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Actions Speak Louder Than Word: The Importance of First Hand Experience in Nature Conservation

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Little did I know the real impact that my time in Aruba would have on me.

The opportunity to do research in Aruba for my bachelor's thesis is both a privilege and an opportunity that I will forever be grateful for. Being an anthropologist I have had the pleasure of reading multiple ethnographic accounts and have had ample discussions on the intricacies of fieldwork. However, I often felt that I would not be able to do much anthropological fieldwork within my bachelor's, as these serve more as foundational years. However, the opportunity to come to Aruba presented itself, and soon after the first meeting with Eric, I already had a group to do research with; the volunteers from Turning the Tide. Little did I know the real impact that my time in Aruba would have on me. I had been so focused on the preparation of the research before coming, that I had barely had the opportunity to realize that I was going to be living in a country completely foreign to my own for the next two months and a half.

As an international student, I am aware of how moving

countries can have a profound effect on individuals. However, I was not ready for the hospitality and kindness with which we were received, by students, teachers, locals, and everyone we encountered. The warmth of the people, and that of the environment is a memory that I will forever cherish. I will never forget all the adventures that we went on to the north coast or the Parke Arikok. These were the experiences that I wasn't anticipating but made my time on the island so much more valuable to my personal growth.

Furthermore, I could not have anticipated the way that the experiences with my research had a profound impact on the way I viewed the environment. Working in coral out-planting through a volunteer-based project here on the island, I was SCUBA diving every weekend. With underwater life being a passion of mine already, volunteering for Turning the Tide represented a glimpse of the life that I want to live in the future – not as a researcher but as being

actively engaged in environmental efforts. I will be forever grateful to Tobia who helped me join in the volunteer efforts; to Sietske who would organize and coordinate the dives; to Dana, Jef, and Marc, new and unexpected friends who taught me so much about ocean life here and abroad; to all the UA students who were open to talking with me and sharing their experiences with me; and to everyone else who made the experience unforgettable and created such a welcoming atmosphere.

Actions Speak Louder Than Word: The Importance of First Hand Experience in Nature Conservation

Uxue Gantxegi

Introduction

The network of issues of climate change stem from an energy system that is rooted in the exploitation of natural resources, one which necessitates collective action to enact any meaningful change (Wuebbles, 2001; Höök & Tang, 2013; Schenck, 2008). The heavy use of fossil fuels as our main source of energy has had detrimental issues on the planet's ecology which have created a *positive feedback loop* leading to the world's 6th mass extinction that we are currently living in (Ceballos et al., 2015). This is a narrative that I, and many other young adults in the so called global north have grown up with. Starting early in my life, there were discussions of recycling and ways of energy saving, for example, my parents would have a shared laundry machine so that we would use less water. I have often been involved in discussions, in school and social circles, about the need for collective action in order to mitigate the repercussions of climate change. My childhood, spent in a little village in the north of Euskadi (northern Spain), surrounded by lush forests and ample space for us to play in, resulted in a deep care for the environment which has only flourished throughout my life. My father would often organize little hikes for us to go in, and my grandfather had a vegetable garden near our house that he would tend to, and teach us about. These embodied contacts that I had with nature during my childhood heavily shaped my passion for nature conservation and my need to be out in nature, where my environmental subjectivity, as described by

Agrawal (2005) started to be formed. It was in my adolescent years that I first started scuba diving and learning about the way that climate change was affecting ocean ecosystems and biodiversity through experiencing coral bleaching in the Philippines. Having the privilege to dive in places like the Philippines and Indonesia, where there are ample reefs of all colors imaginable, my care for the environment is focused on ocean and reef conservation. My own personal history with environmental activity - as active full-bodied experience with the natural world is what I find to be the catalyst to my environmental subjectivity. Thus this research focuses on how this environmental activity might shape the subjectivities of agents to become more environmentally inclined.

In response to the pressing need for coastal ecosystem restoration within the island of Aruba, collaborative efforts have been undertaken through the Turning the Tide project. This initiative, funded by RESEMBID, is a collaborative project between Wageningen Research University, the University of Aruba (UA), Scubble Bubbles Foundation, and Fundación Parque Nacional Aruba (Aruba National Parks Foundation). It aims to kick-start the restoration of the interlinked mangrove and coral reef ecosystems. The project, which I have had the honor to be part of, also focuses on involving the community in the conservation efforts through providing them with scuba diving and Global Coral Reef Monitoring Network (GCRMN) training and involving them in the monitoring of the coral reefs

and the outplanting of corals. The involvement of these volunteers and how this work has shaped their subjectivity is of central interest for this paper. By examining the varied experiences of volunteers, this study seeks to elucidate how active involvement in conservation efforts influences individual subjectivities and underscores the potential transformative power of such initiatives.

Theoretical Framework

At the center of this research is the transformation of individual subjectivities into what Agarwal refers to as environmental subjectivity; people for whom *“the environment is a conceptual category that organizes some of their thinking and a domain in conscious relation to which they perform some of their actions.”* (2005, p162). Agarwal’s exploration of “Environmentality” delves into the intricate process through which individuals develop a concern for the environment, elucidating the interplay between governmental, individual, and communal dynamics. He adopts the Foucauldian concept of governmentality to analyze the way in which subjectivities come to be intertwined with political institutions when nature comes to be a space that requires protection and regulation. This way, environmentality becomes a means through which environmental subjectivities arise through the interaction of beliefs, perceptions and actions to shape the individual subjectivities (Agrawal, 2005). meaning that environmental subjects reflect upon how their actions influence the environment, and will consider it in their everyday decision making. Central to subject formation is the interaction between personal and collective beliefs, as individuals navigate between the private and public realms. However, Agarwal contends that it is the active engagement in nature conservation practices that fundamentally shapes environmental subjectivities (Agrawal, 2005). This involvement underscores the active nature of environmental subject formation as being constituted through practices, as an embodied and enacted process of active engagement with the environment.

The concept of subjectivity as grounded in practice bears resemblance to Bourdieu’s notion of habitus, often criticized for its deterministic outlook and neglect of individual reflexivity (Sayer, 2010). However, as suggested by Nicos Mouzelis (2008), rather than discarding the concept entirely, there is merit in its modification (Sayer, 2005). By understanding habitus as a *“kind of osmosis or unconscious adaptation through to a more conscious process of learning how to do things so that we can do them without thinking”* the understanding of subjectivity as an embodied process enhances the traditional view of subjective formation (Sayer, 2010, p.88). This more holistic understanding of embodied subjectivity, further expands the understanding of how our everyday activities - whether environmentally driven or not, shape subjectivities. This theory aims to go beyond the cartesian division of body and mind, and in turn engage the ways in which mind and body are in a dialogical relationship and thus intrinsically linked (Cromby, 2005). This perspective underscores the interplay between conscious learning processes and embodied experiences, informing individuals’ values and beliefs. Such an approach encapsulates the reflexivity inherent in subject formation, as observed by Agrawal in his analysis of environmentality.

This phenomenological approach to subject formation recognizes the transformative potential of everyday conservation experiences, particularly for individuals engaged in repeated environmental practices, such as the volunteers of the Turning the Tide project. It emphasizes the reciprocal relationship between individual consciousness and embodied experiences, wherein environmental challenges become focal points for the reflexive construction of habitus. Thus, the intimate nexus between individuals and their environment, facilitated by conscientious practice and awareness, fosters the emergence of environmental subjectivities. This conceptual framework will guide the analysis of volunteer experiences within the Turning the Tide project, elucidating the intricate interplay between individual agency and environmental engagement.

Methodology

To comprehensively unravel the intricate processes involved in the development of environmental subjectivities, this study employs a multifaceted methodology encompassing participatory action research (PAR) and semi-structured interviews conducted with various volunteers affiliated with the Turning the Tide initiative. PAR involves the active participation of an ethnographic researcher within the field they are studying (Ortner, 1984). In this case, my volunteering within the Turning the Tide project allowed me to delve deeper into the nuances of subject formation by undergoing the same experiences as the volunteers who will be interviewed. Consequently, this methodology not only facilitates an understanding of the volunteers' perspectives but also engenders a transformative effect on my own subjectivity. This deeply engaged approach to research underscores the ethical imperative of reciprocity and respect, particularly given the researcher's privileged position as an investigator granted access to the lives of others. It is because of this that I have decided to conduct the interviews at the end of the out-planting phase of the project, to allow for more reflexive conversations and to be engaged in volunteering wholeheartedly, further embracing my personal subjective transformation through this process. Furthermore, I put myself in the position of both the researcher and the participant to avoid hierarchical relations within the research.

Following the completion of the coral planting phase, I sat down with the volunteers to discuss how and if the volunteer work had affected them. This phase of the research involved seven participants; Four of them were UA students who were part of the program in a volunteer capacity; Two marine biology master students from Wageningen University who were volunteering and also gathering data for their thesis; and one 22 year old local participant who heard about the project through Scubble Bubbles. These participants were a select group of people from the project, and so they only represent a portion of how this project has affected various other volunteers.

Preliminary Findings

During my participation in the project, I have witnessed the creation of a small yet diverse community, drawing in numerous volunteers to build the artificial reef structures, out-planting the corals, and now monitoring their growth. The diverse nature of these tasks has led to differing levels of engagement among volunteers, reflecting varying degrees of involvement in the project, and with it, varying levels of subjective transformation. First off, UA students and staff had to become certified in diving, and for some this required them getting the license to begin with. After making sure that all the volunteers were certified, both students and staff members had to take a two-part Global Coral Reef Monitoring (GCRM) course. They first had to learn the theory and then do a series of practice runs. The course was in preparation for the prolonged involvement in the monitoring of the coral reefs throughout Aruba, as well as monitoring the reefs that were out-planted throughout the project. During this time, a larger group of local volunteers were involved in the construction phase of the Mars Assisted Reef Restoration System (MARRS),



You can see the maars reef system that is composed by sets of umbrella star structures to which the coral get attached to.

These structures were then placed at various coastal areas of Aruba in preparation for the coral out-planting, constituting the phase I actively participated in. This is followed by the monitoring of how these reefs are progressing, which the trained staff and students could participate in.

The out-planting phase entailed four consecutive weekends of volunteer engagement, primarily focusing on artificial reef cleaning and coral fragments out-planting. On Saturdays, around five to twelve divers, depending on the number of reef systems that we would have to tackle, would gather for the cleaning of the MARRS reefs. Equipped with metal bristle brushes and gloves, volunteers meticulously removed algae and debris from the reefs, a task often described as meditative. Divers were divided into groups, where each group was assigned a specific MARRS structure to clean, and would work alongside two ‘finishers’ - often the organizers of the project - who would go around loosely attaching tie wraps for subsequent attachment of the corals on the following Sunday. The volunteering on Saturdays involved mostly one single dive, where each volunteer worked individually on their cleaning task.

In contrast, Sundays consisted of lengthier volunteering sessions, commencing with boat departures between 8:00 and 8:30 AM and concluding between 1:00 and 4:30 PM, depending on the number of planting sites that needed to be attended to. Sundays required a collaborative effort between diverse volunteer groups, each with different roles assigned for the out-planting. Most volunteers operated in traditional diving buddy pairs, with one individual responsible for carrying baskets containing coral fragments, divided by genotypes, while the other affixed these fragments to the reef using pre-positioned zip ties. Consequently, specific genotypes were strategically placed within designated areas of the reef, requiring vigilant coordination between diving pairs. Similar to Saturdays, Sunday’s volunteering also maintained a pair of finishers, whose duties entailed securing coral fragments with additional zip ties and



You can see in the background buddy pair, one holding the basket, while the other is attaching the coral to the system.

trimming excess plastic. Often, when volunteers with other roles had finished their tasks, they would join in cutting off the excess plastic of the zip ties to get the work done more efficiently, highlighting the extent of collaborative effort on the Sunday dives.

All of this work was done by divers with diverse levels of experience, who had arrived at the project at different times in various ways, yet each individual contributed with equal dedication, enthusiasm, and commitment toward the shared goal of coral reef restoration. Since the coral planting phase represented a highly anticipated culmination of the project, the organizers put together a post-final-dive celebratory gathering wherein I was able to observe the gradual cohesion among participants into a community of environmentally driven subjects. Remarkably, in a short amount of time, we were able to plant over 1,400 coral fragments and even build an awareness of the reef health of the island (as pointed out by Jef, one of the master students during his interview). Interestingly, the enthusiasm for the work that we were doing did not decrease over time and every weekend I was met with the same excitement and passion for the

volunteering efforts as the first. The enduring enthusiasm underscores the collective commitment to the project's objectives, with volunteers consistently demonstrating eagerness to immerse themselves in underwater activities, irrespective of the duration spent on the boat.

Having spent time with them as a volunteer myself, I have been able to witness the ways in which people with very different backgrounds have come to be deeply impacted through this work. Some of the volunteers have a history of environmentally conscious action, while others are experiencing that through the Turning the Tide project. Throughout the volunteer engagement, several prominent themes emerged, illuminating the participants' deep-seated awareness of the interconnectedness between their actions and broader environmental consequences. The first thing that stood out to me was how the participants saw the work that they were putting in was entangled and intertwined into environmental consequences. There would often be conversations of returning to the island once the reefs had grown and how great it would be for future generations, demonstrating a conscious process of grasping environmental challenges and the impact of your actions. These deliberations underscored varying degrees of environmental consciousness among participants. Moreover, these discussions transcended the immediate tasks at hand, reflecting a broader awareness of environmental challenges and a commitment to mitigating them through everyday actions. Suggestions, such as utilizing metal zip ties proposed by one volunteer during post-activity interviews, underscored a collective ethos of combating plastic pollution and striving for environmental integrity. This illustrates how participants had a regard for the effect of their activities on the environment. Notably, these dialogues not only nurtured individual environmental subjectivities but also fostered an environmentally conscious community of volunteers similar to Agarwal's findings (2005). Additionally, the inclusion of diverse perspectives and histories, stemming from both local participants and

foreign volunteers, enriched the community's environmental awareness through environmentally oriented knowledge transfer, fostering a sense of unity and cohesion within the community as an environmental collective.

The autoethnography revealed that this experience had a profound transformative impact on me, not only in fostering a heightened environmental consciousness permeating my daily activities but also in instilling a sense of optimism for the future. While this is not something that I anticipated in preparation for my research, I found that my pessimistic view of the future of the planet slowly altered through witnessing the tangible efforts dedicated to environmental betterment instilled in me a newfound belief in the efficacy of collective action. This, I believe, is pivotal in my transformation into a more environmental subject, as it has motivated me to continue to work on similar projects in the future. This optimism was not limited to myself, and I often observed it among other volunteers on the boat. The minimal apprehension regarding the possibility of failure of the project was prominent, particularly in the project's early stages. Furthermore, updates shared via a group chat on coral monitoring post-planting reflected encouraging results, reinforcing this positive mindset. This optimism, further expanded my environmental subjectivity, as it gives me hope that the work we are doing will have a positive impact on the overall environment.

Interviews

The interviews revealed that the transformation into environmental subjects took time and experience, thus the experience from Turning the Tide had a varying impact based on the personal histories of the volunteers. These conversations revealed the true range of experience that the different volunteers had with environmental action, encompassing both theoretical knowledge of environmental issues and active participation in climate mitigation endeavors such as beach clean-ups, coral planting, and

reforestation efforts, correlated with their environmental subjectivities.

Notably, the two master's students from Wageningen University demonstrated their environmental subjectivity in how they related to the environment. Dana, one of the students, shared her deep connection with nature, emphasizing humanity's intrinsic dependence on the natural world:

"I think you are part of nature. I think it's crazy that people think that we are above nature because that's not true, you need nature, and we need nature, we are nature so..."

Her perspective stemmed from a lifelong engagement with environmental issues, including formal education on climate change and early involvement in environmental activities such as becoming a SCUBA instructor at a young age. As she mentioned herself *"I think [environmental action is] kind of a positive feedback loop, because it enhances, it strengthens 'ok you are actually doing something that makes you feel satisfied' you want to do more of it"* highlighting the continuous becoming of an environmental subject. Dana's narrative highlighted the transformative nature of environmental action through time. This position was shared by Jef, the second master's student. His upbringing was characterized by exposure to environmentally conscious practices instigated by his parents, through travel and participation in environmentally focused camps. For Jef, these early experiences laid the foundation for his environmental subjectivity, shaping his beliefs and actions toward nature conservation. Overall, Dana and Jef's narratives exemplify the profound impact of early exposure to environmental issues and consistent engagement in environmental action on the development of environmental subjectivity (Wells & Lekies, 2006).

In contrast to the experiences of the master students, some UA students volunteering for the project had shorter

histories of environmental actions especially underwater action influencing the transformational effect of Turning the Tide project. For instance, one of the volunteers had to learn to swim to participate in the program. During our interview, Stephen revealed that his journey toward developing environmental subjectivity began during his academic foundation year at the University of Aruba, approximately a year before his involvement in the volunteering project. It was during this period that he first became aware of environmental issues and developed a burgeoning passion for environmental protection. This newfound awareness prompted him to engage in various environmental activities through internships, which further nurtured his growing commitment to environmental conservation. This is a very different history to that of the master students, yet, as Dana articulated, Stephen's journey demonstrates how participation in environmental protection activities can initiate a positive feedback loop, fostering a deepening passion and commitment to environmental stewardship.

An intriguing theme that emerged from these discussions was the pivotal role of SCUBA diving within the Turning the Tide project. Notably, some volunteers cited diving as their primary motivation for joining the initiative. For those requiring certification, diving offered a novel opportunity to explore underwater environments in ways previously inaccessible to them. As one volunteer described, diving enabled them to immerse themselves in what felt like a "secret" world beneath the waves. Moreover, for seasoned divers, participation in the project provided an avenue to participate in a beloved activity at no cost, with the added benefit of contributing positively to environmental conservation efforts. This observation stood out to me given the inherently immersive nature of diving, which highlights embodied action due to limited communication and the unique sensory experience of underwater exploration. Therefore, SCUBA diving within this project becomes a very transformative experience in itself, and by adding environmental action, this embodied experience further

enhances the environmental subjectification through the immersive experience of it. While the impact of the Turning the Tide project may not have significantly altered the environmental subjectivity of highly experienced divers, it held profound implications for novices venturing into environmental engagement for the first time. Indeed, for these individuals, the project catalyzed future environmental endeavors, igniting a desire to continue supporting similar initiatives and actively participate in climate mitigation efforts communicated in the interviews. Furthermore, many volunteers of the University of Aruba expressed a commitment to maintaining their environmental engagement beyond the project's scope, indicating a sustained dedication to environmental stewardship. It is noteworthy that even volunteers less affected by the project had extensive backgrounds in environmental activism, suggesting that their participation reflects a continuation of pre-existing environmental subjectivities rather than a transformative moment.

Preliminary conclusion

In conclusion, this essay delves into the multifaceted journey of environmental subject formation through active engagement in conservation efforts, with a particular focus on the Turning the Tide project in Aruba. At its core, the research investigates the transformation of individual subjectivities into environmentally conscious agents, as articulated by Agarwal's concept of environmental subjectivity (2005). By analyzing the diverse experiences of volunteers involved in the project, this study illuminates the intricate interplay between personal histories, collective actions, and embodied experiences in shaping environmental subjectivities. The research underscores the transformative potential of everyday conservation practices in fostering environmental consciousness, as individuals navigate between personal beliefs and collective environmental endeavors. Drawing on Agarwal's notion of environmentality (2005) and a reflexive understanding

of Bourdieu's concept of habitus, the study highlights the reciprocal relationship between individual agency and environmental engagement (Sayer, 2010). Through a phenomenological lens, it explores how immersive experiences such as SCUBA diving intersect with environmental action to deepen individuals' environmental subjectivities. The findings reveal a spectrum of experiences among volunteers, reflecting diverse pathways to environmental subject formation. From seasoned environmental advocates to newcomers, each volunteer's journey is shaped by unique personal histories and levels of engagement with environmental issues. Nonetheless, the shared commitment to conservation efforts fosters a sense of community and collective awareness, transcending individual subjectivities to form an environmentally conscious collective.

Ultimately, this research contributes to our understanding of the nuanced processes involved in environmental subject formation, emphasizing the role of active engagement and collective action in shaping individual and collective environmental consciousness. By shedding light on the transformative power of everyday environmental practices, the study underscores the importance of fostering environmentally conscious communities for collective action toward mitigating climate change and safeguarding our planet's future.

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Pictures:

Credit to Tobia De Scisciolo for the images taken on the last day of coral planting: .