

CHANGE AND THE CLIMATE CRISIS: ALIGNING URGENCY AND AGENCY

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RESPONDING TO THE CLIMATE CRISIS

Opinions of the enormity of the climate crisis range from President Trump's denial (Jacobson, 2016) to the belief that we are experiencing the sixth mass extinction (Ceballos, Ehrlich, & Dirzo, 2017). In November 2016 on New Zealand television, Emeritus Professor Guy McPherson stated he could not imagine a human left on the planet in ten years, and that was three years ago (Newshub, 2016). More recently he has stated, "To put it simply, our fate as a species is sealed. We're headed for extinction in the very near term" (McPherson, 2018, para. 20). These perspectives are poles apart on a continuum of opinion. The deniers are not motivated to reduce climate crisis drivers, while others on the continuum face the dilemma of how to respond.



Figure 1. Climate crisis response continuum.

We can put aside the change response of two poles of the continuum, the 'do nothing' of the deniers, or those that fund denial campaigns, and the 'game over' response of those who believe in imminent extinction. What of the majority on the continuum who have varying degrees of concern, and might want to respond and act? Their responses might range from a sense of powerlessness to a strong motivation for action borne out of deep concern. Clear pathways of action are obfuscated by disputes over both the severity of the crisis and disagreement about remedies (Lovins, 2018).

HISTORICAL RESPONSES

Reflecting on our history illustrates the diverse ways that our forebears responded to existential crises revealing a confused response. The Bubonic plague that killed half of the European population (Routt, 2008) generated a range of responses from flagellation as an act of contrition to consumerist hedonism and fear (Johnson, 2018).

The HANDY study (Motesharrei, Rivas & Kalnay, 2014) identified collapses in our history precipitated by factors such as population decline, economic, intellectual and literacy decline, and political dynamics. The two underlying causes were resource depletion and the economic stratification of society (Mouhot, 2011). Those collapses were localised, or regionalised. However, we now face potential global socioeconomic collapse.

There are some commonalities in peoples' responses to existential threats across centuries. We consume resources to the point of collapse, favouring short-term consumption and immediate need (self-gratification) over conservation. Our bias is to ignore serious threat and sometimes respond by heightened consumption. Complex interlinked systems developed in the industrial age have reframed us with cultures of consumption. This cultural software (Covey, 2004) entangles us in webs of significance (Geertz & Darnton, 2017) that trap us in behaviours that deliver results that no one wants (Scharmer & Kaufer, 2013).

ACHIEVING CHANGE

Rao, Sandler, Kelleher and Miller's (cited in Green, 2018) domains of change model uses two continuums; individual to system level, and formal to informal to illustrate factors that support complex change. The two material factors are policy and resources. The other two are social norms and individual consciousness and capability, thus reinforcing the significance of individual and societal foundations of change.

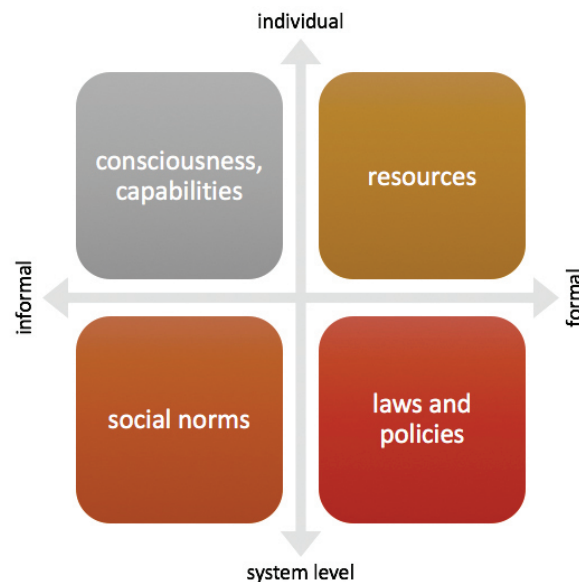


Figure 2. Domains of change model (Green, 2018).

Much of the technology we need to mitigate climate change is either available now or in development (Lovins, Wallis, Wijkman, & Fullerton, 2018). The greater challenge is to shift our thinking and behaviour. Green (2018) illustrates change dynamics with the movement to abolish slavery in the 18th and 19th centuries, providing an encouraging example of how people extended empathy across racial and geographic boundaries, and abandoning the concept or need for slaves as a cheap human energy source (Rifkin, 2016). The emerging industrial revolution provided a new alternate energy source and aided that transition, including powering the printing of pro-abolition pamphlets (Mouhot, 2011).

AGENCY, URGENCY AND CHANGE DYNAMICS

An individual's agency is critical to shift both social norms and individual consciousness and capability. Hope (as a cognitive trait) is supported by agency and pathways. Agency is a determination that goals can be achieved, and pathways envision and map a route to goal achievement. Snyder (1991, pg 281) defines hope as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)." Bernardo (2015), further refined Snyder's model to consider the internal or external influences in the locus of hope.

Vision and goals add another compelling force to add impetus to agency and pathways (Snyder, 2000). The power of vision, or envisioning (Cammock, 2003) is broadly acknowledged. "Where there is no vision the people perish" (Proverbs 29:18, King James Bible) is perhaps the earliest recorded observation on vision. Conversely, depression and learned helplessness are associated with a loss of hope (Seligman, 1990) that may be cyclically reinforcing as impacts of the climate crisis intensify (Berry, Bowen, & Kjellstrom, 2010).

Believing that collapse is inevitable is one of the best ways to make it so, while believing in an alternative future is one of the only ways of giving it a chance of actually being realised (Lovins et al., 2018, pg xiii).

Paul Hawken's (2018) Project Drawdown provides an example of pathways to mitigate climate change. It identifies the quantum of CO² equivalents (1,049 gigatons) that need to be removed from the atmosphere by reduced emissions or sequestration by 2050. It then ranks 80 solutions based on the quantum removed. This provides a clear target, pathways and potentially supports a sense of agency and hope. For example, reduced food waste ranks third in Drawdown's solutions, providing pathways of action accessible to most people – while in contrast, not everybody can afford to purchase an electric vehicle (ranked 26th). Paul Hawken (2018) opens pathways further by reconceptualising the climate crisis as not happening *to us*, but "for us – an atmospheric transformation that inspires us to change and reimagine everything we make and do – we begin to live in a different world" (Hawken, 2018 p xi).

A Finer Future also depicts a future where we have successfully met the challenge of climate change and transformed and created the requisite socio-economic systems and communities to prosper (Lovins et al., 2018).

New Zealanders take pride in our achievements as a small nation. In 1893 we were the first country to give women the vote, and have been described as a social laboratory based on innovations in the decades following female emancipation (McClintock, 1998). In addressing the climate crisis, the narrative changed. John Key, the Prime Minister from 2008 to 2016, characterised the nation as "too small to make a difference" thus influencing our individual and collective sense of agency. This narrative obfuscates viable pathways of mitigation options (Watkin, 2014) and diffuses personal accountability.

By contrast, Auckland University's Nikki Harré (2011) outlines three principles for a sustainable future: (1) positioning sustainability as a collective social enterprise; (2) developing positive strategies and; (3) engaging people in inclusive

co-design. She emphasises that positive emotions equip us better to find creative and complex solutions and avoid the paralysis of learned helplessness.

There must be caution around envisioning a utopian post-carbon world where we have reversed global warming and achieved an attendant transformation of society. The prognosis remains dire. Literature on leadership and change supports the need for a sense of urgency. Kotter's (1996) seminal eight step change model positions creating a sense of urgency as the first step.

The sense of powerlessness that our efforts make little or no discernible difference, may mean our fear of the future increases. The role of negative emotions is a political and media strategy Public health agencies use fear appeals, such as images of diseased organs on cigarette packets to motivate behavioural change in smokers. A meta-analysis of fear appeal research concluded that fear appeals can motivate attitude, intention and behaviour changes, but can also backfire if the intended audience do not believe they have agency to change. A high threat fear appeal must be accompanied by high efficacy messages, so the audience believe they can effect desired change (Witte & Allen, 2000). Deficit motivators have a role in effecting change. For example, Nobel Prize winner and founder of the Grameen Bank, Professor Muhammad Yunus's mission was motivated by eliminating poverty (Yunus, 2010).

Aligning agency and urgency

We must be concerned enough to take action on climate change, but not overwhelmed by the enormity of the challenge. Rather than perceiving fear and hopelessness on one pole of a continuum and hope on the other, it is helpful to attempt alignment. Aligning and balancing a sense of urgency with a sense of agency is more likely to precipitate engaged action (Snyder, 2000).

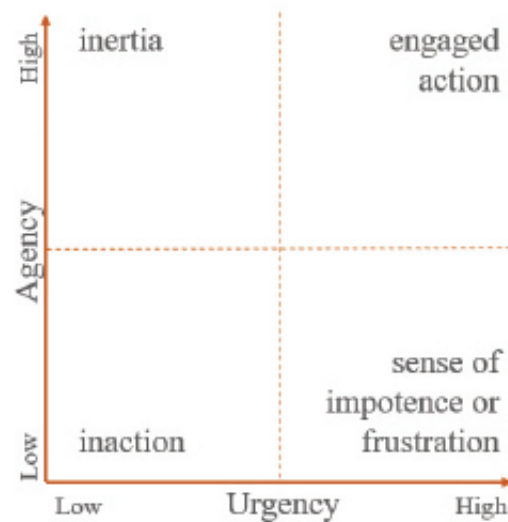


Figure 3. Aligning urgency and agency

As government policy is enacted to effect climate action and the efforts of organisations align, we can anticipate increased momentum for change (Lovins et al., 2018, New Climate Institute, 2016). This momentum can only be accelerated by leveraging all four dimensions of the change model presented above (Green, 2018). Individuals significantly influence what organisations and nations achieve and manifest. Even where many of these individuals

may perceive they have minimal agency, their decisions count as stated by Kanter (1997, p.495).

Every large and complex organisation has many thousands of people who have each day the opportunity, or are literally required, to take action on something. We think of these as "choice points." For an organisation to succeed in any long-run sense, these millions of choices must be more or less appropriate and constructive day in and day out. But this is an immensely difficult problem, because it requires the ultimate in decentralisation – literally to the individual level – along with centralisation in the sense that those individual choices must be coordinated and coherent.

These millions of choice points in a large organisation become billions considering that the climate crisis impacts the futures of all of us. The tools that organisations use to align goal-orientated effort will help to create synergies in creating policy, marshalling resources, and influencing individual choices and social norms. Some of these tools are explored next.

Vision, leadership and engagement

Century long advances in the field of humanities should equip us with the tools to better understand ourselves and how we work together. We are more likely now to accept that everyone, at least potentially, can better understand leadership processes. Peter Cammock's (2003) model highlights the importance of leadership through the dynamic interplay of envisioning, engaging and enacting. Envisioning as an active process is preferable to a vision supplied by others. Fritz (2014) suggests that people own what they create and so it follows that a more potent vision can emerge as more are engaged in its creation.

Leadership is also an interactive dynamic of self-knowledge and concern for others (Cammock, 2003). In the context of the climate crisis, this concern for others aligns with the call to extend empathy to our fellow humans (Rifkin, 2016). Consistent with conceptions of hope, research about engaging people in climate change has found effective messages are novel, capture attention, are personally relevant emotionally and rationally, and provide pathways for action. Meaningful engagement will bring the sustainability issue closer to people in time and space and touch on diverse impacts, such as health, without crushing hope by understanding the reality of the threat (Scannell & Gifford, 2013).

Brulle (2010) asks how might mass media or civic engagement campaigns better engage citizens to act. In New Zealand, we are yet to see Government led mass media campaigns on climate change (see Student March and demonstration for Minerals conference), with priority for government expenditure on campaigns such as smoking cessation and road safety.

SELF-AWARENESS AND INDIVIDUAL AND COLLECTIVE LEARNING

The huge productive capacity of the industrial age has forged consumerism into our identity. People consume in ways consistent with their sense of self (Escalas, 2013). Ingebrigtsen and Jakobsen (2009) add another layer of identity development in the shaping of us as economic actors, evolving from economic man, to social man, to ecological man. Our identity as consumers and economic actors potentially clouds our ability to see ourselves in relation to the climate crisis. Those of us centred in such identities may be locked into self-conceptions that prevent us from taking climate action in a manner similar to how the 'employee' (as a core identity) becomes the agent of his or her own oppression and his or her employee identity colonises home and other social intuitions (Deetz, 1995). It is incumbent on the education system and ultimately ourselves to reflexively explore, to find out who we really are.

Self-awareness is difficult for individuals to unpack, and is more complex when applied to groups of workers in organisations. Organisational learning is an underutilised discipline that clarifies how organisations generate, utilise, store and retrieve knowledge (Garvin, Edmondson, & Gino, 2008). Unfortunately, clustering people together in organisations typically creates learning impairments (Harper & Glew, 2008). The contest of ideas can lead to either creative synergies or defensive routines that inhibit learning (Senge, 2007).

As the climate crisis challenge we face is daunting we must optimise learning individual and collective learning. Rather than rely on culturally fragmented epistemologies, drawing on our global heritage of wisdom is more likely to generate the requisite knowledge for effective action. We can no longer remain anchored in Western reductionist world-views that exclude other perspectives. Indigenous peoples have associations with their landscapes that have reinforced a sense of respect and interdependence, and have typically been in the front line in protesting the advance of extractive industries (Hawken, 2018). In New Zealand, effective learning requires a rapid evolution of the partnership embodied in Te Tiriti o Waitangi.

CONCLUSION

The climate crisis will test our ability to change, perhaps more than any preceding existential threat. To galvanise action around the climate crisis provides a social challenge possibly greater than the material challenges. Hope springs from a sense of agency coupled with choices and pathways to achieve a vision sharpened by a sense of urgency. Solutions such as the Drawdown project offer a range of pathways. Further pathways are created as we seek to understand who we are in relation to the climate crisis thereby increasing our self-awareness, seek to engage with those close to us, and those in wider circles, and to make meaning of it all, individually and collectively through multiple cultural lenses.

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