Journal of Sustainability Education
Vol. 9, March 2015
ISSN: 2151-7452

Teaching *Society and Climate Change* : Creating an 'Earth Community' in the College Classroom by Embodying Connectedness Through Love

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Abstract: This article attempts to fill a gap in the sociological literature by detailing how I taught a sociology course 'Society and Climate Change'. I discuss the theories I used to frame my course - Barry Commoner's laws of nature (1976) and Patricia Hill Collin's intersectionality (2009) - and then I present and analyze the pedagogical practices I used that attempted to put these two theories into practice by embodying connectedness through love, in order to create what David Korton refers to as an 'earth community' (2010).

Key Words: climate change, intersectionality, love, sociology, student engagement, sustainability

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There is no way to happiness, happiness is the way. The Buddha

Prologue

A class of about 35 students is told to clear their desks. The instructor announces that there will be a quiz on the assigned reading, David Korton's *The Great Turning: From Empire to Earth Community* (2010), in addition to a few others. They are handed a small sheet of questions and are asked to take out a piece of paper and to answer them to the best of their ability. The atmosphere becomes tense. In a class said to have no tests, there suddenly is one. Nevertheless, the students do as instructed and obediently answer the questions within the fifteen minutes allotted.

The students are now told by the instructor that they will participate in, what the Occupy Movement referred to as, a General Assembly (GA). Two students (who were asked beforehand) take leadership roles due to their past experience in a GA, having had prior classes with the professor. They begin to offer directions to gather everyone into a circle. The instructor steps back and the two students proceed to explain to the class what a GA is and how it is done. They invite other students to take on roles such as time keeper, stack keeper (in charge of the speaking order), and note taker. The agenda is to collectively answer the questions on the quiz while ensuring that everyone participates. Additionally, the answers are to be written up on the board so that they can be presented at the end to the instructor for feedback. The instructor then leaves the room telling them they have 30 minutes until she returns.

After 30 minutes the instructor returns to a board full of information. Selected students now stand at the board and present the class' answers. Others chime in with more details, creating an energetic dynamic. The instructor asks follow up questions for which answers are provided. Finally, the instructor asks if the students are satisfied with their answers, to which there is an affirmative general consensus. The instructor invites everyone to clap to signify the end of the GA. Class is subsequently over.

Two days later the class meets again. The topic of discussion is the comparison between the test, as an example of what Korton refers to as empire, and the GA, as an example of what he refers to as earth community. The students are then informed that the test was merely for them to viscerally experience the differences between a model of teaching based on hierarchy, control and separation and one based on equality, freedom and connection (in terms of individuals as well as ideas). Unanimously, the students expressed how the test felt individually oppressive and the GA felt collectively empowering.

Introduction: The Sociological Need

The above scene took place in my sociology course, *Society and Climate Change,* at the land-grant public university where I teach. After five years of requesting, I was finally able to teach a special topics course in the spring of 2013. As a full time professor, yet non-tenure track, I lack influence on my department's curriculum committee. Regardless, I interpret my experience as reflecting mainstream sociologists' avoidance to address the social aspects of climate change that some visionary sociologists have identified (Brechin, 2008; Catton and Dunlap, 1980; Grundmann & Stehr, 2010; Lever-Tracy, 2008, 2010; Nagel et al, 2009). Lever-Tracy (2008) explains this lag by emphasizing how, "for most sociologists…nature...was an unproblematic, stable background constant... The role of sociology was to study social processes, trends and contradictions independently from the natural sciences" (Lever-Tracy, 2008, p.454). Lever-Tracey insightfully recognizes that this conceptual separation has come to an end; "The timelines of nature are now converging with those of society in a mutual lockstep" (p.446).

To substantiate this observation, I refer to Earth scientist, Will Steffen's proposal that "the human imprint on the global environment has now become so large and active that it rivals some of the great forces of Nature in its impact on the functioning of the Earth system" (Steffen 2011, p.842). To characterize the extent human activities have had on the Earth's ecosystems, the popularized term, Anthropocene, is being used. In recognizing this Anthropocene epoch, author Clive Hamilton (2013) adds to Lever-Tracy insight in his article, "Climate Change Signals the End of the Social Sciences". Hamilton provocatively suggests that the Anthropocene "shatters the self-contained world of social analysis that is the terrain of modern social science" (p.1). Hamilton further contends that, "social sciences taught in our universities must now be classed as 'pre-Anthropocene'. The process of reinventing them — so that what is taught in our arts faculties is true to what has emerged in our science faculties— will be a sustained and arduous intellectual enterprise" (p.1).

The issue I seek to address in this article is exactly this process- of *reinventing* how to teach the 'social sciences'. I have begun to do this by theorizing and analyzing some examples of *how* I taught my *Society and Climate Change* course and *why* I chose to teach it the way that I did. My purpose in doing this is to provide a case study (Battisti, Grimm & Sipos, 2006) of what such a 'reinvention' could look like, in order to potentially reduce for those seeking to make informed and impassioned pedagogical *changes* the 'arduousness' of the 'intellectual enterprise'. Not only, has there been a lack of sociological scholarship on climate change, but also in doing research for the course and later for this article, I found nothing on how to reinvent our teaching in relation to society and climate change. This absence of sociological scholarship on pedagogy, society, and climate change, is ironic considering how mitigating climate change requires radically changing individual and collective thinking / behavior (McKibben 2012). Therefore, there is an urgent need to both educate students to the realities of the Anthropocene (as epitomized by anthropogenic climate change) and to educate ourselves, as educators. In addition to focusing on the problem, we must begin to put solutions based on ideas of sustainability into *practice*. To approach sustainability education in a nuanced manner requires, as Julian Agyeman, et al. (2003) argues, adding the term "just" in front of [the word] to ensure, "a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems" (p.5). Therefore, if we are to teach *about* a 'just sustainability', then we must teach in a manner where justice is not only a theoretical *end* but also a practiced *means* (Bell, 1997). And to do this we must embody Paulo

Freie's understanding of the "process of teaching as an act of love", as stated in an interview with Pepi Leistyna (Leistyna, 1999, p. 57).

Reinventing how we teach in order to change student's thinking and behavior is pressing as the percentage of CO2 in the atmosphere continues to rise (recently reaching an all time high of 400 PPM) (Samenow, 2013) and 2014 is declared the hottest year in recorded history. Since I have found minimal writings by sociologists on this topic of teaching about society and climate change, I seek to infinitesimally mitigate climate change by changing my own thinking and behavior, hence my teaching, and resultantly that of my students. Consequently, I have looked for guidance from others outside of sociology. For example, environmental educator, Edward T. Clark (1991), emphatically states that the purpose of environmental education, more than for any other subject, "is to change behavior" and to do so requires first changing a person's "mind-set" (p.41), i.e how they think. Key to changing mind-sets for Clark and other environmental educators, such as Noel McInnis (1979) and David Orr, (1991), is to help students gain an "understanding of the connectedness of things" (p.42). This was the ultimate goal of my class, beginning with a connectedness to themselves, as a part of nature (Carson, 1963), and to the whole community of life. Furthermore, this 'connectedness' is understood by me as emerging through *love*- the energetic force that binds life into a vibrant communion (Suzuki, 2007). My hope was that such an understanding of connectedness would lead to individual (both within and outside of class) and collective (both within and outside of class) behavioral changes that could ideally support a just sustainability. To achieve this goal I used select theories to inform and guide my pedagogical practice. In the spirit of 'connectedness' though, I will refer to the theories used as 'theoretical practices' and my practices as 'practiced theories' as a way of illustrating their inseparability. Although, the term 'praxis' could be used to represent this inseparability of theory and practice, I want in this case, to be able to indicate my prioritizing of one over the other, while still holding onto their connection.

My Pedagogical Goal: Creating an Earth Community

The theoretical practices that I used to structure my class, unbeknownst to my students, are based on my concurrence with Lever-Tracy's (2008) recognition that society and nature are now (have always been) in lockstep. To explore this 'lockstep', and to support the notion that sustainable societies must live within environmental limits, I linked two of Barry Commoner's four basic ecological laws (1971) with Patricia Hill Collins' (1990, 2009) discussion of intersectional analysis. My goal in structuring my practiced theories around these seemingly disparate theoretical practices was twofold. Firstly, I hold that they offer accurate models of how society (Collins) and nature (Commoner) actually function. Secondly, my hope was that if I could apply these theoretical practices (as opposed to just having my students read about them) I could help students experience the 'connectedness of things' through the creation of an "earth community"; a community lovingly created through social justice practice (Korton, 2010). Since Korton was one of the required books for the course, it was important that I facilitated the students to not only read and engage in critical thinking discussions about Korton, but that I also gave them opportunities to put the principles of earth community into practice within the classroom. Additionally, for both Collins and Commoner, the issue of social justice in *practice* is and was (Commoner died in 2012) paramount to their theoretical and activist work- so this connection to earth community seemed fitting in both theory and practice.

Korton defines earth community as "…the egalitarian democratic ordering of relationships based on the principle of partnership. The mentality of earth community embraces

the material sufficiency for everyone, honors the generative power of life and love, seeks a balance of feminine and masculine principles, and nurtures a realization of the mature potential of our human nature" (p. 20). In guiding my class towards the creation of an earth community, I emphasize that I was provided with an ethical framework that helped me answer the question "to what end?"(Palmer & Zajonc 2010, p.13). Parker Palmer and Arthur Zajonc ask this in relation to 'how-to-do-it' pedagogical questions. They themselves do not address such 'how-to-do-it' questions (as their work is more philosophically exploratory), but their recognition that teaching techniques and methods need to be evaluated in terms of larger end goals is important. As such, my overarching end goal was for students to experience what a more egalitarian and loving community *felt* like so they could decide for themselves if in intellectual, emotional and somatic ways it helped them to nurture a realization of their mature potential. In emphasizing these three areas -intellectual, emotional and somatic- my course embodied what Battisti, Grimm & Sipos, (2008) refer to as "transformative sustainability learning" (TSL) that incorporates "the organizing principle of head, hands and heart" (p.69), in order to foster learning integration and ultimately student transformation.

Additionally, since Korton proposes earth community as a better, more just and sustainable social model than the "Empire" (the term used by Korton) model in which we currently live, I wanted students to be able to have an opinion based on their own experiences in my class. This was necessary to create a contrast to the traditional banking method that they have likely have experienced. Students would then be able to analyze and evaluate what this micro-alternative (as in our class) to Empire in the classroom *was* like, in order to theorize what the macro-alternative *might* be like (as in a just sustainable society). By putting earth community into practice throughout the semester, I felt that my students would be engaged in active learning. Bonwell and Eison (1991) define this as "doing what we are thinking and thinking about what we are doing" (cited in Barkley 2010, p.6). In sum, students would be reading, analyzing, and discussing earth community while creating one by and for themselves. Finally, I wanted to make sure that as my students came to realize our dire ecological and social situation and thereby potentially experience the "pain that comes with paradigm shifts" (Milstein, 2011, p.6) that they would be able to resist falling into despair and / or depression (Blashki, et al, 2008; Doherty & Clayton, 20011). By having an emotional and social connection to their earth community class, it was hoped that students would surpass cynicism and be able to do what Joanna Macy and Molly Brown refer to as, the "work that reconnects" (1998). To do this 'work' required that they had the possibility of becoming intellectually, emotionally and physically (Battisti, Grimm & Sipos, 2008) open to their subjective experiences and to each other through an overall sense of personal and community empowerment that allows for interpersonal intimacy and therefore possibly conflict. Giving students classroom opportunities to navigate this potentially turbulent personal and social landscape in relation to confronting the climate crisis is vital, as Michael Maniates in "Teaching for Turbulence" (2013), so aptly recognizes.

My Theoretical Practice: Ecological Laws and Intersectional Analysis Equaled Holistic Education

Commoner's first ecological law is that "everything is connected" (1992). This observation is hardly new, in that many other peoples in human history have recognized this truth, such as Indigenous theories of interconnectivity and ancient Buddhist teachings. Additionally, quantum physics in relation to the Pauli exclusion principle asserts interconnectedness, in that no two identical particles may occupy the same quantum state

simultaneously, essentially meaning that the entire "universe is connected" (Cox, 2012). Despite the universality of Commoner's 'law', Western culture violates this law in the ways that it views and subsequently engages with the world.

To elucidate, in *You are an Environment* Noel McInnis (1972) addresses how our current educational methods teach students to "think the world to pieces", as in the practices of analysis, compartmentalization, reductionism…etc. Contrastingly, students are not taught to perceive "the planet as a gestalt"(p.10), in that everything is connected. McInnis therefore questions if there is a connection between "thinking the world to pieces" and "tinkering it to pieces", to the point where "we may become one of the parts not saved" (p.10). Given this possibility (and its much greater threat now 40 years later) McInnis urges that we begin teaching both how to separate and how to *connect*, echoing the work of Clark. David Orr (1991) also recognizes that the "modern curriculum" fragments "the world into bits and pieces called disciplines and subdisciplines..." causing, "most students [to] graduate without any broad integrated sense of the unity of things" (p.11).

Accordingly, the solution must be to change not only *what* we teach but more importantly *how* we teach. Since it is McInnis' opinion that no institution does more "to shape /misshape our perception of the world than our schools", then he is right in saying that, "the major burden for the creation of a planetary world view rests upon those who teach" (p.10). Hence my commitment to attempting to create an earth community using classroom activities designed to secure over the semester increasing levels of connection and intersection, both in our 'theoretical practices' and our 'practiced theories'.

The concept that 'everything is connected' applies to Collins' intersectional analysis in relation to the social categories of race, class, gender, sexuality ...etc. Although distinct, these categories are, nevertheless, inseparable and form a matrix of domination and privilege (Collins 1990, 2009). For example, it is not possible to *accurately* talk about a person's racial identity without also engaging with their social class, their gender …etc, because each aspect of our identities socially shape and inform each other aspect. Likewise, from an ecological perspective it is not possible to talk meaningfully about a tree without also talking about water, soil, air, sunlight ...etc. When linking the social sphere to the ecological, it is also not possible to *accurately* talk about humans without talking about trees given that the oxygen we breathe comes from them. Nevertheless, some humans have access to more trees and / or less pollution and better air than others, thus demonstrating how theorizing that 'everything is connected' socially and ecologically requires an intersectional analysis.

In further analyzing the link between 'everything is connected' and intersectionality it is important to note that when it comes to social interactions people don't play equal roles in a given social setting, such as with clean air. Most often some individuals are allotted privileges, while others are oppressed. These roles are connected, intersecting, and fluid, yet they can also be reversed depending on the context. This 'inequality' could be said to be the way of nature and therefore be seen as 'natural' as many societies have claimed, such as claiming white supremacy and male domination are natural. Yet, the social realm is *socially* created, meaning that how we organize ourselves is a collective, yet unequal, social choice in terms of how power is conceptualized and consequently distributed.

In this manner, classrooms, like the larger society, are sites of unequal intersecting identities that are constructed through the unequal social prisms of race, social class, sex /gender, sexuality, religion ...etc. Lisa Delpit (1995) recognizes this stating that, "issues of power are enacted in the classroom"(p.25). This power is embedded in a "culture of power" that relates to

"linguistic forms, communicative strategies, and presentation of self; that is ways of talking, ways of writing, ways of dressing and ways of interacting" (p.25). The dynamics that emerge from the enactment of this 'culture of power' are complex and potentially distressing, especially for those individuals or groups of individuals whose identities are at the bottom of the hierarchical structure. In the case of this 3000 level class with 45 students, I had a range of students from different races / ethnicities, social classes, nationalities, majors, knowledge and abilities with 25 women and 20 men. This created a fertile mix of intersecting group / individual identities involving all the issues of social power Delpit identifies, including my own as a white, middle-aged, middle-class, lesbian. To facilitate the creation of an earth community I took the position like Maurianne Adam et al (1997) that "people in dominant and subordinate groups have a critical role to play in dismantling oppression and generating visions for a more socially just future" (p.14). In the case of climate change I found this position especially relevant, in that the categories of 'dominant and subordinate' become increasingly complex when factors of global consumption, CO2 production, species extinction, ecosystem destruction...etc are included. From this expanded social / global / ecological perspective students' membership in any one category becomes more fluid, hence intersecting.

An example would be a female student from Senegal who, in terms of race and gender, as well as being an immigrant and English as a Second Language speaker, no doubt experiences intersecting oppressions. Nevertheless, she became adamant about only drinking water from plastic bottles when we were discussing the fact that, according to *The Water Project*, "it takes over 1.5 million barrels of oil to meet the demand of U.S water bottle manufacturing. This amount of oil far exceeds the amount needed to power 100,000 homes for a year" (The Water Project). Obviously, seen separately her potential experiences of intuitional racism / sexism …etc can't be compared to her consumption of plastic water bottles. However, taking an everything is connected / intersectional approach, the oil used to make the bottles is linked to war, US imperialism, racism, environmental destruction, privatization of natural resources, social inequality and of course climate change. It was this level of connection that I sought to have students recognize, while seeing themselves in terms of their identities / their behaviors / their beliefs …etc- as inescapably and complexly connected. As Robert Bullard (1993) aptly observes "social inequality and imbalances of power are at the heart of environmental degradation, resource depletion, pollution and even overpopulation. The environmental crisis can simply not be solved effectively without social justice" (p.23), which, I would add, must be practiced fundamentally through love.

For instructors like myself, who seek to counter the social inequalities in their classrooms in order to enact a classroom culture of democracy and social justice (hooks, 1994, 2003), it becomes vitally important to be aware of these ongoing intersecting dynamics, to ensure we continually invite the living energy of the class to move towards a harmonious state of balance and egalitarian inclusion; one that includes student's heads, hands and hearts (Battisti, Grimm & Sipos, 2008) and spirits; hence all their *intersections*. Classrooms cultures that prioritize social justice can then act as practical models for students to not just visualize / theorize, but to actually *experience*, 'a more socially just future', as in an earth community. As Collin's says of intersectional analysis, that "it is ...committed to claiming the much-neglected space of praxis" (2009, p.vii). This 'space of praxis' is the praxis of social justice (p.iix). Thus, this 'space of praxis' can also exist in our classes if we as instructors are committed to actively creating authentic earth communities.

Another way I applied these two theorized practices was to ensure I invited my students to engage intellectually, emotionally, physically and spiritually. Balancing the practice of critical thinking (through readings, essay writing, journaling, created group activist projects…etc), I also invited them to engage emotionally (they kept reflective journals, wrote poems and did art that were shared, worked collaboratively…etc), physically (we connected with our breath, did yoga poses, movement activities and were physically active in campus community through activist projects) and spiritually (we questioned social meanings, read Daniel Quinn's *Ishmael and* David Suzuki's *Sacred Balance* and on the last day of class we had a Native American Pipe Ceremony). The classroom activities throughout the semester sought to holistically and intersectionally engage students (Clark, 1991), while recognizing that all these aspects are also influenced by our intersectional social identities.

For instance, expressing emotions is a highly gendered act in that females are socially encouraged to do so while males are not. Finding ways to invite male students to publically share emotions is more challenging than doing so for female students. Furthermore, the gender and race of the instructor plays a role, as does the ratio of males to females in the class, and their corresponding racial identities and social class backgrounds...etc. Consequently, the levels of intersection are complex and on-going, in that as the individuals of a class come together in physical space, all these factors interact in socially predictable and unpredictable ways that can be both messy and harmonious, divergently and simultaneously, requiring moment by moment energy and relational maintenance. As William Ayers (2004) concurs, teaching is "idiosyncratic and improvisational...as inexact as a person's mind or a human heart, as unique and as inventive as a friendship or a love affair, as explosive and unpredictable as a revolution" (p.11). In short, it is *alive*.

My Practiced Theory: Creating an Earth Community

McInnis (1972) distinguishes between a compass and a map in terms of the goal of his book. McInnis, states that his book is a "compass" in that "it points to some ways of teaching / learning...It does not provide a 'lesson plan'" (p.14). Likewise, what follows are ideas and activities that I used in my class (and some I use in all of my classes as I will discuss) based on the theoretical practices presented. I also incorporate other methods due to my commitment to using the Socratic Method, popular education (Freire 1970), holistic education (Clark, 1990), and feminist critical pedagogy (hooks 1994, 2003). I draw from my own self-knowledge, affirming Parker Palmer's view that, "When I do not know myself, I cannot know who my students are…When I do not know myself, I cannot know my subject—not at the deepest levels of embodiment, personal meaning….Good teaching requires self-knowledge" (p.3). And self-knowledge, for me requires, in addition to constant critical reflection, recognizing "our earthly identity" (Morin, 1999, p.129; Morin, 2003) and our intersecting social ones as well.

Social theorist Dorothy Smith (1974) wrote "The only way of knowing a socially constructed world is knowing it from within. We can never stand outside of it" (p.22). In relation to teaching, this means that we can never be outside that which we are teaching. Furthermore, connecting it to Palmer's observation, the depths to which we can know -- at the deepest levels of embodiment-- what we are teaching and how we are teaching it are based on the extent to which we know ourselves holistically. By sharing examples of my pedagogical practice I do not want to encourage imitation (assuming others find my activities useful) but rather inspiration; inspiration for others to engage in self-discovery; the fuel for exploratory and creative pedagogical practices. Instead of providing easy to follow methods, I offer some points

of departure that lead, I believe, along paths that we as educators, students, and 'earth people' need to go; paths that aim to build connections based on mutual love and respect for ourselves, each other and all life. To honor the connection making process, I present topics / activities in chronological order, with the most interactive and student directed activities occurring at the end of the course due to our / their increased levels of knowledge, possibly of themselves and certainly of each other.

Grades and Motivation

Alfie Kohn in his chapter "From Degrading to De-grading" (2004) insightfully states that if you want to know what kind of a teacher someone is ask them how they feel about grades. For me grades have been an ongoing struggle in terms of finding a path that enables my students to be empowered in relation to their grades, as opposed to the grade assignment being solely in my hands. I do not give tests but rather have students complete journals, papers, and collaborative projects. Students assess themselves using rubrics that are in what I call my 'Course Guidebook'. My motto in class is that no grade is fixed, that it is "'in pencil'", until a student is satisfied or he / she no longer chooses to add to their work, to encourage them to do "their best work" (Thayer-Bacon 1996, p.337). To help justify my unusual position on grades I invite all my students to read in the first week of class Kohn's essay so they can experience for themselves throughout the semester his research that shows how grades consistently "reduce students' interest in the learning itself", "reduce students' preferences for challenging tasks" and "reduce the quality of students' thinking" (75-6). In addition, students read the chapter "Carrots and Sticks" from Daniel Pink's book *Drive: The Surprising Truth about Motivation* (2010) in which he describes research that demonstrates a connection between an individual's level of freedom in relation to a task and their level of intrinsic, as opposed to extrinsic, motivation. By combining these two readings at the beginning of my courses, I hope to offer my students a critical lens to look at the relationship between how they are taught and how and why they potentially do or don't learn, and more importantly what they do and don't learn.

In terms of trying to create an earth community and to cultivate the kinds of behaviors needed to address personal and social transformation towards a larger scale earth community, I believe weaning students away from grades and from relying on extrinsic motivators is essential. We can't expect students to exhibit behaviors based on the values of earth community if we do not affirm those values consistently within our classes. Additionally, testing and fixed grades generally produce anxiety in students which is unproductive, for as biologist Bruce Lipton argues, "When you're frightened you're dumber" (Lipton 2005, p.150). Since my goal was to have students intellectually and emotionally open to the distressing news of climate change, without losing momentum to 'do the work that reconnects', it would have been counter-productive to use the evaluative methods of Empire that reinforce extrinsic motivation and promote anxiety.

Without fail the validity of these two readings is affirmed throughout the semester as students begin to rediscover their innate intelligence and creativity that has been silenced by the educational system. As creativity author Sir Ken Robinson asserts in his 2006 TED Talk and my students concur, schools do kill creativity but they don't have to. There are other ways.

The Art Show

To help illustrate readings done on agriculture and the emergence of gender and class roles [from Korton (2010), Clive Pointing's *Green History of the Earth* (1991), Daniel Quinn's *Ishmael* (1995), as well as Jared Diamond's "The Worst Mistake in Human History" (1999)], I

showed the film *Earth and The American Dream* (Couturié, 1992). This film is as emotionally disturbing as it is beautiful. I therefore invited the students to make their reactions tangible, by creating pieces of art / poetry / performance for the following class. I told students that they should only come if they are willing to share and that they would not be marked absent if they didn't come. My reason for doing this was to ensure that those who came wanted to be there and those who for whatever reason were not able to share would not be penalized. This policy I think creates a more relaxed atmosphere and surprisingly there were no more absent than usual. The students who chose to come put their art / poetry on the walls (including a written description that explained relationship between the art and the film / readings), or if they made sculptures set them on desks. Students then were invited to view each other's work. After, we sat in a circle and invited questions / comments on other people's, as well as the reading of any poems (four poems were shared). The atmosphere was relaxed and students shared their comments, feedback, critical analysis and emotions.

My motivation behind this activity was to increase the possibility for an integrated change by allowing student's new knowledge to be intellectually and emotionally processed through a highly personal and creative means. As Lisa Kretz explores in "Climate Change: Bridging the Theory-Action Gap" (2012), such changes require not only knowledge but more importantly "emotion" (p.15). Kretz discusses the work of Goralnik and Nelson, "Framing a Philosophy of Environmental Action: Aldo Leopold, John Muir, and the Importance of Community" (2011) to emphasize the "vital role for care and a sense of community" in order "to instigate action" (p.15) among students. In fact, based on their work in environmental education, Goralnik and Nelson (2011) affirm "students neither care about nor retain the knowledge they gain unless they are first emotionally and ethically engaged by place, community, and content" (p.183). Sharing their thoughts and emotions through creativity helped students to create such an 'intersecting' and 'connected' sense of engagement. To collectively physically affirm this sense of engagement we ended class with a group yoga pose- tree pose- by connecting hands in a circle and achieving balancing by supporting one other. Inevitably there were some students, in particular males and more specifically athletes who took a joking and what could be described as an attitude based on the notion that "I'm too cool for this" but I have learned to laugh with students' need to resist (Shor, 1996), as opposed to finding their behavior disruptive. This approach allowed them to still be part of the earth community, while it respected their apparent need to maintain an external identity stance based on constructs of masculinity.

The Problem Tree

Students were introduced to the problems associated with climate change by the following readings: McNall's *Rapid Climate Change* (2011), McCright and Dunlap, "Cool Dudes: The Denial of Climate Change among Conservative White Males in United States" (2011), chapters fromFoster's *The Vulnerable Planet* (1994), Hulme, *Why We Disagree about Climate Change* (2009), John Urry, *Climate Change and Society* (2011), as well as Korton and Quinn, and online news articles and links. In response to the readings, the students were gathered in small groups to create a visual representation of the issues by creating 'A Problem Tree'. Problem trees are a Popular Education method based on the work of Freire (Ferreira & Ferreira 1997; Tuck, 2009) which allows participants to collectively engage in conceptual mapping. Problem trees represent the complexity of an issue in an accessible, graphic and participatory way; the roots (root causes, ideologies /systems), trunk (supporting beliefs and practices/ intuitions), leaves (resulting social / individuals symptoms) and fruit (ways symptoms

are reproduced and / or change) symbolize a given social problem. David Sousa in *How the Brain Learns* (2001) presents "concept mapping", such as the problem tree, as a way to teach conceptual relationships while practicing multiple learning modalities- verbal, visual, physical, interpersonal, analytical, emotional, creative and spiritual. Additionally, problem trees do not conclude with any specific answers, especially in relation to climate change, since the emphasis is relational. Without reaching an agreed upon conclusion, students were led to have in depth discussions about the problems as they tried to make collective decisions as to where to put what and why. Once all the trees were displayed and discussed, I invited students to recognize the diversity of trees and to see diversity as a key element of a just and sustainable society. Yes, some were more complex /thoughtful but all brought something to the collective analysis. My approach is that even when students 'fake' interest and do such creative group activities in potentially inauthentic ways (as in they haven't done the readings and they don't really know what the issues are but are just going along with what others are doing) I know they are still learning (intellectually, emotionally, physically, spiritually) because they are actively engaged.

General Assemblies

During the 2011 - 2012 Occupy Wall Street movement, General Assemblies (GA) were used as the primary form of decentralized group communication and collective decision making. Dan Baerrett's article, "Intellectual Roots of Wall St. Protest Lie in the Academy" (10/16/11) in *The Chronicle for Higher Education,* attributed the concept of GAs to David Graeber, a British anthropologist, who researched the people of Betafo in Madagascar. The Betafo practice, according to Graeber, involves "consensus decision-making". Graeber felt this method needed to be applied to any revolutionary struggle to unify the means and the ends.

Intrigued, I decided to start using GA in my classes. In particular, this class' emphasis on earth community was an appropriate match for further exploring GAs. The first GA we did was (as described in the beginning) when the students were first given a mock quiz and then invited to engage with the same material but in a collective, non-evaluative way. Throughout the semester we had numerous GA's on varying topics, including one on climate change and the intersections of race / class and gender. Readings included, Robert Bullard *Race, Place and Environmental Justice After Hurricane Katrina* (2009) and Christian Parenti's *Tropic of Chaos: Climate Change and the New Geography of Violence* (2011). My role in the GA's varied- some I would participate in, others I would either observe or I would leave the room to later have the students report back. To facilitate a GA, agendas can be given and or generated by the students. In GA's associated rules (for example all must participate; must answer a question / questions; must come to a consensus regarding X...etc.) can also be imposed, depending on the overall objective / needs of the class. All methods are valuable and the variety allows for different types of engagement, although the overall purpose is to practice decentralized and democratic communication and collective decision-making. As a class activity, it invites students to horizontally connect and to struggle with complex and intersecting ideas and points of view. Additionally, this practice speaks to Maniates call that Environmental Studies and Science (ESS) programs "teach for turbulence" by "expos[ing] students to more-contentious environments and create classroom moments that foster strategic thinking… " (p.266). Students therefore get to practice how to publically put forth an opinion based on social research, while listening to and possibly confronting the views of others. They also get to explore and experience the practices of collaboration, consensus decision-making, equity and democracy, in order to synchronize the means with the social justice ends.

As with the Problem Tree example, obviously there will be students who participated in the GA who didn't do any of the readings but who nevertheless are still able to learn from others both in terms of the readings and in the democratic engagement. As with the opening example of the GA for students to merely be a part of the experience is to invite *experiential* learning.

Movement as Connection / Intersectionality

At the end of the semester we read David Suzuki's *Sacred Balance* (2009) and a section from Julian Agyeman et al *Just Sustainabilites: Development in an Unequal World* (2003). These readings elucidated the ideas of: earth community, 'everything is connected' and 'intersectionality', and related to the first class, in which students were asked to hold their breath as a way of demonstrating their dependence on the environment and as to see themselves as 'an environment'(McInnis, 1972). Class was held outside and in small groups students were asked to pick a key idea that had stood out for them in Suzuki and to transform it into a silent movement / dance piece that the audience would interpret. There was only one rule: the students had to touch each other at some point in their performance as a way of symbolizing their connectivity and the need for any model of sustainability to be inclusive and just. At first, students were very uncomfortable with the idea of moving / dancing. Each group I met with, asked what the other groups were doing, to gauge, I assumed, their level of risk. In fact, as with the group yoga pose this activity caused quite a few of the males to be very uncomfortable. However, once groups began exchanging ideas and moving around, their hesitations generally shifted to enjoyment- a phenomenon also observed by movement educator Julie Henderson (1999). One group personified air by holding hands and dancing around trees, while another group created a chain of DNA that involved all students. Engaging student's bodies to perform conceptual ideas of connection and intersection is supported by Howard Gardner's work on kinesthetic intelligence (1983), as well as work by Carolina Mancuso (2007). Mancuso recognizes that although "using our bodies is something that rarely occurs in classrooms" (p.13) that synchronized, "our minds and bodies form the fertile ground of our spiritual beings" (p.21). I will never forget the sight of some of my male students running around outside connected to each other and pretending to be oxygen. The shared laughter and general fun that emerged from the groups, who now were part of an earth community, overtook the insecurity and fear of looking 'stupid'. Therefore, by inviting students to collectively move their bodies as a means of conveying to others their insights into how 'everything is connected' and intersectionality, they were able to creatively express and embody the complexity of being alive.

Final Group Projects

At the end of the semester, students were required to do a small group project. The projects involved sharing something that they had learned in the class with people outside of it. For guidance, we watched sections from the film, *Fierce Green Fire* (Kichell 2012) and read writings from: Bill McKibben's *Fight Global Warming Now* (2007), Derric Jensen' *Endgame* (2006) and about a piece about environmental activist Nia Martin-Robinson in Courtney Martin's *Do it Anyway* (2010).

Student groups explored many paths- all of which took courage and unity. Projects included: a presentation at a local high school, gardening with middle-schoolers at an after school program, making a video of public interviews about climate change, organizing a campaign to walk / bike on campus instead of using cars / buses, doing an artistic mural on campus, setting up a carbon footprint counting booth...etc. The point of allowing the students to engage in some form of self-conceptualized activism was to counter, what futurist Eckersley

(2008) points to as, apocalyptic narratives. Eckersley proposes that activism creates a "sense of empowerment and possibility in the collective identity, unity, and mutual support it provides" (p.39). I confirm this view from classroom and personal experience. This again doesn't mean that all the group projects were of equal quality in term so intellectual rigor or creativity or evidence of thoughtful work (in fact some weren't) but as with the other activities all groups had some insightful piece that when added to the others helped create a mosaic of learning.

Closing Pipe Ceremony

On the last day of class after reading Suzuki's (2009) book, I invited a friend (who is a Pipe Carrier [Wood, 2000]) to come and share a pipe ceremony with the class. We sat outside in a circle, and began with a discussion of Suzuki's final affirmation that everything is connected. As Suzuki (2009) states, "We can begin to reconnect ourselves to everything on Earth, recreating a complete worldview by establishing or rediscovering rituals and ceremonies that celebrate those linkages and our communities" (p.301).

Consequently, I felt the pipe ceremony would be a catalyst to both put the ideas of connection, intersectionality and social / ecological justice into practice, and conclude our time as an earth community (we would meet one more time for students to do their final group presentations in lieu of a final exam). For the ceremony, I asked students to choose a favorite quote from Suzuki and to write it out and decorate it as a gift for someone else in the class. I too, had a gift for each student - a small stone upon which I had written the word 'Unless', in reference to *The Lorax* (Seuss 1971 / DePatie-Freleng Enterprises 1972), which we had watched and discussed earlier in the semester.

In a Pipe Ceremony, recognition is given to the six directions, to the tobacco, and to each other. The overall message is that, as a collective, we are sharing an experience of the sacred; however each individual chooses to define this term. Students were welcome to share in the pipe or to just pass it on without smoking; the emphasis being on our collective intention to be present with each other. After the passing of the pipe, students were invited to read their quotes and to gift them to the person next to them, and share anything else that they wanted. Lastly, I gifted the stones and thanked all for walking on the learning journey with me. I wished them well in their future learning experiences, whatever form they choose to study. Many of them wished me well back and seemed to genuinely be touched and transformed. Others perhaps not but then as teachers we can only plant seeds, we can't control when or how they sprout.

Conclusion

In *The End of Nature* (1997), Bill McKibben identifies his concept, 'the end of nature' clarifying that it is not the end of the natural world, but rather, the end of "a certain set of human ideas about the world and our place in it" (p.7). I connect this much needed approaching end in terms of Western culture's ideas about the world to another much needed one; the end of teaching in a manner that, regardless of the content, including environmental education (Gruenewald 2004), still perpetuates not only the theory and practice of 'thinking the world to pieces' (McInnis 1979), but consequently of 'tinkering' our students, our classes, ourselves, our communities and, consequently, the world to pieces. This endemic fracturing contributes to / is created I believe by a "culture of fear" (Fisher 201, p.247, Palmer 2007), that infects ourselves and the social / environmental world we are creating; one that is experiencing ecological collapse (UN Report, 2012).

As I reflect back on this last class, rooted in all the classes that came before it, through the lens of visual memory and re-created narrative, what stands out for me now was the feeling

that can only be described as love. This does not mean that to orchestrate and participate in, for example, the Pipe Ceremony, did not also evoke fear in me; fear that I was overstepping the social line in terms of how a professor *should* act or what a last day of a college class *should* be like …etc. In addition, there was the deeper fear, identified by Palmer in *The Courage to Teach* (2007), as our fear of "the live encounter" (p. 38). The 'live encounter' is when "… the other is free to be itself, to speak its own truth, to tell us what we may not wish to hear" (p.37-8). Feeling this deeper fear is in fact the measure I use to gauge my willingness and ability to share power with my students, to put earth democracy into practice. Had I given into this fear then and throughout the semester, I would have been shutting "down those 'experiments with truth' that allow us to weave a web of connectedness" (Palmer 2007, p.36). Instead I drew upon Michael Fisher's (2013) indigenous teachings that specifically address fearlessness. Fisher exhorts us to "embrace fearlessness …[as it] ...is the path to …sacred ground" (p.248); that place, where for me, everything is felt and understood as being lovingly connected. This perhaps above all was a lesson I sought to teach by practicing it myself – that "by transcending fear …one matures and feels less and less motivated by fear and more and more motivated by a radical trust in the universe" (p.248). 'Fearlessness and radical trust', and I would add, *love*, are I believe, essential for any progressive social / personal change to transpire. Thus, what was most challenging for me (and perhaps for all educators as Palmer discusses), was not my students or this class but myself, as in my fears of the 'live encounter', as well as my fears of my own fearlessness.

What I have attempted to offer in this piece is an example of 'revisioning' *how* we can teach, *what* we can teach in order to open up the possibilities of how and what our students learn. This new vision is necessary in order to address, through the creation of earth community, the urgent need for more connected and intersectional theoretical practices and practiced theory. By doing so, we (as educators / as students / as people) will not only become more integrated within ourselves but also in relation to each other and all of life. As bell hooks affirms in *Teaching Community* (2003), echoing Fisher, we need to move with fearlessness through the fear perpetuated by our Empire culture. We need to find "what connects us, reveling in our differences; this is the process that brings us closer, that gives us a world of shared values, of meaningful community" (p.197) and that will lead us to a more sustainable, hence connected and loving existence. To allude to the Buddha's teachings, there is *no way* to teaching 'everything is connected' and intersectionality as theoretical models in the hopes of creating a just earth community, rather by putting them into practice *is the way*. Likewise to go from the Anthropocene to what, physician Bryan Furnass (2012) has termed the Sustainocenean (an epoch Daniel Nocera (2012) defines as akin to a 'just sustainability'), the way demands that the values of social and ecological justice on the personal and collective levels are not only the goals but *are* the way in and of itself.

Postscript: On the day of the final when student groups did their presentations I handed out invitations for students to write to my Chair to ask that I be allowed to teach this course again. I am happy to say some did and as a result I not only taught this course again in the spring of 2014 but it has now become a permanent course, as has another new one "Sustainable Societies". It is hoped students will take "Society and Climate Change" in the fall and "Sustainable Societies" in the spring.

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Vol. 9, March 2015
ISSN: 2151-7452