

Radical hope: Transforming sustainability

Laila M. Strazds
University of Toronto
laila.strazds@mail.utoronto.ca

Abstract: While sustainability is often perceived from a framework of fear, emergent understandings of sustainability are rooted in pedagogies of hope. In particular, radical hope, or critical-transformative hope, is transforming sustainability. Radical hope is contextually dependent and is made meaningful when in action. Collective movements such as the *buen vivir* social movements and transition movements are realizations of radical hope in praxis. Overall, this paper aims to demonstrate that through a multiplicity of movements, sustainability is in the process of continual becoming.

Keywords: transformative learning, sustainability, hope, transformative pedagogy, social change

“To be truly radical is to make hope possible, rather than despair convincing.”

– Raymond Williams, *Resources of Hope*

Our current zeitgeist is one of fear. Within the literature on sustainability, most articles begin with apocalyptic rhetoric on the ‘doom and gloom’ or ‘wickedness’ of climate change. The same rhetoric is used in the media, by people in positions of power, and by sustainability educators. Understanding sustainability from a framework of fear instils an almost paradoxical sense of urgency and paralysis for action. We let fear foreshadow our future and we become complacent with our existing actions. In this context, hope becomes radical. This paper will review the concept of sustainability, the pedagogies of hope, and the multiplicity of movements that are transforming the way we perceive and practice sustainability. The goal of this paper is to demonstrate that sustainability, as rooted in a framework of hope, is radically in the process of continual becoming.

Sustainability

Sustainability is a broadly defined and often contested concept. The concept of sustainability emerged in 1972 with the publication of *Limits to Growth*, a book put together by an informal international organization called the Club of Rome. While the book did not explicitly use the word ‘sustainability’, they suggested exponential growth would drive “the world system toward the limits of the earth and ultimate collapse” and a “transition from growth to global equilibrium” is needed (Meadows & Club of Rome, 1972, p. 184). In 1987 the term ‘sustainability’ became popularized in the Brundtland report, *Our Common Future*, when it was framed in reference to ‘sustainable development’. In essence, sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (p. 24). Since its conception, ‘sustainability’ has taken on countless other meanings that do not exclusively focus on the underlying assumption of growth.

Emergent understandings of sustainability have begun to focus on systems integration and interconnections (Liu et al., 2015). Concepts such as ‘regenerative sustainability’ are reframing our understanding from the dominant harm reduction approach, as rooted in a framework of fear, toward a more holistic restorative approach, which recognizes our agency to do good (Robinson & Cole, 2015). Burns suggests sustainability is coming to mean:

“taking a stance toward making changes and finding solutions to address complex cultural and ecological problems. Sustainability can also be understood as transformative personal and communal shifts to ways of being and acting that critically question dominant systems and are more relational, interconnected, place based, and in balance with ecological systems.” (2015, p. 260)

Some authors suggest we should be moving ‘beyond sustainability’ and be building resiliency (Edwards, 2010; Zolli & Healy, 2012; Benson & Craig, 2014). Resilience is suggested to recognize current adversities, better encompass progressive thinking, and focus on adaptation through diverse and flexible choices. Moore (2016), however, argues a change in focus from sustainability to resiliency would likely

not produce a shift in thinking but would rather further confusion and disagreement on the matter causing a delay in needed action.

Many of these emergent understandings have been grouped together and thought of as contributing to ‘pragmatic sustainability’, which entails “constructing collaborative stories about the future” through “concrete actions” (Moore, 2016, p.10). While different definitions of sustainability are emerging within the literature, conceptualizations tend to be relational, collaborative, and encourage a diversity of approaches. The concept itself is transforming to encompass an essence of transformative process—wherein sustainability is less of an imagined distant place, and more so what we are collectively creating.

Hope

Within emergent conceptualizations of sustainability, there is an understanding that future conditions will maintain complexity and uncertainty (Pereira, Hichert, Hamann, Preiser, & Biggs, 2018). Uncertainty implies a certain neutrality—it does not suggest the future will be either positive or negative, rather it implies our actions have the capacity to determine its direction. Solnit (2016) suggests it is this uncertainty of not knowing what will happen, or how and when, that is the space for hope. Shade (2001) argues having hope within uncertainty is not unrealistic positivity or optimism—rather hope fuels meliorism; a belief in our agency to make the world a better place in spite of the turbulence we experience. As Orr (2007) suggests, “authentic hope ... is made of sterner stuff than optimism.... hope requires courage to reach farther, dig deeper, confront our limits and ... work harder.... optimism does not require much effort because one is likely to win anyway” (p. 1393).

Thomas Aquinas (1485/1912) suggests hope is a wilful habit of mind. He suggests that hope is a disposition, a commitment, and a rational stance; that if we maintain this perseverance of attitude, it will help us attain our ‘good’ by taking direct action. Hope is complex, multifaceted, and experienced in many ways, however in practice, it requires “seeing the world as it is, without presumption, naivety, fantasy or despair” (Van Hooft, 2014, p. 137). Given our current zeitgeist of fear and our disposition to think in terms of dichotomies, we often imagine sustainability as a distant utopia. However philosophical dichotomies often result from a denial of context (Dewey, 1931/1985). As Solnit (2016) suggests, “this is an extraordinary time full of vital, transformative movements that could not be foreseen. It’s also a nightmarish time. Full engagement requires the ability to perceive both” (xii). Authentic hope makes space for the good and the bad; it acknowledges both reality and possibility (Lertzman, 2012). Authentic hope does not distance, de-emphasise, or deny the seriousness of the problem (Ojala, 2017).

Sustainability is in the process of becoming and it is through pedagogies of hope that its realization is taking place. Kelsey (2016) suggests that “the underrepresentation of hope in the literature is surprising, in light of ... the necessity for hope to motivate us to act in ways that help bring about the possibility of a better future” (p. 26). Webb (2013) theorizes there are five pedagogies of hope: patient, critical, sound, resolute and transformative. While these five pedagogies are useful in different contexts, both critical hope and transformative hope have an important role to play in relation to sustainability. This paper will propose that critical-transformative hope, or rather radical hope, is necessary for transforming our understanding of sustainability.

Critical hope.

Critical hope questions the completeness of the present—it challenges our current climate of fear by critically engaging with existing adversity. Critical hope longs for a future characterized by a “negation of the negative” and this longing is often expressed in the form of protest and resistance (Moltmann, 1970, p. 114; Webb, 2013). While this mode of hoping is future oriented, it does not explicitly imagine an end goal, instead it aims to lead to a “place where there is no darkness” (Orwell, 1949, p. 107). Giroux and McLaren (1991) argue, “without a vision of the future—without asking ‘empowerment for what?’—critical pedagogy becomes reduced to a method for participation” (p. 158). Maria Popova (2015) suggests, “critical thinking without hope is cynicism, but hope without critical thinking is naïvete”. Critical pedagogies are necessary for transforming sustainability however they are not sufficient. “Critical pedagogies [need to be] rooted in an ethic of care [to be] an education in hope, a hope for a better tomorrow for all human beings” (Monchinski, 2010, p. 160). Critical hope challenges our understanding of the present as well as our perception of what is possible—it simultaneously empowers us to acknowledge adversity and to have the audacity to do something about it.

Transformative hope.

Webb (2013) proposes that whether or not we believe in the possibility of transformation, is not determined by evidence, but through the inspiration we obtain when we dream of a goal. The objective of transformative hope is a “shared utopian dream” and “a sense that the human future can be made different from the human past” through collective human effort (Rorty, 1998, p. 106; 1999, p. 208). For Gustavo Gutiérrez (2001), “hope makes us radically free to commit ourselves to social praxis, motivated by a liberating utopia ... and our hope not only frees us for this commitment, it simultaneously demands and judges it” (p. 223).

While transformative hope is also considered to critically negate the present, the focus of this form of hope is goal-directed social praxis. The process of envisioning an alternative future is meant to inspire action to create what is dreamt of. The concept of utopia, as the alternative future or goal, is thought to be the driving force behind transformative hope.

The role of utopia.

The classical concept of utopia is often intertwined with the concept of dystopia; not only are they considered to be opposites, but a state of utopia is often thought to be achieved after the crisis and collapse of a dystopian state, or an ‘apocalypse’. Hall (2009) suggests apocalyptic movements have been a ‘transformative force’ throughout history such as during the Crusades, the French Revolution, and modern communism. Naomi Klein (2017), one of the leading activists for the climate justice movement, suggests “the worst is yet to come”. This sort of rhetoric utilizes the same fear tactics she critiques and does not inspire action for creating utopia, rather it suggests waiting for it. Harvey (2000) suggests the classical concept of utopia is “unachievable or, if achieved, unstable and still in transition to something else yet to be defined” (p. 189). While apocalyptic movements instil a sense that “history as we know it

[will] come to an end”, as Baudrillard suggests, the end of history is an illusion (Hall, 2009, p. 134; 1992).

More recent conceptualizations of utopia describe it as a guiding direction rather than as an end goal (Giroux, 2007). Solnit (2016) suggests we should be rejecting “the static utopia in favour of the improvisational journey” (p. 92). This change in conceptualization stems from not knowing how to make utopia possible, as there is “no clear sense of how to get from the actual world to these theoretically possible worlds, and thus no clear idea of what to work for” (Rorty, 1989, p. 182). Harvey (2000) suggests we need to be rooted in context and embrace the dialectic because we are “embedded and limited by the institutional worlds and built environments we have already created” (p. 159). Both Foucault and Unger (1973 & 1987) propose that alternatives should materialize from engaging with existing social processes and institutions. They propose that institutional change goes hand in hand with changing ourselves. Levitas (1993) suggests that if agencies and processes of change are not grounded in the present, “utopia moves further into the realms of fantasy” and transformation becomes no longer feasible (p. 265).

Scruton (2010) suggests the most important criticism of utopian thought is that it purses a single and complete solution to eliminate the problem of conflict and it “destroys the institutions that enable us to resolve our conflicts one by one” (p. 71). He suggests solutions are “discovered case by case... [and] are rarely envisaged in advance, but steadily accumulate through dialogue and negotiation. They are a deposit laid down by the ‘we’ attitude, as it unfolds through the norms of mutual dealing” (p.71). Lasting change occurs gradually and democratically. If a single collective utopian vision were to be made, one would need to question the dimensions of power at play during the decision-making process and whether or not the vision aligns with every diverse perspective. Transformative hope inspires action by way of the visioning process—if not everyone is directly included in this process, then action will be limited to a select few. It is through experiencing a sense of agency that we are intrinsically motivated to action—for “when people are engaged in a collective struggle that they define themselves they also decide what and why they need to learn” (Miles, 1996, p. 278). In order to engage with transformative hope, and have everyone actively creating sustainability, there needs to be a multiplicity of movements; a multiplicity of flexible goals that are rooted in practice and are determined by those in action.

Radical hope

Radical hope can be thought of as the intersectional space between critical and transformative hope. Within the literature on pedagogy, the terms critical and radical are often used interchangeably with ‘radical’ meaning to get to the root of systems and make changes and ‘critical’ meaning to analyze what underlies social practices (Lange, 2013). While both terms acknowledge current context, the term radical upholds the need for action in order to address that which requires changing. Paolo Freire (1994) in his book *Pedagogy of Hope* states:

The idea that hope alone will transform the world, and action undertaken in that kind of naïveté, is an excellent route to hopelessness, pessimism, and fatalism. But the attempt to do without hope,

in the struggle to improve the world, as if that struggle could be reduced to calculated acts alone, or a purely scientific approach, is a frivolous illusion. To attempt to do without hope, which is based on the need for truth as an ethical quality of the struggle, is tantamount to denying that struggle in one of its mainstays. The essential thing ... is this: hope, as an ontological need, demands an anchoring in practice. (p.2)

Radical hope, or critical-transformative hope, may be considered as being a middle mode between two extremes. While critical hope is rooted in context and challenges dominant oppressive systems, it does not propose “a point of departure” for building something better (Coté, Day, & de Peuter, 2007, p. 14). Transformative hope on the other hand proposes “a point of arrival” that is meant to motivate collective action (Coté et al., 2007, p. 324). The concept of utopia plays a significant role in transformative hope however it can contribute to a framework of fear and deny the need for multiple forms of immediate action. Radical hope lies between critical and transformative hope—it is rooted in context, provides a point of departure, and is realized through action. Within radical hope, the strengths of both critical and transformative hope make up for the weaknesses in the other.

Radical hope in praxis.

Praxis, as defined by Paolo Freire, is ‘informed action’ (1970). It involves reflecting on practice and then acting on that reflection to create change or “to transform... structures radically” (Freire, 1970, p. 126). Radical hope in praxis is the critical-transformative action that is transforming sustainability and is iteratively informed by the discourses that guide them.

Within a framework of fear there is a tendency to urgency for sustainability transformation. We propose the need for an entirely new system and romanticize revolution. Alphonso Lingus (as cited in Zournazi, 2003, p. 38) suggests “we really have to free the notion of liberation and revolution from the idea of permanently setting up some other kind of society”. Change happens gradually and through the efforts of many—and perhaps the best way to challenge a monolithic force is not “with a monolithic movement but with multiplicity itself” (Solnit, 2016, p. 100). Sharma (1994) suggests that it is part of the people’s struggle to not wait on revolution; that those who are being oppressed are already actively creating the change they wish to see in this world.

With urgency for sustainability transformation, the concept of transformative learning is often used flippantly. Transformative learning involves a deep structural shift, or transformation, of perspectives and can “foster an individual’s understanding of the larger political and economic forces in which they exist” (Lange, 2013, p. 110). While Mezirow (1991) suggests transformative learning can be either sudden or incremental, it often carries connotations of occurring immediately. When it comes to complex relational concepts such as sustainability, learning is built up gradually and it is an inherently incremental and ongoing process. Lertzman (2012) suggests we need to be meeting people where they are in this process, not where we want them to be. Radical hope, as pedagogy, can take people through this transformative learning process for sustainability. Radical hope creates a cycle of creation—as we take action, our capacity builds, we learn from our practice, and we are able to produce more action.

Based on emergent understandings of sustainability, transformative action is generally interconnected, relational, and collaborative. Within the literature, the sustainability-related movements that are transforming our world are being called ‘alternative pathways’ (Hess, 2016, p. 231). These movements, which are informal networks of collective action, may be considered as forms of social movements (Della Porta & Diani, 2006). Social movements foster learning both inside and outside the movements and can be considered as ‘pockets of hope’ (Hall, 2006; Miles, 1996). Within the literature on collective hope for sustainability, it is suggested “a shift must occur from individual dreaming and critique” to “learning about and tackling wicked problems as a community of practice” (Williams, 2015, p. 16; McClam et al., 2015, p. 1).

Different sustainability movements are rooted in different pedagogies of hope. There are movements rooted in critical hope, such as the global movement of resistance against fossil fuels known as Blockadia, or the Occupy movement that targets rising economic inequality (Klein, 2014). Further, there are those rooted in transformative hope such as the increasing trend for greater participatory visioning processes and projects (Bai et al., 2016; McPhearson, Iwaniec, & Bai, 2016; Pereira et al., 2018). While there are countless sustainability-related movements, there are emerging movements of radical hope that are a collection of many movements, which will be referred to as collective movements within this paper. Although radical hope can be a useful tool to engage in praxis, it is important to note that not all tools are useful everywhere. Hope ‘looks and behaves’ differently across cultures, and radical hope as a pedagogy, will not be applicable in every context (Lopez, Snyder, & Pedrotti, 2003, p. 103). This suggests, as there is a need for a multiplicity of movements, there is also a need for a multiplicity of hope. Two examples of collective movements for sustainability are the *buen vivir* social movements and the transition movements.

Buen vivir social movements.

Buen vivir is a discourse consisting of Latin American indigenous concepts that express what it means to ‘live well’. *Buen vivir* social movements are structured by this discourse and seek to embody it in practice. To live well is not “a linear progression into the future but an ongoing process always in the making” (Deneulin, 2012 p. 3). To live well is to recognize and relate to nature as a subject, to live in harmony with others, and enable them to live in dignity. *Buen vivir* is rooted in context and does not separate the material and spiritual dimensions of life (Deneulin, 2012).

Buen vivir movements began as indigenous efforts against Western development and capitalism due to the negative social and environmental impacts they were having (Gudynas, 2011). The movements brought so much momentum that the discourse of *buen vivir* became integrated into the constitutions of Ecuador and Bolivia (Deneulin, 2012). This integration however has been critiqued as being cooptation given unsustainable development and extractivism is still strongly supported by both governments (Solon, 2018). This form of cooptation by those in positions of power can be seen as a way to maintain existing power relations. As Lohmann (1990) suggests, “never underestimate the ability of modern elites to work out ways of coming through a crisis with their power intact” (p. 82).

Buen vivir is both critical and transformative—it negates Western development and it explores alternative ways of regenerative living (Houtart, 2011). It is equally influenced by its critiques and by the underlying indigenous ways of being that propose harmony and collaboration (Singh, 2018). It is important to note that *buen vivir* does not attempt to return to a past way of living, but rather it aims to continuously create an alternative future.

Buen vivir incorporates a mixing of both indigenous and non-indigenous components. For example, the concept of rights for nature, of legally recognizing the intrinsic value of nonhuman beings, emerged from mixing Western environmental discourses with Andean indigenous concepts of human-nature assemblages. The legal frameworks that were introduced for nature's rights vary in South American countries given the different indigenous cultures that have influence in each place. This variation illustrates that there is no '*buen vivir* blueprint' that can be applied in multiple contexts. Within *buen vivir*, a large number of local changes occur as change is rooted in the landscapes and histories of a particular place (Gudynas, 2018). This example of using the strengths of both indigenous and non-indigenous discourses is similar to the Mi'kmaw concept *Etuaptmum*, translated as 'Two-Eyed Seeing'. Two-Eyed Seeing suggests learning to see from one eye with the strengths of Indigenous knowledge and the other eye with the strengths of Western knowledge. It proposes the knowledges be weaved together for the benefit of all, rather than one being integrated into or dominated by the other (Bartlett, Marshall & Marshall, 2012). Further, Vanhulst and Beling (2014) propose that many other emerging discourses resonate with *buen vivir* and the intersectional space between them can have a synergistic effect in transforming sustainability. They propose that through interweaving the *buen vivir* discourse with other multicultural expressions of critical-transformative discourses there can be movement toward transforming sustainability. This movement, or the action informed by these discourses, can be thought of as the direct realization of radical hope in praxis.

Transition movements.

Research on sustainability transitions emerged in the late 1990s and expanded the concept of 'transition' to describe economic, social, and ecological changes and their interconnections (Martens & Rotmans, 2005; Bijker, 1997; Rotmans & Van Asselt, 1999). This concept of transition in relation to societal transition or sustainability transformation suggests many current societal structures are unsustainable and transformative changes are necessary to create sustainability (Chaffin et al., 2016). The term transition implies passing from one state to another, and transformation implies the action of changing form. Within the literature, there is a preference for 'transition' over 'transformation'. This trend in terminology is likely due to the literature being based on initial conceptualizations of sustainability rather than emergent understandings. As articulated throughout this paper, sustainability is in the process of continual becoming—we do not yet know what the 'end state' will be.

Within the transitions literature, four frameworks have emerged on "how to promote and govern a transition toward sustainability" (Markard, Raven, & Truffer, 2012, p. 955). These include the multi-level perspective on sociotechnical transitions (Geels, 2002; Geels & Schot, 2007; Smith, Voß, & Grin, 2010),

strategic niche management (Kemp, Schot, & Hoogma, 1998; Smith, 2007; Raven & Geels, 2010), technological innovation systems (Jacobsson & Johnson, 2000; Hekkert, Suurs, Negro, Kuhlmann, & Smits, 2007; Bergek, Jacobsson, Carlsson, Lindmark, & Rickne, 2008), and transition management (Rotmans et al., 2001; Kern & Smith, 2008; Loorbach, 2010). As demonstrated by these frameworks, the most prominent conceptualizations of transitions are highly embedded with technological meaning. Unlike *buen vivir* movements and discourse, there is a discrepancy between the literature and the initiatives being done in practice for transition. While the literature increasingly focuses on sociotechnical transitions, in practice, many of the initiatives are more transformative than transitional and are being done at the grassroots level (Seyfang & Haxeltine, 2012; Hölscher, Wittmayer, & Loorbach, 2018). Transition movements then, are the connected transformative actions occurring in practice for sustainability. One of the most well known ‘transition’ initiatives is the *Transition* movement founded by Rob Hopkins. The movement began with a localized plan for energy democracy, which grew into a *Transition* model, and then spread into a global network of *Transition* initiatives (Power, 2015). *Transition* is thought to take a “whole of systems approach”, that is localized and builds resilience (Hopkins, 2011, p. 73). *Transition* places an emphasis on engaging with communities to enact a centralized vision of change, rather than being critically rooted in local contexts (Power, 2015). The *Transition* movement exists as a sort of branded blueprint that is grounded in transformative hope.

‘Off-brand’ transition movements exemplify radical hope in praxis—they are critical of current unsustainable models and actively create alternatives. Transition movements are not exclusively bottom-up innovations—forms of ‘transformative governance’ can also contribute to transforming sustainability. An example of transformative governance is the implementation of sustainable water resource management structures in Australia (Farrelly & Brown, 2011). Other examples of transition movements include forms of energy democracy, complementary currencies, and the food movement. Energy democracy movements involve two fundamental principles: firstly, they work toward keeping fossil fuels in the ground, and secondly, they implement renewable energy sources that encourage collective control, universal access, and social justice (Transnational Institute, 2016). Complementary currencies, otherwise known as alternative or community currencies, are currencies or mediums of exchange that complement the dominant form of currency and can only be used within a specified community or region. These currencies began as a reaction to the inequity and instability of the dominant monetary system and are meant to strengthen local economies and lower greenhouse gas emissions by keeping trade local (Kim, Lough, & Wu, 2016). The food movement is a collection of many food-related initiatives and movements that are transforming the dominant unsustainable agricultural system to be more equitable and local. Examples of these radical initiatives include community gardens, farmers’ markets, seed exchanges, forest gardens, community kitchens, guerrilla gardening, and the fair trade and organic food movements (Roberts, 2013).

Within the sustainability and transitions literature, the role of experimentation and the potential for scaling up alternative initiatives can be considered as realizations of radical hope in praxis. Experiments tend to be more iterative, participatory, and promote learning and innovation (Bulkeley & Castán Broto, 2013). The need for experimentation in transforming sustainability is founded on Dewey’s philosophy that change takes more than a single approach (Hildén, Jordan, & Huitema, 2017). One of the strengths of collective movements is its makeup of multiplicity. However the meaning of multiplicity can change as initiatives are rapidly scaled up and out. For example, it can be argued that transition movements have, or

will, become a ‘monolithic’ movement. A centralized monolithic movement has the potential to leave select groups at the margins and can lose its strength and creativity from its loss of diversity. While scalability can contribute to larger transformative changes, it is important to note that not all experiments can successfully be scaled up given the potential for increased risk at different scales. For example, the rapid unregulated expansion of biofuels, which can work well at a small scale, has had negative environmental and social impacts when implemented at larger scales (Phalan, 2009).

Conclusion

Transforming sustainability with radical hope demands we do not become jaded by the current climate of fear. It demands we have the tenacity to create the world we want to live in, a world that is possible. Sustainability is in the process of continual becoming and it is through pedagogies of hope that a more relational, interconnected, and resilient future is made possible. However, inspiration exists not only in acts of creation—radical hope is also rooted in critical pedagogies. Hope can rise out of injustice as a sort of collateral hope. And it has been through hope, that we have made progress for justice in the past. Hope has been heard in the speeches of Barack Obama, Harvey Milk, Vaclav Havel, Martin Luther King Jr. and many more. When we inspire hope, we inspire action, and we see change. Recognizing injustice and being critical of the current context questions the use of fear in motivating environmental action.

Fear invokes feelings of ‘fight or flight’—in the realm of climate change, continuous ‘fighting’ results in burnout and ‘fleeing’ is expressed as a mental state of repression, distraction, or denial (Hathaway, 2017). Further, the shock tactics utilized within a framework of fear tend to “distance and disempower individuals in terms of their sense of personal engagement with the issue”, and are thought to undermine trust, which is essential for collective action (O’Neill & Nicholson-Cole, 2009, p. 374–375). Within this same framework of fear, environmentalists often blame those who have been disempowered and use shame or guilt to try and motivate action. However shame “easily slides into resentment” and produces “defensive rigidity” when someone’s way of life is called into question (Roszak, 1995, p. 15–16). Approaching sustainability with radical hope critiques the current framework of fear and confronts the systems that induce cognitive dissonance. When we acknowledge the source of the fear we experience, we can acknowledge our capacity to create change and begin to actively transform our world around us.

Sustainability requires a multiplicity of movements, a decentralized approach to make it more difficult to disregard. There is no one route to transforming sustainability. We can begin to understand the interrelations of sustainability through direct action, relational ontologies, critical pedagogies, emergent environmental discourses, and many more. The pathways we take in this life are all different. Part of the process is in finding our own path—we transform sustainability when our motivation is implicit. Another part of the process is in merging our paths with others, for it is through collective action that our hope is sustained.

References

- Aquinas, T. (1912). *The Summa theologica of St. Thomas Aquinas*. London, England: Burns Oates & Washbourne. (Original work published 1485)
- Bai, X., van der Leeuw, S., O'Brien, K., Berkhout, F., Biermann, F., Brondizio, E. S., ... Syvitski, J. (2016). Plausible and desirable futures in the Anthropocene: A new research agenda. *Global Environmental Change*, 39, 351–362.
- Bartlett, C., Marshall, M., & Marshall, A. (2012). Two-eyed seeing and other lessons learned within a co-learning journey of bringing together Indigenous and mainstream knowledges and ways of knowing. *Journal of Environmental Studies and Sciences*, 2(4), 331–340.
- Baudrillard, J. (1992). *The illusion of the end*. Stanford, CA: Stanford University Press.
- Benson, M., & Craig, R. (2014). The end of sustainability. *Society and Natural Resources*, 27, 777–782.
- Bergek, A., Jacobsson, S., Carlsson, B., Lindmark, S., & Rickne, A. (2008). Analyzing the functional dynamics of technological innovation systems: A scheme of analysis. *Research Policy*, 37, 407–429.
- Bijker, W. E. (1997). *Of bicycles, bakelites and bulbs: Toward a theory of socio-technical change*. Cambridge, MA: MIT Press.
- Bulkeley, H., & Castán Broto, V. (2013). Government by experiment? Global cities and the governing of climate change. *Transactions of the Institute of British Geographers*, 38(3), 361–375.
- Burns, H. (2015). Transformative sustainability pedagogy learning from ecological systems and Indigenous wisdom. *Journal of Transformative Education*, 13, 259–276.
- Chaffin, B. C., Garmestani, A. S., Gunderson, L. H., Benson, M. H., Angeler, D. G., Arnold, C. A., ... Allen, C. R. (2016). Transformative environmental governance. *Annual Review of Environment and Resources*, 41(1), 399–423.
- Coté, M., Day, R., & de Peuter, G. (2007). *Utopian pedagogy: Radical experiments against neoliberal globalization*. Toronto, Canada: University of Toronto Press.
- Della Porta, D., & Diani, D. (2006). *Social movements: An introduction* (2nd ed.). Oxford, England: Wiley-Blackwell.

- Deneulin, S. (2012). *Justice and deliberation about the good life: The contribution of Latin American buen vivir social movements to the idea of justice*. Bath, England: University of Bath.
- Dewey, J. (1985). Context and thought. In J. A. Boydston (Ed.), *John Dewey: The later works, 1925–1953* (pp. 3–21). Carbondale: IL: Southern Illinois University Press.
- Edwards, A. E. (2010). *Thriving beyond sustainability: Pathways to a resilient society*. Gabriola Island, Canada: New Society Publishers.
- Farrelly, M., & Brown, R. (2011). Rethinking urban water management: Experimentation as a way forward? *Global Environmental Change, 21*(2), 721–732.
- Foucault, M. (1973). *The order of things: The archaeology of the human sciences*. New York, NY: Vintage Books.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Continuum International Publishing Group Inc.
- Freire, P. (1994). *Pedagogy of hope*. New York, NY: Bloomsbury.
- Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy, 31*, 1257–1274.
- Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy, 36*, 399–417.
- Giroux, H. (2007). Utopian thinking in dangerous times: Critical pedagogy and the project of educated hope. In M. Cote, R. Day & G. de Peuter (Eds.), *Utopian pedagogy* (pp. 25–42). Toronto, Canada: University of Toronto Press.
- Giroux, H., & McLaren, P. (1991). Radical pedagogy as cultural politics: Beyond the discourse of critique and anti-utopianism. In D. Morton & M. Zavarzadeh (Eds.), *Theory/pedagogy/politics* (pp. 152–186). Chicago, IL: University of Illinois Press.
- Goodman, A. (Interviewer) & Klein, N. (Interviewee). (2017). *The worst is yet to come with Trump, so we must be ready for shock politics* [Interview transcript]. Retrieved from Democracy Now! website: https://www.democracynow.org/2017/6/30/naomi_klein_the_worst_is_yet
- Gudynas, E. (2011). Buen vivir: Today's tomorrow. *Development, 54*(4), 441–447.

- Gudynas, E. (2018). *Roundtable on Vivir Bien*. Retrieved from <https://www.greattransition.org/roundtable/vivir-bien-eduardo-gudynas>
- Gutiérrez, G. (2001). *A theology of liberation*. London, England: SCM Press.
- Hall, B. (2006). Social movement learning: Theorizing a Canadian tradition. In T. J. Fenwick, T. Nesbit, & B. Spencer (Eds.), *Contexts of adult education: Canadian perspectives* (pp. 230–238). Toronto, Canada: Thompson Educational Publishing.
- Hall, J. (2009). *Apocalypse: From antiquity to the empire of modernity*. Oxford, England: Wiley.
- Harvey, D. (2000). *Spaces of hope*. Los Angeles, CA: University of California Press.
- Hathaway, M. D. (2017). Activating hope in the midst of crisis: Emotions, transformative learning, and “The Work That Reconnects.” *Journal of Transformative Education*, 15(4), 296–314.
- Hekkert, M., Suurs, R. A. A., Negro, S., Kuhlmann, S., & Smits, R. (2007). Functions of innovation systems: A new approach for analysing technological change. *Technological Forecasting and Social Change*, 74, 413–432.
- Hess, D. (2016). Social movements, civil society, and sustainability politics. In S. Moore (Ed.), *Pragmatic sustainability* (pp. 230–249). London, England: Routledge.
- Hildén, M., Jordan, A., & Huitema, D. (2017). Special issue on experimentation for climate change solutions editorial: The search for climate change and sustainability solutions – The promise and the pitfalls of experimentation. *Journal of Cleaner Production*, 169, 1–7.
- Hölscher, K., Wittmayer, J. M., & Loorbach, D. (2018). Transition versus transformation: What’s the difference? *Environmental Innovation and Societal Transitions*, 27, 1–3.
- Hopkins, R. (2011). *The Transition companion. Making your community more resilient in uncertain times*. Devon, England: Green Books.
- Houtart, F. (2011). *El concepto de Sumak Kausay (Buen vivir) y su correspondencia con el bien común de la humanidad*. Retrieved from <http://repositorio.flacsoandes.edu.ec/handle/10469/3523>
- Jacobsson, S., & Johnson, A. (2000). The diffusion of renewable energy technology: An analytical framework and key issues for research. *Energy Policy*, 28, 625–640.

- Kelsey, E. (2016). Propagating collective hope in the midst of environmental doom and gloom. *Canadian Journal of Environmental Education, 21*, 23–40.
- Kemp, R., Schot, J., & Hoogma, R. (1998). Regime shifts to sustainability through processes of niche formation: The approach of strategic niche management. *Technology Analysis & Strategic Management, 10*, 175–195.
- Kern, F., & Smith, A. (2008). Restructuring energy systems for sustainability? Energy transition policy in the Netherlands. *Energy Policy, 36*, 4093–4103.
- Kim, S. M., Lough, B., & Wu, C. (2016). The conditions and strategies for success of local currency movements. *Local Economy, 31*(3), 344–358.
- Klein, N. (2014). *This changes everything: Capitalism vs. the climate*. New York, NY: Simon & Schuster.
- Lange, E. (2013). Interrogating transformative learning: Canadian contributions. In T. Nesbit (Ed.), *Building on critical traditions: Adult education and learning in Canada* (pp. 107–116). Toronto, Canada: Thompson Educational Publishing Inc.
- Lertzman, R. (2012). Researching psychic dimensions of ecological degradation. *Psychoanalysis, Culture & Society, 17*, 92–101.
- Levitas, R. (1993). The future of thinking about the future. In J. Bird, B. Curtis, T. Putman, & L. Tickner (Eds.), *Mapping the futures: Local cultures, global change* (pp. 257–266). New York, NY: Routledge.
- Liu, J., Mooney, H., Hull, V., Davis, S. J., Gaskell, J., Hertel, T., ... Li, S. (2015). Systems integration for global sustainability. *Science, 347*(6225), 1258832.
- Lohmann, L. (1990). Whose common future? *The Ecologist, 20*(3), 82–84.
- Loorbach, D. (2010). Transition management for sustainable development: A prescriptive, complexity-based governance framework. *Governance, 23*, 161–183.
- Lopez, S. J., Snyder, C. R., & Pedrotti, J. T. (2003). Hope: Many definitions, many measures. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 91–106). Washington, DC: American Psychological Association.

- Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, *41*(6), 955–967.
- Martens, P., & Rotmans, J. (2005). Transitions in a globalizing world. *Futures*, *37*, 1133–1144.
- McClam, S., Cass, A., Connors, C., Frawley, D., Heald, S., McPartlin, A., ... Papernik, L. (2015). Collaboratively creating and sustaining hope and agency. *Journal of Sustainability Education*, *10*, 1–18.
- McPhearson, T., Iwaniec, D. M., & Bai, X. (2016). Positive visions for guiding urban transformations toward sustainable futures. *Current Opinion in Environmental Sustainability*, *22*, 33–40.
- Meadows, D. H., & Club of Rome. (1972). *The limits to growth: A report for the Club of Rome's project on the predicament of mankind*. New York, NY: Universe Books.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.
- Miles, A. (1996). Adult education for global social change: Feminism and women's movement. In P. Wangoola & F. Youngman (Eds.), *Toward a transformative political economy of adult education: Theoretical and practical challenges* (pp. 277–292). DeKalb, IL: LEPS Press, Northern Illinois University.
- Moltmann, J. (1970). *Religion, revolution, and the future*. New York, NY: Scribner.
- Monchinski, T. (2010). *Education in hope: Critical pedagogies and the ethic of care*. Bern, Switzerland: Peter Lang Inc.
- Moore, S. (Ed.). (2016). *Pragmatic sustainability*. London, England: Routledge.
- Ojala, M. (2017). Hope and anticipation in education for a sustainable future. *Futures*, *94*, 76–84.
- O'Neill, S., & Nicholson-Cole, S. (2009). Fear won't do it: Promoting positive engagement with climate change through visual and iconic representations. *Science Communication*, *30*, 355–379.
- Orr, D. (2007). Optimism and hope in a hotter time. *Conservation Biology*, *21*(6), 1392–1395.
- Orwell, G. (1949). *Nineteen eighty-four*. London, England: Secker and Warburg.

- Pereira, L. M., Hichert, T., Hamann, M., Preiser, R., & Biggs, R. (2018). Using futures methods to create transformative spaces: Visions of a good Anthropocene in southern Africa. *Ecology and Society*, 23(1), 19.
- Phalan, B. (2009). The social and environmental impacts of biofuels in Asia: An overview. *Applied Energy*, 86, S21–S29.
- Popova, M. (2015). *Hope, cynicism, and the stories we tell ourselves*. Retrieved from <https://www.brainpickings.org/2015/02/09/hope-cynicism/>
- Power, C. (2015). *Transition: A force in the Great Turning?* (Unpublished doctoral dissertation). University of Western Sydney, Australia.
- Raven, R., & Geels, F. W. (2010). Socio-cognitive evolution in niche development: Comparative analysis of biogas development in Denmark and the Netherlands (1973–2004). *Technovation*, 30, 87–99.
- Roberts, W. (2013). *The no-nonsense guide to world food*. Oxford, England: New Internationalist.
- Robinson, J., & Cole, R. (2015). Theoretical underpinnings of regenerative sustainability. *Building Research & Information*, 43(2), 133–143.
- Rorty, R. (1989). *Contingency, irony, and solidarity*. Cambridge, England: Cambridge University Press.
- Rorty, R. (1998). *Achieving our country*. London, England: Harvard University Press.
- Rorty, R. (1999). *Philosophy and social hope*. London, England: Penguin.
- Roszak, T. (1995). Where psyche meets Gaia. In M. Gomes, A. Kanner, & T. Roszak (Eds.), *Ecopsychology: Restoring the earth, healing the mind* (pp. 1–20). San Francisco, CA: Sierra Club Books.
- Rotmans, J., Kemp, R., & van Asselt, M. (2001). More evolution than revolution. Transition management in public policy. *Foresight*, 3, 15–31.
- Rotmans, J., & Van Asselt, M. (1999). Perspectives on a sustainable future. *International Journal of Sustainable Development*, 2, 201–230.
- Scruton, R. (2010). *The uses of pessimism: And the danger of false hope*. New York, NY: Oxford University Press.

- Seyfang, G., & Haxeltine, A. (2012). Growing grassroots innovations: Exploring the role of community-based initiatives in governing sustainable energy transitions. *Environment and Planning C: Government and Policy*, 30(3), 381–400.
- Shade, P. (2001). *Habits of hope: A pragmatic theory*. Nashville, TN: Vanderbilt University Press.
- Sharma, B. D. (1994). On sustainability. In M. Tobias & G. Cowan (Eds.), *The soul of nature* (pp. 271–278). New York, NY: Continuum.
- Singh, N. (2018). *Roundtable on Vivir Bien*. Retrieved from <https://www.greattransition.org/roundtable/vivir-bien-neera-singh>
- Smith, A. (2007). Translating sustainabilities between green niches and sociotechnical regimes. *Technology Analysis & Strategic Management*, 19, 427–450.
- Smith, A., Voß, J.-P., & Grin, J. (2010). Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. *Research Policy*, 39, 435–448.
- Solnit, R. (2016). *Hope in the dark* (3rd ed.). Chicago, IL: Haymarket Books.
- Solon, P. (2018). *Vivir Bien: Old cosmovisions and new paradigms*. Retrieved from <https://www.greattransition.org/publication/vivir-bien>
- Transnational Institute. (2016). *Towards energy democracy: Discussions and outcomes from an international workshop*. Amsterdam, Netherlands: James Angel.
- Unger, R. (1987). *False necessity: Anti-necessitarian social theory in the service of radical democracy*. Cambridge, England: Cambridge University Press.
- Van Hoof, S. (2014). *Hope*. New York, NY: Routledge.
- Vanhulst, J., & Beling, A. E. (2014). Buen vivir: Emergent discourse within or beyond sustainable development? *Ecological Economics*, 101, 54–63.
- Webb, D. (2013). Pedagogies of hope. *Studies in Philosophy and Education*, 32(4), 397–414.
- Williams, D. (2015). Regenerative hope: Pedagogy of action and agency in the learning gardens. *Journal of Sustainability Education*, 10, 1–19.
- Williams, R. (2016). *Resources of hope: Culture, democracy, socialism*. London, England: Verso Books.

World Commission on Environment and Development. (1987). *Our common future*. Oxford, England: Oxford University Press.

Zolli, A., & Healy, A. M. (2012). *Resilience: Why things bounce back*. New York, NY: The Free Press.

Zournazi, M. (2003). *Hope: New philosophies for change*. New York, NY: Routledge.



Image for the article