as well for folks economically, because there aren't many jobs during this season otherwise. It helps me so much, me and my companions who are with me in the work. So well, the same for all of us, we try to protect the forest, so that this job doesn't come to an end. Because if the Monarch Butterfly ends, then so does our job."

Other men in the community echoed his sentiments, acknowledging that the Monarch's presence was "a blessing" economically, even though it did not fully lift them out of poverty. They remarked on how lucky they were to be able to return from construction jobs in Mexico City, Monterrey, and other large cities to their rural homes during winter. At the same time, wages in the region were typically modest compared to their earnings in the cities. Mateo, a Steward and young father, detailed, "To begin with, we decided to involve ourselves in caring for it, and at the same time we get some benefit from there, we don't make much, but we're caring for them [the butterflies], and it's a temporary job, we have 5 months of work here." The economic blessing of having Monarchs on their lands aided in the preservation of traditional Indigenous and campesino communities in this region, but it was by no means a panacea and often failed to lift families out of poverty or the need to migrate for work.

Stewards valued the Monarch Butterfly and the economic value it brought, but they often felt like their work contributions to its conservation were undervalued by others who

claimed to share their concerns. They took pride in their independent, self-sufficient identities. They were frustrated when they tried to navigate bureaucratic processes for grants or other forms of support. Since the 1980s, their forestry and agricultural economy had faced upheaval due to presidential decrees, NAFTA's economic upheavals, and falling market prices for traditional crops. While Stewards attempted to diversify through products like avocados or farmed trout fish, ecological restrictions and governmental regulations often hindered their ability to adapt. Many local landowners struggled with tight land-use restrictions and needed further economic resources to survive. Some agencies and NGOs offered small grants or economic incentives for replanting pines or adopting certain conservation practices, but these payments rarely matched the costs of labor. One ejidatario, Juan, explained:

"I believe that here we all have to do our part. Us, the government supporting some, the civil societies in part. For us, our role that I mentioned before, is the conservation and from there all the levels of government agencies have to put in their part, the civil societies have to put in their part. But I want to be very clear, we are working at 100%. We have put every, every, everything into the conservation. So, then the only thing missing is for the governmental agencies and civil societies to put in their full part."

While some families received payments for forest protection, these funds usually did not amount to a livable wage. The conservation support helped protect the watershed in the transvolcanic mountain range. The roads entering most villages which are adjacent to and/or contain Monarch Sanctuaries have signs posted that the local Ejido is a recipient of payment for environmental services and/or payments for hydrological services (see images below).

As occurs in other places, communal or Indigenous landowners in ecologically sensitive areas are often paid to implement conservation or forestry practices. In Mexico, state and federal governments supported these programs to maintain the viability of ecosystems while also promoting the economic sustainability of communities that had resided in them for generations. Globally, programs like this have had enough of an impact that the United Nations Environment Program has provided guidance to many nations on beginning and maintaining such programs (Forest Trends, The Katoomba Group, and UNEP 2008). However, in group conversations, many campesinos pointed out that payments had not increased in many years, even though the costs of gasoline, tools, and other inputs were rising. In a group conversation, one farmer shared, "Yes, we hope that they will keep supporting with some resources because of the increased costs of things here, because it's difficult to survive here in the rural countryside." Each family pieced together a patchwork of income to endure the winter, continually weighing the immediate benefit of cutting trees against the long-term ecological harm.

In sum, the Monarch Butterfly served as a source of critical tourism revenue, grants, and foundation support for communities in central Mexico, yet Stewards continued to face a delicate balance between economic survival and ecological protection. Although ecotourism filled a seasonal gap and enabled some migrant workers to reunite with their families, wages remained low. Land use restrictions, though well-intentioned, limited other forms of development for these communities. Many Stewards felt their hard work was undervalued, especially as rising costs outpaced small payments for environmental services. Their perseverance and the partial successes of conservation programs

highlighted the complexity of valuing the species and its role in sustaining traditional communities in ecologically sensitive regions.

Stewards ascribed an environmental value to the Monarch Butterfly by recognizing that it served as a bellwether for the health of the forests. Stewards also recognized that the Monarch Butterfly was a symbol that could help generate more support for conservation of the entire region. Residents of the region recognized that in order to protect the Monarch's habitat, they needed to protect the region from flooding, landslides and other disasters that periodically occurred when there were not enough trees and root systems to hold the soil on the mountainside during the rainy season. In Angangueo, one participant recalled a devastating landslide, triggered by deforestation, that buried part of the town. She described her family's harrowing experience with tears in her eyes, showing me the line on the wall marking the height where the debris and mud had been in her home. She summed up her reflection by saying that if there is no forest to shelter the Monarch Butterflies, there is no forest to protect the people and the communities in the area either, and when the spring rains come, more and more floods and mudslides would occur. By describing the importance of the saplings and ground cover planted to anchor the mountainside in future years, she explained her belief that taking care of the Monarch's habitat was also taking care of her family's safety.

Although many Stewards had not personally experienced a natural disaster like this, they were aware of how vulnerable they were if the natural world and the land were not adequately protected. They knew it took only gradual, small-scale logging (tala hormiga) to weaken the forest, make the watersheds vulnerable, and expose Monarch colonies to harsh conditions. Yet, families in dire need sometimes engaged in secretive logging,

fleeing in shame if confronted by fellow campesinos or forest rangers. This tension underscored the complexity of poverty-driven environmental damage, as well as the value of the Monarch butterfly as a reminder of the balance the community must keep with nature.

Protecting the "butterfly forests"—and by extension the surrounding forest and watershed—also helped sustain agriculture at lower elevations. In addition, it preserved forestry products such as sustainable resin tapping in areas with pine varieties that did not thrive at the higher altitudes where Monarch Butterflies preferred oyamels, firs, or cedars for roosting. During the winter, Monarch tourism brought supplementary income, linking ecological preservation and economic well-being for Stewards. Their reliance on the mountain ecosystems for water, agriculture, and livelihoods resonated with Martinez-Alier's notion of an "environmentalism of the poor," where marginalized communities protect nature partly out of necessity (2014).

Conserving Nature

Conservers approached the Monarch primarily as a charismatic species whose protection could mobilize broader conservation resources and public support, often guided by scientific, professional, or policy-oriented goals. They valued the Monarch not only as a species worth saving in its own right, but also as a potent vehicle for advancing broader conservation goals for pollinators. Many Conservers devoted their careers to environmental issues and felt grateful for the Monarch's unique capacity to capture public imagination and spur conservation efforts. Protecting Monarchs had the potential to benefit ecosystems by spurring new regulations and the investment of resources by governments and international NGOs to habitat restoration. Because the species was so

charismatic, it also transformed unassuming biologists into minor celebrities who could spread conservation messages to a wider audience. They could harness the public's fascination with the Monarch and its migration to promote conservation efforts more broadly.

Many Conservers expressed a sense of amazement over the species and the biological mechanisms that made its migration possible. In contrast to the other frame groups, they maintained a professional distance from the Monarchs, recognizing that they were using the species to garner public support for necessary conservation efforts. For example, despite the emotions that came from walking into a Monarch sanctuary, they kept a distance to do their work effectively. Allison, a biologist from the US, described her experience going with friends to see the migration in Mexico, saying, “I don't think anyone is prepared for what it actually is….I definitely had all the feelings.” When she returned to her lab, she tried to continue her work in a neutral and objective way. This distance was additionally an important emotional buffer for conservation professionals who experienced a good deal of uncertainty about their odds of successfully saving the species and its migration. They dedicated their studies and their careers to a cause they hoped would not be futile. Even if they could not save the Monarch, they found ways to attribute value and meaning to their work. For example, Donna shared, “The Monarch is like the symbol, but it could benefit many other organisms, organisms if people just had that mindset like these plants are here for a reason. This is, these are the things that live off these plants, and you know, they have a role in the ecosystem as well.” For her and for other Conservers, it was easy to find justifications for their approach, as there were so

many species and so many ecosystems in need of protection and conservation along the migratory route of the Monarch Butterfly.

Conservers were mainly scientists and professional conservationists. They valued the Monarchs in part because of the professional attention they got for their work, which included research publications and funding for conservation projects. Conservers reported that articles and projects focused on the Monarch Butterfly generated more attention than similar work connected to other species. As evidence of how enamored the public is with the species, numerous fiction and non-fiction books on the topic of Monarch Butterflies, such as Barabra Kingsolver's 2012 novel "Flight Behavior" or Wendy Williams' "The Language of Butterflies," have become NY Times Bestsellers. Scientists had been accustomed to discussing their work in relatively small academic circles, and many were initially surprised by the widespread public attention that their scientific publications on Monarchs received. The public and professional attention was largely positive, resulting in highly cited published articles, donations for conservation projects, and professional recognition. Monarch-focused articles were more likely to be accepted for publication in high impact journals like Nature, Cell, and Current Biology. However, some scientists found that their findings were not always well-received by hobbyists and citizen scientists. Some critics argued that certain findings– for example, the suggestion that raising Monarch Butterflies indoors or out of direct sunlight might impact their long term ability to navigate– were errors, because the butterflies they had raised and tagged seemed to navigated well. For example, Ally, a biologist, shared that she had received many emails from members of the public asking for advice with their local conservation activities, as well as pointed critiques of her work.

Because of its charisma, the Monarch gave Conservers an advantage in obtaining research and conservation funding. Conservers valued the species' unusual ability to attract donors, even if they did not always consider it the most interesting subject of study. Cameron, a student researcher in the US, had found that it was easier to find work related to Monarchs in the summer compared to other species. Liliana, a scientist working in a government agency in Mexico, explained that she was pleased to have gotten funding for projects focused on Monarch conservation from an economic development angle, including restoration projects, training activities, and a project. Supporting local sustainable artisanal goods with a geographic indicator. She was very pleased that their programs, although small, had had big impacts. Liliana explained, "But sometimes the budget seems like a little for us, but for others it's a lot. So the social part [of working with local communities] is very important, and we can achieve a multidimensional approach, or with a little we can do marvelous things!" When I asked her what drew her to the Monarch Butterfly, she said that she and all her colleagues had just been looking to find jobs in their field, "But we arrive, and we fall in love with the Monarch Butterfly, we fall in love." She continued, "It's like this tiny insect, that weighs just a few grams, to see it come so many kilometers to arrive here to winter, it was so much and that's how it is conserving it." She went on to share stories of moments when she found value and a calling in her work, even though it was not the work that she had always imagined herself doing.

In addition to generating additional funding opportunities, the Monarch also brought a cool factor to Conservers' work. As an example, a friend in plant biology alerted me to a Biology Department presentation at NCSU on Monarch migration, featuring a researcher

from a Midwestern land-grant university. Immediately interested, I tried to register and found that the free event was sold out. My friend confirmed this had not been the case for other presentations in the department. The public's deep investment in the species often translated into professional appreciation and greater economic stability for these conservationists as a result.

Conservers emphasized the Monarch Butterfly's environmental value, highlighting its role as a charismatic species that advances broader conservation goals. Dana said plainly, "The monarchs'-- as a species, their value is tied up in just the value of pollinators in general." She continued in the interview, highlighting the Monarch's effectiveness as a representative species for pollinators. Dana explained, "People find them fascinating, and so they're a good representative of all the pollinators. So we can focus on that one while spreading the message about them all." Other participants explained why the Monarch Butterfly was so successful in garnering public attention. One participant, Andres, shared that unlike other pollinators, the Monarch Butterfly "Can't sting you like a bee or bite you like a dragonfly" as part of the reason they are so appealing. Cora, a retiree from the Mid-Western United States, shared, "I also belong to, just recently joined, Wisconsin Butterflies and Moths Enthusiasts and enjoy learning about the moths too." The Monarch Butterflies got her interested in pollinator conservation and her enthusiasm for pollinators was growing beyond the single species, as many Conservers hope will happen!

The Monarch Butterfly opened the door to conservation for many, introducing them to a broader conception of conservation for pollinators and ecosystems. Donna explained, "I think it's valuable. That's important because it is like, it brings people into the bigger

picture. I think that once they start looking at that, then they can, they can see the bigger picture and how like the whole environment is affected or can be affected by change if they choose to make these changes." She liked to use the Monarch Butterfly in her environmental education workshops to help students zoom in and zoom out in the ecosystem and find ripple effects of contamination or conservation strategies. Similarly, some Nurturers described how their level of environmental awareness had expanded over time, starting with focusing on Monarchs and evolving to include broader concerns like prairie restoration, pollinator gardens, and No-Mow initiatives. These efforts protected other species. This broadening of perspective was a key aspect of what Conservers described as the environmental value of this miraculous little creature.

Conservers also saw Monarchs as "umbrella species," drawing attention that had benefits for other, less charismatic organisms. Liliana compared how the Monarch drew attention compared to other species:

It expands. In our case here as an institution, our work expands reach. The Monarch Butterfly is an emblematic species, this species represents the reserve, but we have a lot more equally important species here too. We have the ajolote, which is an endemic species en Sierra Chincua, it's not seen much and isn't very pretty, but it functions as an important indicator of the quality of the water here.

Here, Lilian, a Mexican biologist, explains how the Monarch's popularity contributed to the protection of the ajolote, a less charismatic species that plays a crucial role in the watersheds. By bringing public attention to the need to protect its mountain top winter home, the Monarch helped to protect the watershed more broadly. This is especially

important given that in 2024, the Cutzamala watershed was classified as being in a critical state, leading to a lack of potable water for large portions of the population of Mexico City, about 20 million people. Carolina, another Mexican Conserver, shared, "Perhaps the Monarch Butterfly has made us turn our heads and take notice that we live in a very special region [ecologically], which, although, they are limited and precarious, It's possible that we could lose them some day." As an environmentalist and environmental educator, she used the Monarch Butterfly to remind children who with no exposure to other regions likely would not know how special the ecosystem they live in is and through the children to get parents' attention and support for local conservation efforts. Nina, a Conserver from the Mid-West, shared that while she didn't see it initially, she eventually realized, "Everybody has a Monarch story and, and it's charismatic and inspiring … it started to click in my mind what the opportunity was to use Monarch as a tool for a much broader conservation effort." Whether the Monarch Butterfly was serving to grab the attention of the public or helping people understand the broader implications of human actions on ecosystems, it proved to be a valuable tool for many Conservers in their work.

In sum, Conservers valued the Monarch Butterfly less for its direct ecological role than for its symbolic and catalytic power. As a charismatic species, it drew attention, funding, and public support that extended well beyond itself, advancing conservation for pollinators, watersheds, and ecosystems across North America.

Conclusion

Across all groups, participants agreed that Monarch Butterflies were beautiful and that their epic migrations were awe-inspiring. These strong emotions were not only central to

how participants interpreted their interactions, but also shaped how they assigned value to the Monarch and its habitats. As Jasper (2011) notes, emotions often serve as the connective tissue between meaning and motivation, helping translate interpretive frames into judgments of worth and guiding subsequent action. In this way, awe, hope, and grief were constitutive of how people determined what was valuable, what was at stake, and what forms of conservation were best.

Participants diverged in the social, economic, and environmental values they attributed to the species. These contrasting valuations stemmed from their lived experiences and the frames they used to interpret their relationships with Monarchs. Participants revealed diverse yet overlapping values for the Monarch Butterfly. Nurturers prioritized the butterfly's aesthetic charm and became emotionally attached to the insects and species. Stewards grounded the butterfly's worth in ancestral and cultural ties to the land, linking its survival to their livelihoods and the maintenance of their traditional communities. Conservers valued the Monarch's public appeal as a strategic tool for advancing scientific research, securing funding, and mobilizing broad conservation initiatives. Each group's valuation reflected their unique experiences, social contexts, and priorities.

The Monarch Butterfly's ability to unify diverse stakeholders through its economic, environmental, and social significance is a testament to its value as a species and a symbol. However, the ongoing challenges faced by those who work to protect it, from poverty to land use issues and environmental degradation, underscore the need for sustained, collaborative efforts across groups. As I discuss in the next chapter, my findings highlight how socially constructed frames shape not only how people perceive and value a species, but also how they act to protect it. By demonstrating that the

Monarch Butterfly can unify stakeholders with varying motivations and resources, this study suggests that framing conservation messages around shared, but differently valued elements can foster collaboration.

By centering the diverse participants in the movement to protect the Monarch Butterfly as a case, this study demonstrates how valuation is simultaneously personal, cultural, and strategic. It shows that frames underpin other social processes, such as valuation and actively shape conservation strategies, revealing both tensions and opportunities for collaboration. In doing so, the chapter fills a gap in valuation studies by examining the micro-level frames that underpin conservation work, offering insights for both sociological theory and applied conservation practice. In the next chapter, I will extend this to show how conservation actions and strategies are mediated by these differing values and frames.

Chapter 5-Conserving Nature: how experiences, frames and social context inform conservation strategies and movement participation

This chapter analyzes how the frames and values that different groups associate with the Monarch shape the conservation strategies they pursue. Drawing on frame analysis and valuation theory, I explore how the three distinct framings of Nurturing, Stewarding, and Conserving inform divergent, yet sometimes overlapping, forms of conservation action within the movement to protect the Monarch Butterfly and its North American migration.

Even within a conservation movement, the activities that people engage in have varied effects. Some may have immediately visible, yet relatively small, effects, such as planting wildflowers that draw pollinators to an area. Other activities, such as environmental education, may take years to provide an impact and not show it so clearly, but could have a huge impact over many years by changing people's behavior. Some approaches prove much more effective than others, while others may have indirect effects or none at all. Previous research shows that such choices are rarely neutral: they are deeply shaped by frames, cultural meanings, and values (Capek 2012; Brewster and Bell 2010; Kennedy and Johnston 2019). Some activities are prioritized because they are symbolically or morally compelling (Farrell 2015), while others are adopted because they align with participants' identities, networks, or cultural understandings of nature (Tripp 2018; Espeland 1998).

In previous chapters, I examined how participants constructed frames to define their relationships with nature and the Monarch Butterfly and then how those frames informed

their valuation logic. Here, I analyze how those frames and valuations shape the conservation strategies people pursue and how they collaborate, or come into conflict, across frames. By examining what motivates individual and collective actions within this movement, we can uncover deeper insights into the processes that drive environmental action.

Conservation

Environmental sociologists have long studied the social and cultural factors that motivate people to participate in environmental and conservation movements and engage in pro-environment behaviors (Kennedy and Johnston 2019, Tripp 2018). Other studies highlight how meaning-making and identity shape conflicts over land and resources (Espeland 1998; Berg 2024) or focus on relationships with a single species (Angelo 2013). Additional work has emphasized framing as a central process in how people define problems and legitimate strategies to address them(Benford 1993, 1997; Brummans et al. 2008; Dewulf et al. 2009). These studies consistently demonstrate that social context and interpretive frames lead to diverse approaches to conservation.

The existing literature has explored the motivations for conservation (Kennedy & Johnston 2019; Tripp 2018), meaning-making and identity in conflicts over conservation (Espeland 1998; Angelo 2013), and institutional/cultural influences on valuation (Fourcade 2011). While this work has illuminated much about why people engage in conservation, it often leaves unexamined a prior question: what counts as conservation in the first place? Čapek (2012) and Borrelli and Davis (2012) highlight how "partnership with nature" frames or cultural heritage practices reshape relationships to ecosystems, suggesting that boundaries between conservation and other activities are fluid and

socially negotiated. This matters, because what counts as conservation varies across contexts and frames, shaping not only motivations for action, but also the actions people pursue. Similarly, Fourcade (2011) and Lamont (2012) remind us that valuation is socially constructed and institutionally mediated, raising questions about how categories of worth shape what practices are included or excluded under the banner of conservation. I try to include not only motivations, but to also interrogate how the category of conservation itself is socially constructed.

Government agencies offer broad definitions of conservation that focus on managing and sustaining natural resources. The USDA (2023) defines conservation as,

"The protection, preservation, management, or restoration of natural environments and the ecological communities that inhabit them. Conservation is generally held to include the management of human use of natural resources for current public benefit and sustainable social and economic utilization. Conservation is the careful maintenance and upkeep of a natural resource to prevent it from disappearing. A natural resource is the physical supply of something that exists in nature, such as soil, water, air, plants, animals, and energy."

US National Parks Services (2024) similarly emphasizes the importance of the proper and sustainable use of nature as a key element of conservation. National Geographic (2024), goes further by emphasizing the need to conserve not only nature's parts, but also its ecological functions. Conserving the processes and functions of nature is key for the inclusion of the migration of the Monarch Butterfly under the conservation umbrella, as the species globally is not endangered, but rather its North American migration.

Participants' frames extend conservation to activities that blend ecological, cultural, and economic goals. These functional definitions are particularly relevant to the Monarch Butterfly, whose North American migration is endangered, even though the species itself is not globally at risk. As a result, the species is listed as "Threatened" in the United States, "Endangered" in Canada, and a "Species of Special Protection" in Mexico. Yet these official definitions do not capture all the activities that movement participants themselves consider conservation-related.

I follow the lead of my participants and expand the concept of conservation to include any activity that the participant perceives as helping to preserve the ecosystem functioning or the species' survival. This often encompasses conservation-adjacent activities that blur the line between ecological protection and economic development. This is particularly important in the Monarch conservation movement, where some activities are clearly conservation-focused, such as planting wildflowers or fir trees that are key flora in the habitat for Monarchs, while other activities occupy a more ambiguous, conservation-adjacent space, such as ecotourism projects, which have potential benefits and drawbacks for the ecosystem. These activities often fund direct conservation efforts and support local communities near sensitive ecosystems by providing employment that reduces or eliminates ecological harm compared to previous economic options. By examining how Monarch conservation participants framed practices ranging from scientific monitoring to home gardening to ecotourism, this study highlights how the boundaries of conservation are socially drawn and contested. In doing so, it builds on work that links valuation and framing (Boltanski and Thévenot 2006;

Centemeri 2015; Doganova et al. 2014), extending it to the micro-level practices of conservation movements.

Because less is known about how individuals' frames and values in particular guide their conservation actions (Capek 2012), this conservation movement and the frame groups identified within it provide excellent cases for exploring this translation of frames and values into action. Collaboration depends on integrating diverse values into a shared frame of reference. Espeland (1998:xii) found that, "Unless disparate attributes and values are integrated as utility, price, or some other measure of value, it is impossible to make formal tradeoffs among different outcomes." As Espeland (1998) argued, integrating disparate values requires a shared evaluative frame. In the Monarch movement, awe and the shared desire to preserve the species often functioned as that integrative frame, enabling collaboration despite having different practices and priorities. By analyzing how different understandings of the Monarch Butterfly drive conservation strategies, collaboration, and conflict, I hope to provide insight into how participants' framing and valuations impacted their interactions and actions in conservation.

Findings

I find that the frames that participants used to understand the Monarch Butterfly not only shaped how they valued the species, but also the kinds of conservation actions they took. Nurturers focused on relational, hands-on care through gardening, education, and hand-raising Monarchs. Stewards prioritized land-based strategies that integrated conservation with community livelihoods. Conservers emphasized ecosystem-level interventions grounded in science and public outreach. Although each group had different priorities and concerns, participants also often collaborated. They were drawn together because

they were united by shared emotions such as awe and a common goal of preserving the Monarch's migration.

Nurturing Nature

Nurturers expressed their valuation of Monarch Butterflies through three main types of activity: social engagement and education, caregiving, and monetary contributions. Social engagement and education included joining online communities of like-minded people and nonprofit groups led by well-known Monarch scientists, as well as participating in local initiatives such as master gardeners' groups, local chapters of national conservation organizations, pollinator education projects, and wildflower plantings. Caregiving activities included planting milkweed and other host plants, restoring prairies, promoting reduced mowing on public lands, and raising Monarch caterpillars from eggs they found near their homes. Nurturers also contributed monetarily by donating money and time to local fundraising efforts for Monarch conservation, both in their own communities and in Mexico. Some of these actions, such as planting milkweed, directly supported Monarch habitats, while others, like participating in Monarch tourism or purchasing goods from communities near the Monarch sanctuaries in Mexico, were more conservation-adjacent.

Nurturers' ongoing involvement in conservation stemmed from awe-filled relationships with Monarchs and formative experiences. They valued the butterflies they raised each summer, focusing their efforts on planting gardens and caring for the eggs and caterpillars they discovered there. Many participants shared compelling origin stories about how their fascination began and why it persisted. They often described transformative moments of wonder, experienced firsthand as children or rekindled through the children in their lives, that spurred them into action. One mother, Martha, a

very committed citizen scientist and advocate for Monarch conservation in the Midwestern United States, described her girlhood exploring the prairies around her home and collecting Monarch butterflies. She said that in the 1970s, she saw many Monarchs every summer near her home. As an adult, when she and her children explored natural spaces near their home, she noticed that there were fewer Monarchs. She began to worry about the butterflies. As she learned more about all the threats they face, she felt compelled to try to save as many as she could. Her actions included advocacy work, cultivating a backyard garden, and supporting community butterfly gardens to provide way stations for migrating Monarchs. Her story reflected a broader pattern among Nurturers, whose memories of childhood encounters with nature fueled their interest in conserving the Monarch Butterfly, while also keeping them close to that original experience one-on-one with the butterflies in their care-giving.

For many, caring for Monarchs with their children or grandchildren reignited their early passion. They often enjoyed interactive, kid-friendly educational activities that helped to bring that sense of awe to others while educating them about the need to protect the Monarch Butterfly. Childhood experiences, as well as later experiences with their children, often transformed Nurturers' passing curiosity into a lasting commitment to the Monarch Butterfly. This pattern aligns with research showing that childhood exposure to nature fosters environmental engagement in adulthood (Wells and Lekies 2006; Chawla 2006). Among Nurturers, these influences were often renewed through intergenerational experiences, which is an important extension of this effect and a novel finding. Another Nurturer, Carol, shared a story about how discovering caterpillars with her granddaughter rekindled her own fascination: She recounted,

“Yeah, it was like crazy. It was like we, I, my daughter's youngest and we both just went, what the heck is all over the plant? And then we saw that they were caterpillars. And like I said, from there, we just, I just, and I just have a blast with them basically. I'm retired, and you know, it's a nice hobby.”

Carol and other Nurturers seemed to be able to put themselves in the shoes of the little children in their lives and rekindle the interest and passion they had as children. With renewed enthusiasm, and often with more time and resources to pursue it, they deepened their engagement in conservation projects that combined personal meaning with broader ecological benefits.

At the same time, these personal and emotional pathways into conservation shaped how Nurturers viewed policy interventions. Their skepticism about formal protections, such as the U.S. Endangered Species Act, reflected their desire to preserve the very intimate practices of raising Monarchs in their home in their homes. This tension between intimate caregiving and institutional regulation reveals how frames not only influence the activities that Nurturers pursue, but also the conservation strategies that they resist. Many Nurturers worried that protective legislation would lead to them losing their ability to hand raise Monarchs in their homes, while others were focused on the potential impact that restrictions might have on their outreach efforts. For example, Donna explained:

I do understand that it sounds like we would be limited on what we could raise [under ESA Protections], and that's okay for me. I don't need to bring them in my house, but I think you can't get people to understand. You can get people excited about things if you

can sell it to them. If you can get somebody to raise a Monarch butterfly, and they witness that process, I think they're more likely to take action.

She worried that without firsthand experience of raising Monarchs, people would be less likely to care about the species. This concern reflected her own path into the movement, which was prompted by just such an experience. She said she wanted to safeguard this pathway into the conservation movement for others.

Nurturers framed their activities not as merely environmental conservation, but as caregiving. In doing so, they depicted their activities not necessarily as environmentalism, which had political undertones, but instead as caregiving, a natural impulse that even children have towards vulnerable creatures like the Monarch. This natural impulse, as they characterized it, didn't make them tree huggers or individuals with a political agenda. It just made them caring folks, who looked after innocent children and little creatures alike. For example, Cary, a teacher from Chicago shared about a Monarch highway program that one government administration had funded and another cut, but she did so with no reference to political party or ideology, just noting how important awareness is. Funding conservation of the Monarch was a political issue for her, it was just about knowing that it's important and having that environmental education. She summed up her activism saying that, "You would take your passion, and you would do something for the cause." By depoliticizing their caregiving activities and participation in the movement, Nurturers broadened the appeal of the movement across the political spectrum while justifying their own actions. They framed their conservation activities as caregiving, as passion, as emotional connection rather than activism, which allowed them to maintain a sense of moral clarity and avoid the political polarization

often associated with environmentalism. By anchoring conservation within familiar roles of care and responsibility, Nurturers built a frame that not only motivated their own engagement, but also created accessible pathways for others to join the movement through everyday relational experiences.

Nurturers grounded their conservation practices in caregiving, drawing motivation from formative encounters and renewed experiences with children and grandchildren. Their actions, such as planting gardens, raising caterpillars, or supporting education, were framed less as activism than as natural extensions of care. This blend of personal history, intergenerational engagement, and everyday caregiving sustained their commitment to Monarch conservation and reinforced the Nurturing Nature frame as relational and enduring.

Stewarding Nature

Stewards grounded their conservation practices in a deep commitment to the land. Their frame emphasized reciprocity, local livelihoods, and place-based knowledge, shaping how they valued the Monarch and organized conservation activities. As a result, they focused on strategies like replanting trees, sustainable forestry, and natural resource management. Their efforts ranged from patrolling against illegal logging to cultivating seedlings in community nurseries and conducting controlled burns to reduce fire risk and supporting environmentally sustainable economic development projects. Practices like these supported the Monarchs' migration and ensured a healthy forest ecosystem. For Stewards, protecting Monarchs meant ensuring the health of the entire forest. Their conservation was both ecological and communal, rooted in the daily practices that sustained the mountain environment they called home.

Stewards recognized the Monarch as a barometer of ecological well-being. One Ejiditario, Juan, who worked for a local non-profit dedicated to Monarch conservation, explained:

"Take care of it, protect it more than anything so that it is there, [inaudible] every year because you can see that they [the Monarch colonies] change location, but sometimes they arrive in places without trees, so we have to take care of it and the forest now to avoid impacting it with our work."

He and others described how the butterflies' arrival highlighted where forest care was working and where it was failing. The sustained presence of Monarchs indicated a healthy ecosystem and abundant resources, reinforcing the reciprocal relationship between Stewards and nature. As another participant, a JOB TITLE in Mexico, put it, losing these resources would be like "taking the tortilla from the table and saying 'Look how we are going to eat tortillas that are gone.'" Such metaphors shared by Stewards grounded ecological concerns in everyday survival, underscoring how conservation was inseparable from their livelihoods and overall community well-being.

Yet Stewards also worried that climate change, development pressures, and economic shifts and pressures could undo their efforts. They described sudden warm spells, unexpected snowfalls, and shifting weather patterns that threatened both Monarch colonies and their livelihoods. Unexpected climate events risked devastating their investments in fir, cedar, and pine replanting. These uncertainties intensified their sense of urgency and shaped conservation strategies aimed at stabilizing both ecosystems and communities. Stewards stressed that even if they did everything possible to provide a safe

and healthy forest for Monarchs in Mexico, they had no control over development in the North or the global impacts of climate change.

Stewardship demanded reciprocity not only with nature, but also with other people in their communities. For example, Matias described his responsibility to future generations: "I get to know it, but my children, my grandchildren, my great-grandchildren and so on, all that come after me, they are not going to know anything about it… Unless we improve the habitat." He emphasized that this obligation extended beyond individual families: "We have to take care all for all… Everyone for Everyone…. If I just take care, then no, it's all going to disappear. Everyone, we have to take care for everyone's benefit." Reciprocal support was not only for those currently living and working on the land, but also for future generations, ensuring that the Monarch migration remained part of their legacy.

Stewards valued the Monarch Butterfly partly for the tourism revenue it brought. They often focused on activities that simultaneously protected the Monarch and enhanced the tourist experience, such as becoming certified guides, maintaining trails, and conducting controlled burns to prevent destructive wildfires. For many, this represented a symbiosis, or form of enlightened self-interest, in which both nature and people benefited. Being in balance and reciprocity also protected against natural disasters. Vicente, a Comunero, explained how neglect of the forest had caused real tragedies:

"Yes, in our community all the Communal Owners (Comuneros) called for us to take on this conservation project and to stop the logging because there had been a serious reduction in the water resources, among other natural resources. When the rains came

there were landslides that had happened, but since we've been protecting the forest it's been a little better."

Others described communal brigades that patrolled against loggers and replanted trees: "Those of us who are guarding [the forest]… we have been 7 years so far and we can see the positive results. We hope the institutions will give us a hand, same as us, we give a hand, they give a hand to support." For many indigenous Stewards in Mexico and the U.S., reciprocity also extended to sovereignty and cultural continuity. Joanne, a U.S.-based Steward, explained:

"This goes beyond really supporting monarchs and pollinators. It's about how we treat lands it's a matter of sovereignty, and treating them in accordance with their own cultural values and traditions is an important part of asserting that sovereignty. …the project leaders are coming out of the cultural department, not the environmental department … It's about values."

For many Indigenous Stewards in both Mexico and the U.S., conservation was inseparable from sovereignty, cultural continuity, and spiritual traditions, reinforcing the ethic of reciprocity as both ecological and sacred. This perspective extends the ethic of reciprocity beyond ecology or economics, situating conservation within the broader struggle for cultural survival and self-determination.

Stewards expected reciprocity not only from other people, but also from governments, NGOs, and tourists. They welcomed collaboration when outsiders contributed resources, respected local rules, and recognized the community's sacrifices. Matias captured this concern:

“If the forest goes, so does the Monarch Butterfly, the plants, the animals, the water, the oxygen, the mountains will erode to nothing. It’s an ugly prospect, of worthless land, we can’t allow that to happen. The governments of Mexico, the United States and Canada, from the top to the bottom, everyone has to invest in maintaining this environment.”

Matias’s words highlight how Stewards framed conservation as a collective responsibility, where the survival of the Monarch and the well-being of human communities were inseparable and dependent on shared care. Stewards expected reciprocity to be fair and proportionate: tourists with greater resources were welcome, provided they contributed to conservation funds, respected local rules, and recognized the community’s sacrifices.

Stewards often expressed pride in wearing the official vests of certified guides and in displaying government conservation signs at ejidal entrances. They also described positive collaborations with universities and researchers. Yet they were skeptical of some outside interventions. For example, a project in collaboration with a European university using biodegradable “hats” for fir seedlings left trees stunted after five years, while seedlings planted with traditional methods flourished. Such experiences reinforced their trust in traditional ecological knowledge and pragmatic, community-led conservation, while also reinforcing a skepticism toward outside experts. For Stewards, effective conservation demanded practical, observable success on the ground with clear supports for the land and the people who lived on it.

To summarize, the Stewardship frame reveals conservation as inseparable from community survival, reciprocity, and cultural tradition. Stewards valued the Monarch as

both a species and a symbol of ecological balance, using its presence as a barometer for forests, water, and livelihoods. Their approach underscores that conservation is not only ecological but also social, requiring mutual responsibility across local, national, and international scales. By grounding their practices in reciprocity—ecological, community, economic, and institutional—Stewards framed the Monarch as both a vital species and a measure of community well-being.

Conserving Nature

Participants who adopted the Conserving Nature frame approached Monarch Butterfly conservation through a strategic lens that prioritized ecological scale, scientific legitimacy, and broad public engagement. They emphasized ecosystem-level thinking and the ability to generate measurable, cross-sector conservation outcomes, which were evidenced when driving from a distance and viewing the difference in the density of the forest across state lines. In contrast to Nurturers and Stewards, who focused on direct care for the Monarch and the lands that sustained it, Conservers constructed value by leveraging the Monarch's symbolic power to mobilize resources, attention, and institutional support for wider conservation goals. They focused on public-facing educational initiatives and large-scale habitat interventions. These were often paired with ecosystem-level projects, policy advocacy, and public investment. As an example, Nina, a US-based Conserver, explained how it took her time to realize the Monarch's potential as a conservation tool. She shared:

"A couple of years into that experience, I started to truly understand what the opportunity was with Monarch because they were so captivating and so many people had a moment, a

Monarch story and, it's charismatic and inspiring… It started to click in my mind the opportunity was to use Monarch as a tool for much broader conservation effort."

For Conservers like Nina, the Monarch's charisma was as important as scientific data, serving as a tool to mobilize public support. This blending of science with education typified Conserver practices. Dana, another Conserver, discussed the impact of a project tagging Monarch Butterflies: She stated, "I think it makes a pretty good impact on the community, uh, in raising awareness about pollinators, loss of habitat in general, conservation of not only Monarchs, but insects in general. Pollinators in general." Dana's account illustrated how even data-gathering efforts could also educate and mobilize support for the Monarch and other conservation work. Across diverse projects, Conservers consistently sought to expand their reach, describing the Monarch as a 'gateway species' capable of attracting broader public involvement and institutional support.

Most Conservers expressed a willingness to listen and learn with and from regular folks who were passionate about the species and eager to lend a hand. Within this conservation movement, collaboration emerged as the primary focus for most Conservers. They promoted activities that supported both Monarchs and local communities, such as prairie revitalization, No-Mow campaigns, and sustainable forestry programs. For example, Martin, a Mexican Conserver and Steward, stated,"…[W]e are looking for a way to achieve that balance between the conservation and the development of the communities." His words captured the conservation approach taken by many professional Conservers in all three countries. Conservers' way of interacting with local communities was distinct from research on other international conservation organizations and how they have

historically clashed with local, often rural, communities (Rodrigues and Moog 2006; Pellow 2008). In the past, conservation focused INGOs have often focused on maintaining pristine wilderness spaces and excluding humans altogether (Pellow 2008). In contrast, Conservers described how they worked to build trust and partnerships with local communities.

In Mexico in particular, many Conservers had learned the vital importance of forging positive relationships with local landowners and communities. As an early-career biologist, Gael highlighted how his training emphasized collaboration rather than top-down enforcement. He explained:

"In his moment, recently graduated from the university, I have learned that to conserve the butterflies and the oyamel we have to work with the owners of these forests, in this case the Ejidos and from there we can begin to generate a conservation strategy with the participation of the Ejidos and communities. I believe this was or is one of the proposals that everyone makes, as it's a fact that if you start a conservation project without the participation of the local people you are destined to fail badly, at least in Mexico and many countries I believe share this. So, I believe that this is what has most gotten my attention, the work conserving the Monarch Butterfly in now also working with the owners of the forests."

Gael's reflections illustrated a growing recognition among early and mid-career professionals that conservation cannot succeed without local ownership and trust. Gael had been socialized to see his role as bridging the science and communicating it effectively to the public. Across all three countries, most Conservers saw public

education and collaboration as part of their jobs, and if not part of theirs directly, then part of the work of other colleagues in their organizations who were more focused on science communication and community outreach.

Conservers understood that the needs of local populations had to be included for conservation to succeed. For them, success looked like the implementation of less harmful practices, because it would be impossible to achieve anything like a pristine wild prairie in the Great Plains of the US or virgin forests in Central Mexico. Felix, a biology professor Felix with ties to all three countries, explained that the best conservation practices worked with local communities to "help them develop a proper management plan, using the scientific information that we gather throughout the years, and thinking of ways that make [conservation] more economically feasible or economically sensible." He and many Conservers emphasized that without local buy-in, projects would fail once outside experts left or funding was depleted.

Public support made many conservation projects possible by creating economic opportunities and funding nurseries for milkweed and trees. For Conservers, the Monarch served as a linchpin, not for its ecological role but for its social and economic importance. Another Mexican Conserver, Abimael, shared this concern,

"If some day there were smaller quantities [of butterflies] as much for tourism, because then it wouldn't be as attractive as all this and the people are going to think that now it isn't a benefit [to conserve the forests] and things could go very badly in the forest."

This perception of the Monarch's social importance, drawing public support via tourism and other means, drew Conservers closer to the species, yet they maintained emotional

distance. For most, the butterfly was a means to broader ecological ends rather than a personal attachment, unlike the affective bonds of Nurturers and Stewards.

Environmental educators stood out as exceptions, bringing emotional enthusiasm and child-focused outreach to the Conserver frame. They regularly interacted with butterflies and the public, especially children, and displayed far more emotional enthusiasm than most Conservers. John, a citizen scientist and educator, shared,

“So for my kids, thank you. This is, this is engagement on steroids, right? It's only something that you're standing back looking at. You're seeing something that you are really connected to, and that excitement and wonder is contagious.”

Such encounters in education helped foster affective ties and demonstrated how education could serve as a bridge between scientific and emotional framings of conservation. Conservers’ experience with children in an environmental education setting had many parallels to those of Nurturers with Monarch Butterflies and their children. Moreover, these educators served as effective bridge builders between diverse groups. Their outreach projects helped them obtain the local buy-in that Conservers knew they needed for successful implementation of long-term conservation plans.

Some Conservers– in particular, those who were from central Mexico, also served as boundary spanners– in this case, between Stewards and Conservers. Conservers like Felix and Jose, who had ties across countries but lived near the Monarch Sanctuaries, were accustomed to representing their region in international forums. They shared their scientific expertise and cultivated local trust by employing folks on research and conservation projects, translating the latest scientific findings, and ensuring that their

voices were heard. For example, Felix explained his frustrations that findings had not been published in a format that was accessible to locals, “So we have a really interesting publication, and it shows that this is the right approach, and I wish that scientific finding was available and easily known for them [local communities] to carry out properly in the mountains.” In response, he tried to help communicate findings to communities himself and with his students. Although boundary-spanning Conservers sought to build alliances across groups, they primarily identified with their professional community and prioritized scientific approaches over other ways of understanding the Monarch Butterfly and its migration. Like Felix, many saw the solution as making scientific knowledge more accessible, rather than adopting alternative understandings.

In short, the Conserving Nature frame emphasized strategic, scalable interventions grounded in science and public engagement. By valuing the Monarch Butterfly’s symbolic and charismatic power, Conservers pursued broad ecosystem goals while navigating tensions between expert knowledge and community participation. As I describe in the next section, Conservers advanced ecosystem goals but sometimes clashed with the more affective, place-based orientations of Nurturers and Stewards.

Collaboration and Conflicts in Conservation

In the previous section, I showed how Nurturers, Stewards, and Conservers pursued complimentary and contrasting strategies tied to their frames and values. Here, I show how shared emotions and goals fostered collaboration across groups. Despite differing frames, awe emerged as a cross-cutting orientation that encouraged mutual recognition and opened space for cooperation. As Hacking (1999) reminds us, constructionist claims often involve not just describing how meanings are made, but also revealing the power

relations that stabilize certain constructions over others. The interactions between Nurturers, Stewards, and Conservers illustrate how authority, resources, and institutional backing shape which definitions of 'conservation' gain traction, and whose frames are sidelined or elevated in collaborative efforts.

Professional scientists and conservationists employing the Conserving Nature frame typically participated in large-scale collaborative coalitions. In contrast, those using the Nurturing Nature frame mainly engaged with local groups, although Nurturers joined national or international coalitions when opportunities arose. Kathy, a Nurturer who regularly hand-raised caterpillars in the summer, recounted her involvement in a regional group in her state. In this public/private collaboration, folks were invited to set aside their organizational roles and connect with one another as humans with a deep concern for Monarch Butterflies and pollinators more generally. She described the process of solidifying consensus to be hard work, but worthwhile because of the creative approaches that emerged from that process.

Many of the folks using the Nurturing Nature frame and the Stewarding Nature frame shared Kathy's sentiments, but set boundaries on how they would collaborate. They engaged up to the point where it threatened their independence. Ironically, while many supported conservation, some opposed federal listing of Monarchs as endangered because it might outlaw the very practices, like home rearing, that embodied their conservation ethic. Nurturers and Stewards enjoyed collaborating with other members of the movement as long as it did not restrict their ability to hand-raise dozens of caterpillars in their homes each summer or control the land usage in their ejidal communities. For example, Nurturers often feared that protection under the US Federal Endangered Species

Act could result in them losing their ability to hand raise Monarchs in their homes, and therefore many were federal protection for the species.

Both Nurturers and Stewards resisted losing autonomy, however; the stakes were much higher for Stewards, potentially affecting their livelihoods. In Mexico, some Stewards had leadership positions in their Ejidos and frequently collaborated with international organizations and state agencies. Stewards also welcomed tourists from across the continent with a keen interest in Monarch conservation. While they did not always communicate easily across linguistic and cultural barriers, nearly all of the Mexican Stewards were excited that individuals and organizations from the US, Canada, and even some Europeans were interested in visiting their communities, supporting conservation efforts, and spending their tourism dollars in their region. Participants tended to be universally interested in the financial support offered by tourism. Uncertainty remained around the kinds of limits that legal conservation measures might impose on landowners and local communities. For many Stewards, the ability to conserve their land in consultation with trusted experts while still earning a living was non-negotiable. As many of the Stewards had experienced certain federal restrictions on their use of their land, they were very excited about voluntary collaborations, but understandably wary of compulsory or legislated mandates in support of conservation. Both ejiditarios and governmental officials reported that historically, such restrictions had often failed to provide local communities with the support needed to shift their livelihoods or retrain for equivalent or better income opportunities. This concern mirrored the caution expressed by U.S. Nurturers, who also feared losing control over their conservation practices. Even though Nurturers cared deeply about their ability to raise the Monarchs, the stakes

attached to the potential loss of control were lower, in that their economic livelihoods were not threatened.

In general, across frames and countries, people expressed genuine joy in interacting with working collaboratively with others who shared their core interests and concerns. As Jasper (2011) argues, emotions are not peripheral but constitutive of social movements, shaping both the emergence of frames and their ongoing evolution. Therefore, emotions tied to the frames are central forces in mobilization, sustaining participation and helping define the meaning of collective action. Even when visions or experiences diverged, participants found common ground that enabled effective dialogue and joint action. Allison, a conservation scientist, described how interacting with the community of "Monarch lovers," many of whom used the Nurturing Nature frame, had influenced her work. The Nurturers had prompted Allison and her colleagues to ask new and different research questions in their lab, such as about the ability of Monarchs raised in different environments to navigate adequately and migrate. Allison's interactions with Nurturers demonstrated the value of their research for both science and the conservation movement and motivated them to leverage their resources to support the movement while trying to prevent potential missteps along the way. Additionally, this kind of interaction shows how Nurturers' affective commitment could directly shape scientific inquiry.

Even though collaboration could be productive, social, cultural, and economic differences shaped people's practices and made adaptation essential. Nina, a conservation scientist, described how she had worked in a collaboration with diverse stakeholders. Even though disagreements were common, collaboration generally evolved in what she described as gratifying and productive ways, explaining:

Monarch conservation is an international issue. And so, um, you know, we, we definitely collaborate and work with our partners in Mexico, but, but that would be an example where, you know, we're not focused just on the US because we don't want to work with Mexico, but just that it's such a different, um, cultural and political environment that really they're, they're very separate issues even though they're very intertwined, if that makes sense. And it doesn't necessarily drive conflict but, but there are just very, um, there are differences in our, in our tactics for conservation in Mexico and the United States and Canada based on cultural differences and economic differences and political differences.

Because of her transnational view, Nina was able to see how people across the movement pursued the same goals through very different approaches. Nina's experience reinforced the need to adapt conservation strategies to different national and cultural contexts, even when participants shared overarching goals. Such differences did not prevent collaboration, but they did require flexibility in tactics and expectations.

Overall, while most participants highly valued collaboration, power asymmetries also shaped interactions– in particular, between Nurturers in the United States and Stewards in Mexico. Nurturers often saw Mexican Stewards' conservation work as a charitable cause rather than a partnership. They often viewed communities surrounding the Monarch Butterfly sanctuaries in Mexico as potential sites for charitable giving and sources of labor for tourism and conservation, as opposed to full partners in the conservation movement. For example, in one rural community with a Monarch Sanctuary I visited, I met several Nurturers who were visiting and had brought donations of toiletries and small items for people in that community from their faith community. Unfortunately, this

charity didn't really meet a need in that community, and several community members quietly mentioned this mismatch to me later. Nurturers universally supported fundraising for forestry projects in Mexico led by largely international NGOs or protection schemes developed by government agencies.

Many Nurturers also strongly supported restrictions by the Mexican government on logging in forests with Monarch colonies. When it came to strong government intervention of their own activities, however, Nurturers expressed concern. In response to petitions, some from Conservers, to the US Fish and Wildlife Service to review the status of the Monarch Butterfly and potentially designate it as endangered, many Nurturers expressed that this would threaten their ability to continue to hand-raise Monarchs in their homes and gardens. This is due to the restrictions that the Endangered Species Act places on human interaction with and transportation of endangered species. It seemed like for many Nurturers, people in distant communities, who spoke a different language and fewer financial resources, were appropriate recipients of governmental control, but not them. For example, Cora described the need for local, rather than federal, control over funding for conservation. As stated above, Nurturers' concerns about restrictions were similar to Stewards' concerns about current and potential future restrictions on their use of their lands Yet the level of personal risk differed greatly. Nurturers risked access to an important emotional connection and a hobby. Stewards risked their ability to engage in economically viable activities, such as agriculture at certain elevations, logging, tourism permits and others. Conservers were the least directly threatened by regulation. Many Conservers were employed by governmental agencies, public universities, or non-governmental organizations that worked closely with or petitioned lawmakers. They

tended to approach legal protections as a tool that could help or hinder their conservation goals if used correctly. They did not feel as personally threatened by restrictions, although they recognized that regulations could help or hurt their cause. Most Conservers worked as public servants were accustomed to a relatively low level of government oversight on behaviors such as logging, pesticides, or rural land development. Conservers' frustration with the lack of government oversight may have been contributors to their greater willingness to support tighter legal protections, even those that many perceived as overzealous.

These divergent responses to regulation illustrate how each frame shaped not only participants' values, but their sense of what was at stake. For Nurturers, restrictive policies risked undermining the personal, hands-on practices that made their conservation efforts meaningful. Stewards viewed regulation through the lens of economic vulnerability and autonomy over their land use, weighing conservation needs against their community's survival. In contrast, Conservers, especially those in professional roles, saw legal protections as strategic tools—useful if well-designed, frustrating if under-resourced, and rarely threatening to their core work.

Conclusion

In sum, while participants shared a common commitment to conserving the Monarch Butterfly, they pursued this goal through distinct strategies. These strategies were shaped by the frames that gave meaning to their efforts. Nurturers emphasized relational care and emotional connection. Stewards prioritized reciprocal relationships with the land rooted in cultural and economic survival. Conservers approached conservation through science-based interventions aimed at ecosystem-level change and garnering public support. These

divergent frames produced both friction and fertile ground for collaboration. Participants frequently found ways to work together by planting milkweed, restoring fir forests, and advocating for habitat protection, even when their values and practices diverged. Yet their collaboration was not without limits. Deeply held attachments to particular forms of conservation, concerns over autonomy, and uneven power dynamics, especially in transnational partnerships, shaped the possibilities and boundaries of cooperation. Consistent with Capek's (2012) discussion of blended natural and social frames, and Farrell's (2015) analysis of sacred framings that both unify and divide, participants' deeply held values created some opportunities for collaboration while also reinforcing boundaries in other cases. Ultimately, this chapter demonstrates that conservation is not a singular activity but a contested and negotiated process shaped by the values and frames held by those engaging in the work. As Kennedy and Johnston (2019) remind us, understanding environmental action requires attention to cultural meanings, and the Monarch case illustrates how such meanings are embedded in frames that structure action, cooperation, and conflict. Understanding how people differently define, value, and act on behalf of nature is essential to navigating collaboration in a time marked by ecological crisis and competing priorities. These insights are urgently needed in this era of mass anthropogenic extinction, as they show how diverse ways of valuing nature can shape the effectiveness and future of conservation movements.

Chapter 6- Conclusion

In the 21st century, people and institutions around the globe must confront two huge and complementary challenges: managing the mass extinction occurring on our planet and finding ways to build common understanding and collaborate to confront this challenge. Addressing these intertwined crises requires intellectual tools that connect ecological realities with questions of how people develop shared understandings, values, and priorities for action. As Hacking (1999) argues, social constructionist claims vary in their strength and intent. They range from showing contingency to unmasking power and revealing how meanings stabilize over time. This insight underscores the importance of examining not only what ecological realities exist but how they come to be understood, valued, and acted upon through specific social lenses. This dissertation has pursued such a task by examining the transnational movement to protect the Monarch butterfly and its migration. The Monarch is ecologically resilient as a species, but its migration is deeply fragile, shaped by deforestation, climate change, habitat loss, and shifting agricultural and economic pressures. The non-migratory populations in Florida and other places globally exemplify this resilience. The Monarch thus offers a unique window into how people frame and value nature and how those frames and valuations shape both conservation practices and the potential for collaboration across diverse social and ecological contexts.

This dissertation demonstrates that participants adopted three primary frames to understand the Monarch and their role in protecting it: Nurturing Nature, Stewarding Nature, and Conserving Nature. Each frame organized values, practices, and expectations for action in distinct ways. Nurturers approached Monarch conservation through personal

care, hands-on engagement, and relational attachment. They valued the butterfly as a companion and symbol of wonder, often focusing on home- and community-based practices such as hand-raising caterpillars, planting milkweed, and educating children. Stewards grounded their conservation in reciprocity, local livelihoods, and place-based knowledge. For them, the Monarch served as a barometer of forest health and cultural continuity. They emphasized sustainable land management, economic survival, and their shared responsibilities to both ancestors and future generations. Conservers emphasized scientific legitimacy, large-scale interventions, and broad public engagement. They leveraged the Monarch's charisma as a "gateway species" to mobilize resources and policy support, often prioritizing collaborations, educational campaigns, and large-scale habitat initiatives.

Despite these differences, awe emerged as a shared affective orientation across frames. Awe functioned as a cross-cutting force that fostered mutual recognition and created opportunities for collaboration, even when definitions of conservation diverged. Jasper (2011) highlights how emotions such as moral shock, pride, or hope can galvanize individuals across otherwise divergent positions. This finding highlights how emotion can not only motivate environmental action, as previous research (Brewster and Bell 2010; Angelo and Jerolmack 2012) has shown, but also helped foster the building of coalitions across diverse values and practices.

Another central finding concerns the boundaries of conservation. While formal definitions from government agencies and NGOs emphasize ecological management and resource protection, participants defined conservation more expansively. They frequently included "conservation-adjacent" activities such as ecotourism, environmental education,

and sustainable economic development. These practices blurred the line between ecological protection and livelihood strategies, underscoring that what counts as conservation is not fixed but actively constructed and contested.

Key contributions

I make four primary contributions to sociological research on environment, valuation, and framing and one additional contribution to the literature on pro-environmental behaviors and conservation actions. First, my dissertation extends frame analysis by showing how ecological realities and institutional contexts shape frames in practice. Previous scholarship has emphasized frames as discursive or strategic tools in social movements (Benford 1993, 1997; Brummans et al. 2008; Dewulf et al. 2009). My findings suggest that frames in environmental contexts are not only rhetorical devices, but also practical guides embedded in material conditions, ecological knowledge, and local livelihoods. For example, Stewards' framing of reciprocity was not abstract but tied to specific practices like patrolling against illegal logging and replanting fir, cedar, and pine, which directly sustained both Monarch habitats and their own agricultural futures.

Second, my dissertation contributes to valuation studies by examining how values translate into everyday practices of conservation. Scholars such as Fourcade (2011) and Lamont (2012) have highlighted how valuation is socially constructed and institutionally mediated. This study builds on that work by showing how categories of worth operate at the micro-level: shaping whether participants considered raising caterpillars, planting trees, or running tourism programs as "conservation." It demonstrates that valuation is not just about attaching prices or prestige to nature, but also about drawing boundaries around legitimate forms of action. For instance, Nurturers consistently valued hand-

raising caterpillars as conservation, despite Conservers' skepticism, showing how emotional and relational worth could expand the category of legitimate action. While Conservers were unsure if hand-raising made any species level impact for conservation, it was so emotionally valuable to Nurturers who saw themselves as saving each little creature that they could not fathom a conservation strategy that didn't have space for their individual efforts.

Thirdly, this dissertation responds to calls within valuation studies to extend theoretical development into new social arenas, particularly those involving social change and collective action (Kjellberg et al. 2013). By analyzing valuation as a socially embedded process within the Monarch Butterfly conservation movement, this study demonstrates how the building blocks outlined by Krüger and Reinhart (2017) interact dynamically in the field. Participants' frames and emotions, including awe, shaped valuation practices and structures, while institutional contexts and conservation technologies constituted valuation infrastructures. The transnational character of Monarch conservation revealed how valuation situations emerge through overlapping political, cultural, and ecological contexts. The "spark" of reflexivity that Krüger and Reinhart describe appeared in both collective and individual experiences that drew people into the movement. By empirically tracing these relationships, this dissertation moves beyond documenting plural valuations to examining their interrelations, answering a decade-long call for more process-oriented theorization of valuation within social movements.

Finally, my work deepens environmental sociology's focus on pro-environmental behavior and social movements. Previous research (Kennedy & Johnston 2019; Tripp 2018; Espeland 1998; Angelo 2013) has illuminated why people engage in conservation

and how identity shapes conflict in movements but Jasper looks at movements and (2011) calls for greater attention to the situated, embodied, and dynamic nature of emotions in movements, emphasizing how affect and interpretation are intertwined throughout mobilization. By tracing how awe and related emotions circulated among Monarch conservation participants, I show how affective experiences help anchor and transform interpretive frames over time. Scholars have long argued that emotions play a constitutive, not just motivational, role in shaping how people interpret and act upon nature (Jasper 2011; Gould 2009). Awe can foster prosocial behavior, moral elevation, and feelings of connection to larger nature and others. In this research, awe consistently appeared as a bridging force. Nurturers expressed awe through intimate encounters with the Monarch in their backyards. Stewards experienced awe through their seasonal return to the forests of central Mexico. Conservers often described awe as what first drew them into scientific or policy work. Despite differences in how these groups framed and valued the Monarch, awe provided a shared emotional anchor that made collaboration possible, even when strategic and cultural differences arose. Integrating affective dimensions like awe into analyses of framing and valuation helps illuminate how conservation movements coalesce around collaborate. It demonstrates that shared emotional experiences can foster a sense of collective purpose across lines of power, place, and practice, offering a critical lens for understanding how environmental movements might build common ground in a fragmented world. These findings underscore the importance of treating emotion not merely as a motivator of individual engagement but as a constitutive dimension of framing itself.

Finally, this project highlights the attitudes towards role of regulation and power. Nurturers resisted government restrictions that might limit their ability to raise Monarchs, even as they supported strict regulations on Mexican forests. Stewards, whose livelihoods were directly at stake, approached regulation with caution and often preferred voluntary or locally negotiated agreements. Conservers saw regulation as a tool that could enable or hinder their work, depending on how it was designed. These divergent stances reflect different strengths of constructionist engagement with state authority: some participants treated conservation rules as contingent and negotiable, while others accepted them as necessary tools for stabilizing meaning and practice (Hacking 1999). These divergent responses reveal how frames shape not only values but also perceptions of risk, legitimacy, and authority in conservation. This was particularly evident in debates around the potential listing of Monarchs under the U.S. Endangered Species Act, where Nurturers feared losing their close relationships hand raising Monarchs, Stewards feared loss of livelihood and control over their land, and Conservers saw legal tools as opportunities if paired with sufficient resources and local buy-in.

Directions for Future Research

Firstly, future research should investigate how power asymmetries shape collaboration and conflict in conservation movements. Although this dissertation largely highlighted moments of cooperation and occasional tension between different participants, based on their Framesf, but it did not fully examine how inequalities of wealth, language, and political authority influenced whose frames and valuations carried the most weight. For instance, Nurturers in the United States often framed Mexican Stewards' conservation work as a charitable cause rather than as a partnership, reflecting uneven access to

financial resources and decision-making power. Similarly, Conservers, many of whom were employed by universities, NGOs, or government agencies, often had greater authority in setting conservation agendas compared to local landowners or hobbyist Nurturers. Future research could further analyze how these dynamics unfold in transnational networks, especially where international organizations and local communities intersect, and identify the conditions under which local voices are amplified or marginalized.

Secondarily, future research should explore the role of emotions in shaping valuation processes. This dissertation identified awe as a shared emotional value orientation that bridged otherwise divergent frames, enabling collaboration across groups with very different values and practices. Yet the precise relationship between affect and valuation remains an open question. For example, while awe enabled participants to recognize the Monarch as a symbol of ecological wonder, Stewards also drew on grief when describing devastating climate events, and Nurturers often emphasized hope when raising caterpillars in their homes. Each of these emotions influenced what participants valued and what practices they saw as legitimate forms of conservation. Building on this insight, future research could examine how emotions like awe, grief, and hope interact with frames to reshape conservation strategies, connecting valuation studies more explicitly with the sociology of emotions.

Finally, future research should test how generalizable these findings are beyond the Monarch case. The Monarch Butterfly provided a particularly rich case because it is simultaneously charismatic, migratory, and embedded in transnational cultural and ecological systems. However, it remains uncertain whether other species or ecosystems

generate similar cross-frame negotiations. For example, would conservation movements organized around less visible species, such as soil microbes, fish, or amphibians, also inspire the same kinds of affective connection and collaborative tensions? Or do they invite entirely different valuation logics, perhaps privileging ecosystem services or economic tradeoffs over awe or cultural symbolism? Comparative studies across species and sites could clarify when and why conservation movements broaden or narrow the boundaries of what counts as conservation, thereby extending and testing the framework developed here.

To conclude, this dissertation has shown that conservation is not a singular activity, but a contested and negotiated process shaped by frames and values. Nurturers, Stewards, and Conservers pursued distinct strategies, such as, hands-on care, reciprocal land management, and ecosystem-scale intervention, and yet also found ways to collaborate across differences, often bridged by shared awe at the Monarch Butterfly. These findings deepen our understanding of how conservation is defined, valued, and enacted, while contributing to broader debates in environmental sociology and valuation studies. By showing how diverse frames and values shape what counts as conservation, this research underscores that the future of conservation movements depends not only on ecological science but also on recognizing and negotiating plural ways of valuing nature. Understanding how people differently define, value, and act on behalf of the natural world is essential to navigating collaboration in an era marked by ecological crisis and competing priorities.

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APPENDIX

Interview Guide - English

Date/Time:_____ Location:_____ Country: _____

Interviewee: _____Organizational Affiliation: _____

When did you first become interested in the Eastern Monarch butterfly? What spurred that interest?-Did you get involved in the movement/industry at that point? Why or Why not? If not then, when?

-What was important about the Monarch for you then? Now?

- Do you feel like the organization you work with and other folks in that organization would highlight the same things about what is important about the Monarch as you did? If not, what would they highlight? Why?

What led you to get involved with the movement? With _____ organization? What was that process like?

-What was your initial role in the movement/industry?

-What is your current role in the movement/industry? In the _____ organization particularly?

-What does you position entail?

-How do you feel about that role?

The _____organization currently has _____ events and campaigns underway. Could you tell me about those and their purpose?

-Do you feel like this campaign is currently effective for achieving (previously defined purpose)? Why or Why not?

-How did you all in _____ organization decide to set the campaign up in this particular way? With this particular focus?

Are you aware of the campaigns, conservation or other activities spearheaded by other organizations that you interact with?

-How would you say those are similar or different to the one you are involved in? What do you Make of those similarities/differences?

What do you see as the root cause of the Monarch's decline?

-Have you noticed any similarities or differences between the ways that _____ organization is presenting this decline and other groups? What do you make of that?

What are your hopes for the future of the Monarch conservation and/or the Monarch related work that you/ your organization does?

-How do you foresee this coming about?

-What role do you see different groups (actors) playing in this? NGOs/Conservation Organizations? Governments? Researchers/Academics? Others?

To what lengths do you think that we (as a society) should go to save the Monarch?

-Is there a max to spending or effort that should be expended to save this species? Others?

-Who do you think benefits most from efforts to protect the Monarch?

When you think about the value or importance of the Monarch for you and the folks you work with, how would you describe that?

-What do you feel informs your ideas about the value or importance of the Monarch?

-Is it particular to this species? Or does it expand to other species or nature more generally?

Could you put a figure to it? Like a dollar/peso number? How much money is this subspecies and it's unique migration worth?

-If so, how would you arrive at that figure? If not, why not?

Follow-up

Would you be willing to recommend any colleagues or friends within your organization or others who work on/around Monarch business/conservation whom you think I would benefit from talking to?

If I have any follow up questions or clarification would you be ok with me emailing or calling you with those questions?

Guía de Entrevista - Español

Fecha/Hora:_____ Ubicación:_____ País: _____

Entrevistado: _____ Afiliación Organizacional: _____

¿Cuándo empezó interesar en la Mariposa Monarca? ¿Que despertó su interés en la Monarca?

- ¿Empezó participar en el movimiento/industria en este momento? ¿Porque si o no? ¿Si no en este momento, cuando?

- ¿Que era importante para usted sobre la Monarca en este momento? ¿Ya?

- ¿Se siente usted que la organización en que usted trabaja y sus colegas en la organización notarían las mismas cosas que usted notó como importante? ¿Si no, qué piensa usted que ellos notarían? ¿Porque?

¿Que se llevó usted involucrarse en el movimiento/industria? ¿Con _____ organización? ¿Cómo era este proceso?

- ¿Cuál era su primer role en el movimiento/industria?

- ¿Cuál es su rol actual en el movimiento/industria? ¿En _____ organización particularmente?

- ¿Cuáles actividades están incluidos en su rol o posición?

- ¿Cómo se siente acerca de su rol?

La _____ organización actualmente tiene _____ eventos y campañas preparados. ¿Me puede contar un poco acerca de estés y sus propósitos?

- ¿Usted se siente que esta campaña y/o estés eventos están alcanzando su propósito? ¿Porque sí? ¿Porque no?

- ¿Cómo decidieron usted y sus colegas en _____ organización hacer la campaña (o estés eventos) de esta manera particular? ¿Con este enfoque particular?

¿Usted es consciente de las campañas, conservación, u otras actividades que otras organizaciones y colegas en otras organizaciones con quien usted colaborar o simplemente conoces bien?

- ¿Cómo son estés similares o diferentes a las actividades en que usted está involucrado? ¿Qué opina usted de estas similitudes o diferencias?

¿Qué ve usted como la causa de la situación actual de peligro de la Monarca?

- ¿Usted ha notado algunas similitudes o diferencias entre la manera que _____ organización y otros están presentando la situación actual de peligro de las Monarcas en Norteamérica? ¿Qué opina usted de estas similitudes o diferencias?

¿Cuáles son sus esperanzas acerca del futuro de la conservación de la Monarca y/o trabajo relacionado con la Monarca que usted/su organización hace?

- ¿Cómo anticipa usted que eso podría suceder?

- ¿Que role usted ve diferentes grupos (actores) tomando en eso? ¿NGOs/Organizaciones Ambientalistas? ¿Gobiernos? Investigadores/Académicos? ¿Otros?

¿Hasta qué punto debemos ir (como una sociedad) para salvar la Monarca?

- ¿Hay un máximo a los gastos y fuerzas potenciales que existe para lo que debemos hacer para salvar esta especie? ¿Otras especies?

- ¿Quién piensa usted que beneficia más de las fuerzas para proteger la Monarca?

¿Cuándo usted piensa del valor o importancia de la Monarca para usted y sus colegas, cómo lo describirías este valor o importancia?

- ¿Que se siente usted que informe sus ideas acerca del valor o importancia de la Monarca?

- ¿Es particular a esta especie? ¿Expande a otras especies o la naturaleza en general?

¿Sea posible nombrar un número para este valor? ¿Cómo una cantidad de pesos o dólares? ¿Cuánto vale esta subespecie y su migración única?

- ¿Si llegó a un número particular, cómo llegó usted a este número? ¿Si no llegó a un número particular porque no?

Al Final

¿Sea usted dispuesto recomendar algunos colegas o amigos dentro de su organización u otras organizaciones que trabajen en o acerca de Monarcas como negocio o conservación que podría darme más información para apoyar mi proyecto?

¿Si tengo preguntas adicionales o necesito clarificar una respuesta, está bien si mando un email a usted o le llamo por teléfono?