

## Green shoots:

# Emergent systemic leadership and Critical Systems Practice

Amanda J. Gregory and Jonathan P. Atkins

## Introduction

Climate change is recognised by many to be the defining adaptive challenge of our time. Despite such recognition, the failure of many world leaders to comprehend the scale, scope (bringing a complex mix of environmental, economic and social dimensions) and urgency of this challenge has created a space which has been taken up by a number of young people. As such, these young people are not just protesting about climate change or signalling their potential to lead in the future, they are leading the climate change agenda in the present. Whilst they may be known for seeking to bring about change on a global scale and/or for their activities within their own local communities, the emergence of these young leaders is not easily explained with reference to traditional theories of leadership. In part, this is because traditional theories do not adequately differentiate between leadership and authority and regard the terms as almost, if not fully, synonymous. The creation of definitional distinction between leadership and authority provides the basis for a more systemic understanding of the complementary nature of leadership and authority which is better able to explain the emergence of young leaders focused on the more issue-based agendas associated with the wicked problems or adaptive challenges of complex systems. The proposal of a systems-based understanding of leadership provides the opportunity for the suggestion of how some approaches associated with this discipline can be put in the service of young leaders with the will to make a difference on a global and local scale.

## Climate change, wicked problems and adaptive challenges

Climate change is one of the defining challenges of our time. On the basis of a substantial evidence base, it can be said that anthropogenic activities are changing the Earth's climate, leading to more extreme types of weather and causing events such as heatwaves, hurricanes and storm surges. While the impacts of such extreme events on people and nature are often experienced most profoundly at the local level, affecting the quality of life and of habitats, the cumulative effects are global. No longer can extreme weather be regarded as exceptional and isolated events; indeed, the regularity and speed with which such events occur, often invoking the declaration of a state of emergency, brings a sense of urgency that something needs to be done at the global level. But the complexity of climate change, involving the

engagement of a mix of stakeholders with associated environmental, economic and social concerns, introduces many different perspectives and opposing views to the decision-making process about what needs to be done. Indeed, there is often a lack of clarity to the decision-making process, involving international negotiation, compromise and agreement, which leads some stakeholders to dispute that anything needs to be done at all. Given the competing pulls of environmental, economic and social concerns, it is difficult for established leaders to agree what to prioritise and a reluctance on the part of some to take the type of radical decision, fundamentally affecting peoples' lives and businesses operations, that some declare to be necessary to prevent a deepening of the climate crisis. Indeed, Heifetz, in conversation with Senge and Torbert (Senge et al., 2000), suggests that 'People would prefer to avoid wrestling with ecological values because they involve trade-offs in terms of prosperity and ways of life' (p. 61). Such decisions are also difficult because adaptive change, particularly ecological change, implies that losses and gains may not be equitably distributed, for example, across the globe or between generations. Heifetz (2011, p. 308) outlines three kinds of losses:

- Jobs, money and status;
- Loyalty to families and heritage by changing ways of life to adapt to new realities;
- Competency in how to do things and what to do in an environment characterised by new norms of behaviour and values.

In short, the losses associated with decisions about how to tackle climate change make it a very wicked problem.

The notion of a 'wicked problem' can be traced back to the work of Churchman (1967), who refers to the earlier use of the term by Rittel (later discussed in Rittel and Webber, 1973). Churchman recalls that Rittel used the term 'wicked problem' to refer to that class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing. The adjective 'wicked' is supposed to describe the mischievous and even evil quality of these problems, where proposed 'solutions' often turn out to be worse than the symptoms. (p. B-141)

In contrast, with a tame problem the mission is clear, as is whether or not the problem has been solved (Rittel and Webber, 1973). Churchman (1967) went on to discuss the Operations Research profession's role in tackling such problems and how 'whoever attempts to tame a part of a wicked problem, but not the whole, is morally wrong' (p. B-142). Strong words, indeed, but highly relevant to the wicked problem of climate change and leadership.

Heifetz (1994) makes a similar distinction to the tame and wicked problem, in distinguishing between technical and adaptive challenges. Like tame problems, technical challenges are relatively straightforward problems that we already know how to solve. In contrast, adaptive challenges cannot be resolved through the use of current knowledge and potential options for their resolution may be contentious in bringing about changes in dominant values and established behaviours; hence adaptive challenges are akin to wicked problems.

## The leadership/authority distinction

In contrast to the wicked problem of adaptive challenge is the relatively tame problem of definitional clarity but, according to Senge, 'There are few better examples of the debilitating or dysfunctional consequences of ambiguity than in the

area of leadership.' (Senge et al., 2000, p. 57). On the basis of this insight, Heifetz takes up the challenge of bringing definitional clarity by making the distinction between leadership and the related concept of authority. Leadership is about deciding what changes need to be made in response to a problem or issue in recognition that this will cause wins for some and losses for others (Senge et al., 2000, p. 63). In contrast, authority involves holding a formal position since 'Authority relationships are essentially a contract for services in which somebody entrusts power to somebody else in exchange for service' (Heifetz, 2011, p. 306). Very often that service is focused on change management – the effective and efficient implementation of decisions. Defined in this way, leadership and authority can be regarded as complementary terms and practices but are they both necessary for change? According to Heifetz (2011) it depends:

This system of looking to authority works so long as the ecosystem remains stable or changes very slowly. In a stable ecosystem you don't really need leadership at all. All you need are people in authority providing authoritative expertise to deal with straightforward problems: where's the food; how do we protect ourselves; how do we maintain order? We need leadership when the ecosystem changes. Unless we learn a new strategy quickly enough to thrive in our changed environment, we could be looking at extinction. (Heifetz, 2011, p. 306)

However, depicting change in such a slow-fast way, informed by the organic metaphor, rather underplays consideration of the nature of change in complex systems and important related concepts such as weak signals (advanced signs of future trends often unstructured and fragmented bits of information), inflexion points (when trends shift sharply) and megatrends (large-scale changes that are slow to form but have wide-scale influence over future decades). In order to make explicit what these concepts might imply for leadership and authority, it is perhaps relevant to refer to the work of Baik (2003), who suggests that 'an issue leader is required to exhibit three distinctive behaviors: issue-creating, audience-involving, and issue-implementing.' (p. 37). Taking each of these behaviours in turn:

- Issue-creating may be taken to refer to making sense of weak signals, conceptualising and presenting signals as advanced warnings of emergent issues and future trends, and understanding how power relations may affect whose voice is heard and whose is not;
- Audience-involving implies raising awareness of an emergent issues and to seizing the moment to convince others to protest.

In contrast, issue-implementing perhaps more relates to authority given that it involves mobilizing others, often in the face of opposition, to reconfigure systems and established patterns of organisation. We will return to these behaviours later in this chapter.

## Climate change and young leaders

Greta Thunberg, the Swedish environmental activist, came to prominence in 2018 when, at the age of 15, she began her '*Skolstrejk för klimatet*' (School strike for climate) protest outside the Swedish parliament calling for stronger action on climate change. Other students emulated her actions in their own communities and, together, they organised a school climate strike movement under the name '*Fridays for Future*'. After Thunberg addressed the 2018 United Nations Climate Change Conference, student strikes took place every week somewhere in the world and by 2019 there were multiple

co-ordinated multi-city protests involving millions of students. Thunberg's approach has attracted both ridicule (for example, alleged Twitter bullying by ex US President Donald Trump) and praise. As O'Keeffe (2020) reflects, 'In perhaps her most impressive fearless appearance to date, she confronted world leaders at a UN climate summit in New York September 2019, thundering "How dare you?" in accusation of their failure to take action'. Thunberg's numerous awards are testimony to her influence; for example, being the youngest *Time* 'Person of the Year 2019', inclusion in the *Forbes* list of 'The World's 100 Most Powerful Women (2019)', and two consecutive nominations for the Nobel Peace Prize (2019 and 2020).

Recognition of Thunberg's efforts has not only taken the form of awards, though, as she has inspired other young people to take up a leadership role when it comes to environmental issues. Licypriya Kangujam, born in 2011, has campaigned for years for climate action, urging the Indian government to pass new laws to curb the country's high pollution levels and to make climate change literacy mandatory in schools. Helena Gualinga, born in 2002, has become a spokesperson for Ecuador's indigenous Kichwa Sarayaku community. She exposes how indigenous communities in the Amazon have experienced climate change, promoting an empowering message among the youth in local Ecuadorian schools and reaching out to the international community. To take one further example, in this case from an earlier period, Severn Cullis-Suzuki, born in 1979, founded the Environmental Children's Organization (ECO) at the age of nine, a group of children dedicated to learning and teaching other young people about environmental issues. Cullis-Suzuki raised money with other ECO members to attend the 1992 Earth Summit in Rio de Janeiro, presenting a youth perspective on environmental issues including an address to the Summit. Cullis-Suzuki continues to be a culture and environmental activist and writer, and an Earth Charter International Council Member.

It is not only as individuals that young leaders are tackling climate change issues; they are realising their impact can be far greater when they act together and make use of new technologies and ways of thinking to leverage the resources they have at their disposal to maximum impact. 'We decided we had to do something because we are in a climate emergency ... We are not the leaders of the future. We are the leaders of today'. These are the words of Dom Jaramillo, in an interview with the BBC (2020). Jaramillo was a co-organiser of the youth-led Mock COP, organised when the international climate talks that were due to be held in Glasgow were delayed a year because of the coronavirus pandemic. In organising the event, both leadership and authority were demonstrated providing an illustration of young people doing far more than merely protesting about critical issues. They walked the talk in delivering a Mock COP that:

- Was not based anywhere physical, with workshops and talks hosted virtually across multiple time zones, reducing carbon emissions by 1,500 times that of previous COP events which involved delegates flying in from around the world;
- Addressed complaints about a lack of diversity in the climate movement and fears that countries most affected by climate change were not being heard. They gave countries from the Global South more young delegates and speaking time than given to richer countries.

More than 350 young environmental activists from 150 countries participated in discussions and heard from a range of climate experts. The event culminated in the production of a final statement of demands. Working with environmental law charity ClientEarth, it has been suggested that the final statement of demands could be developed into a legal treaty for countries to consider adopting into law.

Pushing the boundaries of engagement out in the Mock COP in an effort to explicitly address the issue of diversity was an important move to support understanding of how different decisions involve changes that will cause wins for some and losses for others. Such moves are necessary but not sufficient as they need to be supported by research of a critical orientation. As Heifetz (Senge et al., 2000) states, 'we need to do research to find a more sophisticated framework for the normative inquiry that tackles radical questions about whether our diagnosis is capturing reality or is denying critical parts of reality.' (p. 62). He elaborates that this involves inquiry at the level of 'higher abstractions' of assumptions, values and action logic, as well as grappling with the realities of people's everyday lives and the value trade-offs implied by adaptive change. Enter Critical Systems Practice as a framework and theory to support such inquiry.

## Putting Critical Systems Practice in the service of young leaders

A ten-year Carnegie Foundation study examined 120 youth-based organisations located across the United States. The research found a profound disconnect between youth leadership educational provision and the experiences and needs of young leaders (Klau, 2003). In reflecting on these findings, Klau refers to Roach et al.'s (1999) suggestion that many programmes 'often depend, at best, on implicit unexamined ideas about how young people develop leadership traits and what being a leader entails.' (Klau, 2003, p. 60).

The traditional approach often approaches leadership as if it were a property of the individual and this is in stark contrast with what has become known as emergent leadership. The latter type of leadership is informed by systems theory and, whilst some theorists choose to situate it within the organisational context (see, for example, Tate, 2009), we attempt to focus on systemic cross-cutting issues that go beyond organisational boundaries. A systemic perspective of leadership encourages understanding of the contextual relationships that give rise to a leader as an emergent force and catalyst for action. In recent years, there has been a significant rise in the number of prominent young leaders who have not undergone traditional leadership training and yet their words and actions are effectively shaping the response to environmental crisis at international, national and local levels. Being free from years of training in the reductionist method, they appear to intuitively grasp systemic issues. Mindful of Klau's comments on the disconnect between educational provision and the experiences and needs of young leaders, we tentatively suggest that perhaps an understanding of systems methodologies and how they can be used in a flexible way might enhance their practice of leadership behaviours, including 'issue-creating, audience-involving, and issue-implementing.' (Baik, 2003), necessary to address change in complex systems.

Critical Systems Practice (CSP) (Jackson, 2000, 2003, 2019) is a development of Critical Systems Thinking (CST) which serves to bring to light the underlying theoretical assumptions, with associated strengths and weaknesses, of the different systems methodologies. The critical orientation of CST is important in uncovering 'what aspects of complexity they are able to address and which they hide.' (Jackson, 2019, p. 142). This theoretical orientation is complemented with CSP which 'addresses what to do with the outputs of critical systems theory in order to bring about "improvement" broadly defined. It concludes that it is best to use the variety of systems approaches

in combination...' (p. 142). Here, for the purposes of illustrating the relevance of CSP to the theme of our discussion, we will tentatively suggest how and for what purpose young leaders might use different systems approaches (unfortunately, it is beyond the scope of this chapter to go into the detail of the different approaches discussed):

- Issue-creating: making sense of weak signals and power relations

One of Churchman's (1968, 1971) greatest contributions to systems thinking was establishing the idea that the drawing of system boundaries is crucial for determining how improvement is to be defined and what action should be taken. He also saw it as the system designer's responsibility to redraw boundaries to 'sweep in' stakeholder views to ensure that the system comes to serve the interests of more than just the powerful. Midgley (2000) reflects on this in suggesting that you have to deal with power up-front, because if you do not then its use may be hidden by the powerful in manipulating the definition of system boundaries to ensure that their interests are best served. Ulrich (1983), however, did not believe that this important task should just be left to the system designer but rather the question of determining where to draw the system's boundaries should be established through a dialogue between those involved and those affected by a system's design (referred to as the process of boundary critique). Another notion that Ulrich draws from Churchman is the need for systems design to take on the whole system because localised action based on partial understanding can lead to unexpected consequences for the wider system. Of course, to attempt to understand the whole system is an impossible task. What is important, therefore, is to accept an inevitable lack of comprehensiveness in our designs and planning but to make this transparent so that we can reflect critically on their limitations and the likely implications of boundary decisions.

- Audience-involving: awareness raising and seizing the moment

'Soft systems methodology (SSM) is an approach for tackling problematical, messy situations of all kinds.' (Checkland and Poulter, 2010, p. 191). It supports users in learning about a problematic situation in a participatory and creative way and in taking action to improve it (Checkland, 1981). Learning emerges through the exploration of the situation structured around the use of a set of tools to inform and structure discussion about a situation and how it might be improved. The tools, such as rich picturing, are creative, engaging and rigorous and support participants in articulating their views of the situation, sharing their views, debating systemically desirable and culturally feasible changes and, finally, taking action to improve the situation.

According to Eden (1992), who has done groundbreaking work in this field, how views are elicited and shared is significant because:

if we take seriously Karl Weick's aphorism that we do not know what we think until we hear what we say, then the process of articulation is a significant influence on present and future cognition. If articulation and thinking interact, then an elicitation of cognition that depends upon articulation is always out of step with cognition before, during, and after the elicitation process. Indeed it is this process of reflective mapping that often gives mapping its utility (Eden et al., 1979). The elicitation process is designed to be a cathartic experience which provides 'added value' because it changes thinking. (Eden, 1992, p. 261)

- Convincing and engaging others: Facing opposition and planning for action

Heifetz and Linsky (2002) provide a survival guide for leaders in recognition of the inevitable attempts to place hazards in the way of anyone adopting a leadership

role and to thwart their efforts to bring about change. We suggest the bolstering of this survival guide with methodological support in the form of Strategic Assumption Surfacing and Testing (SAST) (Mason and Mitroff, 1981). This methodology serves to systematically reveal the assumptions on which any plans for change are based on and to present them with the opposing argument, the deadliest enemy. SAST is based on four principles:

- Adversarial: the best way to test an assumption is to oppose it;
- Participative: the knowledge and resources necessary to create and implement a solution to a complex problem is distributed among a group of individuals;
- Integrative: emerging out of the adversarial and participative processes is a unified plan at a higher level of understanding;
- Managerial mind supporting: exposure to underlying assumptions deepens the manager's insight into an issue or situation.

Given the focus of this chapter, it is relevant to suggest that SAST has wider applicability than the organisational domain, hence we suggest that it might usefully be considered to be leadership mind supporting.

## Good and bad leaders and the commitments of Critical Systems Practice

Having placed CSP and associated systems methodologies at the service of young leaders, it is worth finally reflecting on the normative aspects of good and bad leadership. In doing so, we highlight the ethical commitments that those who use the power of CSP are expected to adhere to. Whether a leader is regarded as good or bad is essentially a value call.

The potential for leadership to have a 'dark side' was discussed by Bass and Steidlmeier (1999). Four components of leadership can be used to exploit or deceive followers:

- Idealised influence: the leader is egotistical and uses their articulation of a vision to manipulate followers;
- Inspirational motivation: the leader encourages dependence and so fails to support the empowerment of followers;
- Intellectual stimulation: the leader discourages independent thought and creativity;
- Individualised consideration: the leader is not concerned with the well-being of followers, regarding them to be a means to an end.

The need for good leaders to be ethical is recognised by Burns (1978), who defines the process of transformational leadership as raising both leaders and followers to 'higher levels of motivation and morality.' (p. 20). In the previous section, we have seen how CSP can be put in the service of such endeavour but merely having an understanding of the systems methodologies is necessary but not sufficient for good systems practice which depends on a deep appreciation of the underpinning philosophy. Jackson (2000) suggests three important commitments:

- *Critical awareness* relates to the critique of the different systems methodologies and contextual sensitivity;
- *Improvement* refers to the achievement of 'something beneficial' reflecting a circumspect aspiration in the light of the postmodernist challenge to the notion of universal liberation;

- *Pluralism* recognises the requirement to work with multiple paradigms, to use methods disconnected from the paradigm of their origin but with an understanding of the paradigm that they are being put in the service of, and that there are many ways of being pluralistic.

To become systems thinkers requires young leaders to not only understand the above commitments but also to be able to practise them when addressing wicked issues within their own contexts. Good leaders should find these commitments reassuring, bad leaders may walk away as CSP is not for them.

## Concluding reflections

The creation of definitional distinction between leadership and authority provides the basis for a more systemic understanding of the complementary nature of leadership and authority. On the basis of this understanding, we are better able to explain the emergence of young leaders focused on the more issue-based agendas associated with the wicked problems or adaptive challenges, such as climate change, of complex systems. Tentatively, we suggest how CSP might be used in support of young leaders with the will to do good and make a difference on a global and local scale.

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