

Strengthening the climate action movement: strategies from histories

Laurence L Delina, Mark Diesendorf, and John Merson

Institute of Environmental Studies, UNSW Australia, Sydney, NSW 2052, Australia

Corresponding author: Laurence L Delina, Email: laurence.delina@unsw.edu.au;
phone: +61 2 9385 5730

Abstract

Background: Since many governments lack the motivation to lead deep emission reduction initiatives, the climate action movement must strengthen its campaigns.

Method and results: This paper offers strategies for the movement derived from historical analysis of mechanisms that achieved effective social change in the past.

Common elements of climate action with past social change movements, together with

some differences, are identified. **Conclusion:** Although technologies, strategies and tactics vary, climate action groups can agree to support a shared common goal: effective climate mitigation, that can be accomplished not only through outward-oriented tactics, but also by forms of climate activism that are prefigurative, that is, based on action within local communities. Furthermore, the diverse campaigns that take place on a variety of scales and spaces, conducted by heterogeneous groups, should be integrated by establishing national and international hubs to facilitate coordination and communication.

Key terms

Climate action movement: A social change movement comprising heterogeneous actors, groups, and networks, which, although having different strategies and tactics, converge on the broad goal of transitioning society towards a low-carbon future.

Rapid climate mitigation: Addressing the climate change challenge by focusing on transition from greenhouse-intensive industries to ecologically sustainable ones at a rate that is consistent with the science of climate change.

Historical analysis: A method in social science research that assesses reserves of ideas provided by historical episodes to explain and guide current processes.

Public engagement: Active participation of individuals, groups and communities in collective social action that goes well beyond lobbying power-holders and voting in elections, to include mass rallies, teach-ins, media campaigns, strikes and boycotts, divestment, community demonstration of alternatives and refusal to cooperate with governments.

Outward-oriented climate activism: A climate action approach that focuses on large-scale confrontational protests, demonstrations, marches and lobbying to put pressure to governments, vested interests and their supporters.

Prefigurative climate activism: A climate action approach that focuses on the individual and community levels to develop community-based climate solutions.

1 Introduction

With few exceptions, governments at the national level remain myopic and ineffective in responding to the climate challenge (Dunlap and McCright 2011, Washington and Cook 2011). Given how high the stakes are with inaction and slow response of power-holders (Anderson and Bows 2011, New et al. 2011, IPCC Working Group III 2014, World Bank 2012, IPCC 2014), it is now vital to strengthen the grass-roots dimension of climate action. The climate action movement – comprising many individuals, climate action groups, networks, alliances and coalitions (Diesendorf 2009) – seems to be the only hope for exerting sufficient pressure to achieve needed change. Strong support from a wide and diverse membership base is needed to make calls for effective action commensurate with the requirements of climate science. For the existing climate action movement to grow into such a powerful, large-scale movement, there is a need for well thought-out mobilisation and organisation strategies. This paper uses historical analysis, framing it under social movement theory, to identify the strategies the climate action movement can learn from large-scale historical popular social change movements.

For many countries, power structures at the national level are in a state of political gridlock on climate change response, resulting in ineffective policymaking and action (Harrison 2007, Dunlap and McCright 2011, Washington and Cook 2011). In a democracy, people must understand that these power structures are dependent upon their consent and therefore can be revoked at any time. Exerting pressure on power-holders to resolve issues of important public interest has been historically proven to achieve large-scale social changes by toppling some existing power-holders, moving other power-holders into action, and creating new cultural norms. To achieve this, public pressure must be appropriately motivated, mobilised, and organised (Sharp 1973, Ganz 2010, Moyer et al. 2001).

There is reason for optimism about activating people power to the role of climate activism. Despite the issue's low influence in policymaking and media reporting, especially in high carbon states, the majority of people in these countries recognise and support effective climate action, especially in the context of transitioning the sector that is responsible for most emissions, energy. For instance, a longitudinal study from Stanford finds that the majority of Americans support many climate friendly energy

policies, including renewable energy targets, limitations on emissions by utilities, and energy efficiency standards and are even willing to pay some amount to have them enacted (Krosnick and MacInnis 2013). Even in the Republican state of Texas, 79% of survey respondents agree that emissions should be reduced from power plants, while 76% agree that governments should limit emissions from businesses (Krosnick 2013). A similar proportion of the Australian population agrees that climate action is necessary: CSIRO finds that four in five Australians (81%) think climate change is happening and increased investment in renewable energy and public transport should be made (Leviston et al. 2014). These numbers reveal the silent and sympathetic yet dispersed and ‘underutilised’ majority who potentially can be mobilised into the climate action movement.

Using the lenses from social movement theory and historical analysis method (Sections 2.1 and 2.2), this paper distils a number of strategies from four cases of historical large-scale activism (Section 2.3). It examines the points of similarities (Section 3.1) that can be extracted and used for designing strategies for strengthening the climate action movement. It also examines the points of divergence that can be identified (Section 3.2). Comparisons between the climate action movement and past large-scale mobilisations have been a staple in many popular public presentations, articles and blogs, e.g. (Christoff 2013, Mingle 2013). While these discussions are mostly focused on extracting parallel strategies that climate groups can use, there has been no attempt in the academic literature to interrogate this comparison in depth. Based on historical analysis, this paper proposes strategies to strengthen the movement in Section 4, which also acknowledges the limitations of the historical method. Section 5 concludes the paper.

2 Concepts and methods

2.1 The political power of social movements

Recognising the importance of activism in affecting large-scale social changes, the paper uses social movement theory as a framework for investigating the strategies for effective climate action campaigns (Della Porta and Diani 2006, Sharp 1973, Diani 1992, Ganz 2010). Building on insights from this theory, the paper designs strategies

that draw upon the mechanisms that made historical large-scale popular movements effective in their campaigns. These strategies are then applied to social movements of diverse individuals and groups whose perspectives are broadly aligned on the nature of the climate challenge, yet have varying emphases on how to act on it.

Social mobilisation is primarily about organising numbers in order to wield political power. Gene Sharp, who has studied many nonviolent social movements, acknowledges the necessity ‘to wield power in order to control the power of threatening political groups or regimes’ (Sharp 1973) (p.7). Saul Alinsky, considered by some to be the father of modern community organising, writes: ‘Change comes from power, and power comes from organization. In order to act, people must get together’ (Alinsky 1971) (p.113). The history of social movements, indeed, suggests that affecting change is only possible if citizens organise their numbers and become a strong political power (Ganz 2010, Della Porta and Diani 2006, Diani 1992, Sharp 1973).

In engaging with social movement theory, the paper fills a gap in the academic analysis of the varying political activities that the climate action movement adopts. Generally, the movement is focused on toppling a regime that supports industrial emissions to give way to a transition towards more sustainable systems (Diesendorf 2009, 2014). In terms of engagement and focus on communicating climate solutions, however, activists can be described as having two broad approaches (North 2011).

According to North, the first ‘group’ engages in ‘outward-focused activism’ (North 2011) through confrontational protests, demonstrations and lobbying marches to put pressure on political elites to act. Recent examples are the People’s Climate March; the rallies during the Copenhagen COP15; Keystone pipeline protests; calls for divestment in many colleges and universities; direct actions against coal-fired power plants and fossil gas extraction; lobbying for a legislated carbon price, energy efficiency regulations and incentives for renewable energy. By constructing citizen climate action in a similar way to peace, civil rights and other mobilisation types, this group challenges unsustainable practices and pressures governments to support large-scale technology demonstrations. Many of these activists aim to replace fossil fuel-based systems with sustainable energy technologies to mitigate climate change (Brown 2008, Monbiot 2006, New Economics Foundation (NEF) 2008), especially in the electricity sector,

based on the technical plausibility provided by scenario studies and simulation modelling (e.g. Jacobson and Delucchi 2011, Mai et al. 2014, Elliston et al. 2014). Some activists of this form further argue that examples of wartime mobilisation can be used as policy blueprint for such large-scale deployments (e.g. Gilding 2011, Brown 2008), an assumption earlier examined by two of this paper's authors (see Delina and Diesendorf 2013).

The second 'group,' meanwhile, focuses on what North calls 'prefigurative activism' at the individual and community levels to develop community-based climate solutions, opting for smaller scale, grassroots-oriented technologies (North 2011). In this approach, activists direct their policy reform practices towards community-level transitions and practices, e.g. Transition Town initiatives (Hopkins 2008); community energy co-operatives (van der Schoor and Scholtens 2015, Seyfang et al. 2013, Oteman et al. 2014). Their approach resonates with the concept of developing new technologies at niches often found in local communities through the provision of 'spaces for innovation' in developing low carbon lifestyles that might later diffuse to the mainstream (Seyfang et al. 2013, Foxon 2013, Hopkins 2008).

2.2 Past social action mobilisations as reserves of ideas

This paper adopts social science research method called historical analysis where past social action movements are examined and assessed to harvest both convergent and divergent mechanisms that led to their effective campaigns. In this approach, history functions as a reserve of ideas and alternatives and is used as focal resource material. The paper summons historical episodes of widely known events, uses them as case studies, and invokes them as part of narratives to justify and explain policy and strategies for climate action. Scholars have been employing this particular structured approach to knowledge production in a variety of areas, e.g. (Liu and Hilton 2005, Schwartz 1996, Reicher 2001, Olick and Robbins 1998). These methods have been employed in several disciplines, including development economics (e.g. Rostow 1990 [1960], Chang 2002) and history (e.g. Ferguson 2012).

Some readers may be tempted to dismiss the findings of a historical assessment as results of selection effects, arguing that: (1) the selected case studies can be biased

towards successes, since the episodes considered are the most commonly reported and analysed in the literature; and (2) there are other case studies that are also effective yet were not included in the analysis. To reduce potential bias arising from these complications, critical observations were made in this paper across spatial and temporal scales to provide generalizable contrasts between what constitutes effective and ineffective campaigns.

Another criticism of this method may arise pertaining to the impossibility of observing actual fields in action. Although observing historical fields as they occur is impossible for obvious reasons, it is still possible to observe, analyse, compare and infer histories to realise the purposes of this study. In both historical cases and the contemporary climate action movement, our interests similarly lie on how actors were responding to new problems of their respective times, how multiple lines of actions were untangled, how conflicts rose and were addressed, and how the consequences of various decisions were empirically understood. Research from other disciplines suggests that this kind of observation, analysis and comparison can indeed be accomplished and thus produce meaningful results (e.g. Rostow 1990 [1960], Chang 2002, Ferguson 2012).

2.3 The case studies

This paper seeks to identify some dominant dynamics, patterns, elements, important factors and conditions, or key tensions – broadly termed as *mechanisms* – that led to effective large-scale social mobilisations. To determine these mechanisms, historical episodes from four social movements are used in this study: the 1930 events in the Indian Freedom Struggle; the 1955-1956 bus boycott that catalysed the modern African-American Civil Rights Movement; the anti-Marcos movement culminating in the 1986 Philippine People Power Revolution; and the 1988-1990 Burmese Uprising.

1. The Indian Freedom Struggle

The paper examines two episodes in India in 1930 that ignited a massive social shake-up and challenged the dominion of the British Empire in the subcontinent. The year 1930 is considered to be the pivot point of what became the last stages of the successful Indian independence campaign. During this year the movement started to adopt Gandhian nonviolent resistance. The first object of analysis is

the Dandi march (12 March – 5 April 1930) during which Gandhi led a 390 km march for 24 days to defy the British salt tax laws. The second object of analysis is the Dharasana campaign (May 1930), which ended up in violent beatings of peaceful campaigners. These two events eventually attracted international attention, paving the way for the questioning of the British imperial dominance over the region by the international community. Indian independence was finally gained in August 1947.

2. *The Modern African-American Civil Rights Movement*

The paper analyses the birth of the modern civil rights movement in the U.S.A., which can be said to have been catalysed in 1955, one year after the U.S. Supreme Court issued a ruling on *Brown v. Board of Education* that declared the unconstitutionality of state laws establishing separate public schools for white and coloured students. The event analysed is the arrest of Rosa Parks on 1 December 1955 and the following 13-month bus boycott in Montgomery, Alabama. This event catalysed and ignited a national struggle for civil rights of the modern era. The wide range of effective nonviolent activities following Parks's arrest and the bus boycott finally led to the achievement of a number of civil rights legislations that ended racial segregation and enforced equal voting rights in the U.S.A in 1964.

3. *The Philippine People Power Revolution*

The paper examines the mass popular nonviolent uprising to oust the dictator Ferdinand Marcos in 1986, which ended a 23-year corrupt regime and ushered in a smooth democratic transition. The analysis is focused on mobilisations that took off with the assassination of opposition leader Benigno Aquino in 1983, his funeral-turned-protest and succeeding large-scale campaigns that culminated in the post-elections nonviolent People Power revolution in 1986. The analysis also includes mobilisation activities that occurred years before the Aquino assassination during which the Catholic Church and progressive entities initiated grass-roots mobilisation activities.

4. *The Burmese Uprising*

The paper analyses a popular uprising against Burma's military junta that

occurred between 1988 and 1990. After a soldier murdered a university student, student-led protests against police violence spontaneously expanded out of Rangoon into a nationwide anti-junta campaign in 1988. Despite some gains from the campaign, which included the temporary replacement of military with civilian rule in 1988 and the holding of a multiparty elections in 1990, which the opposition party, the National League for Democracy, won, the Burmese Uprising was not able to accomplish its intended goal.

The choice of these four cases is due to three reasons. First, they all contain variations in terms of campaign outcomes: the effectiveness or ineffectiveness of large-scale social action campaigns. In this context, effectiveness is ‘measured’ in terms of (1) an observable effect on the outcome such that the outcome could be plausibly interpreted as a direct result of the movement’s campaigns, and (2) the movement stated goals were fully achieved. Applying these two criteria to the four cases, the cases from India, U.S.A. and the Philippines can be said to be effective. (Note that the measure for effective/ineffective campaigns has to be viewed in the timeframe considered in the case studies.) This variation is important since it allows the comparison of the mechanisms – what caused the outcomes.

Second, the diversity of both causes and effects strengthens the results of the analysis. The diversity allows the formation of some generalisations that are broader than can be derived from a single case, which is an important response to arguments regarding selection bias discussed earlier.

Third, the cases show asymmetrical conflicts between non-state actors against adversaries who are stronger in resources and military capacity. The cases present interesting illustrations of nonviolent campaigns that emerged out of highly repressive environments. These rationales are important for the general objective of this paper where non-state climate action groups are pitted against resource superior opponents in the fossil fuel complex and some very large electricity utilities.

3 Mechanisms for effective campaigns: analogues with the climate action movement

Historical analysis and analogies with the climate action movement reveal that the social movements share both similar and divergent mechanisms that made their campaigns either ineffective or effective. Our analysis in Section 3.1 suggests that convergent mechanisms can be categorised as: (1) building a new collective identity and a unified regime alternative; (2) the moral message and related symbols; and (3) diversity of participants and networking. Section 3.2 shows that divergent mechanisms can be found in terms of: (1) heterogeneity, scale and scope of response; (2) immediate versus future benefits; and (3) public communication channels.

3.1 Convergence

3.1.1. Building a new collective identity and a unified regime alternative

For a social cause to grow beyond local groups and communities, it must be able to propagate itself. The case studies suggest that an effective mechanism to achieve this is to provide people with a new sense of collective identity and ownership by offering a clear and unified regime alternative. In the continuum that describes social movements, the most important phase is when people start to actively and effectively respond to the social issue by not only involving themselves in political actions but also on changing their behaviour and mindset (Lorenzoni et al. 2007, Moser 2009). Yet, it is the most challenging phase, since it entails inculcating new set of identities and values. Once strategies around this mechanism are designed, people appear to become self-directing and the chances of having successful campaigns are increased.

There are of course numerous and complex reasons why the Montgomery bus boycott, the march to Dandi, the Aquino funeral-turned-demonstration, and the protest outside a Rangoon university sparked movements that would eventually expand. But one critical factor, these case studies suggest, is the ‘transformation’ of citizens from being mere individual participants and followers into a collectively organised, self-directing and highly engaged social change groups.

The case studies suggest that greater engagement was secured only after people realised that: (1) the movement offers a clear and unified alternative to the status quo; (2) the movement offers a sense of community for its participants; and (3) the movement exemplifies a set of moral values or virtues that they want to own for themselves. When

protesters were given a new sense of self-identity, campaigns became stronger movements fuelled by people who started acting because they had taken ownership of the larger movement itself. This new identity brings feelings and new experiences of solidarity, harmony and unanimity towards social groups with whom one may not be acquainted, but with whom one nonetheless can share similar aspirations (Della Porta and Diani 2006, Melucci 1996).

The four case studies shared and valued at least one important identity: a high degree of nonviolent discipline. This is an important characteristic of the transformative character of the movements examined. In the case of the Philippines, for example, calls for nonviolent discipline by the Catholic Church during the elections campaign of 1986 were instrumental in bringing in more support for the anti-Marcos movement (Zunes 1999). As a result of the images of nonviolence, some disaffected elites quickly switched sides and many ordinary citizens participated. During the 1986 People Power revolt itself, non-violent discipline became evident as anti-Marcos protesters offered food to the loyalist troops and appealed to their sense of nationalism as encouragement to join the pro-democracy movement (Schock 2005, Boudreau 2004). The phalanx of government armed forces and tanks eventually retreated without bloodshed, and many in the armed forces started to shift their loyalty away from Marcos.

In Montgomery, this ‘transformation’ towards a new sense of collective identity commenced when the commitment towards the bus boycott begun to wane. During this time, bombs were thrown at many black residences and people begun asking whether the boycott was indeed an effective campaign. When a bomb exploded in the yard of Martin Luther King, the pastor immediately delivered a strong message that would define the new identity of the movement from then on. He addressed the crowd:

Now let’s not become panicky. If you have weapons, take them home; if you do not have them, please do not seek to get them. We cannot solve this problem through retaliatory violence. We must meet violence with nonviolence... We must love our white brothers... no matter what they do to us (King 2010 [1958]: 137-138).

King's message gave the black communities a new lens that eventually re-casted and transformed the boycott and the many other campaigns for civil rights into a new and different light.

Aside from valuing nonviolence, highlighting a unified alternative that would usher in a new identity is also evident in the three case studies. The Indian independence movement, the civil rights movement, and the 1986 EDSA People Power revolution had all clearly worked towards achieving unified alternatives to the regimes that they toppled down. By contrast, the Burmese case was considered a failure because, for one reason, it failed to provide a new sense of identity for the Burmese people and a unified alternative to the ruling military junta (Schock 2005).

At present, many climate action campaigns have been planned, centred and accomplished around 'outward-focused activism.' While it is important that the movement strengthens these campaigns and continues to target the worst, obstructionist actors for effective climate action, it is a one-sided response. Equally important is for the movement to highlight 'prefigurative activism' where as many people as possible can be engaged to participate in activities that focus on building regime alternatives, such as the rapid sustainable energy transition, in their own communities.

3.1.2 The moral message and related symbols

The psychology literature points out that people tend to react with passion and determination based on a number of psychological tipping points such as their strong realisation that the values they strongly hold are being violated (Markowitz and Shariff 2012, Swim et al. 2011). These stimuli appeared to have caused large-scale activism to ignite, and were strategically used by social movements as symbols for strengthening their respective struggles, and as mechanisms for mobilising support.

For instance, Rosa Parks' arrest became a visual symbol that effectively represented the racial injustices of her time and momentarily tipped the balance towards the emergence of a national discourse on civil rights. Parks did conform to the type of a black person who was deserving of a right to a bus seat she herself paid for. Her character was pristine; she was humble and gentle; she was honest, she was clean, she had integrity (Harrington 2000, Parks 1992). Her repertoire as a well-mannered

person, her serene demeanour, her proper speech, her humble, saintly way, her ascetic lifestyle carried not only the image but also the reality of an African-American deserving of respect and the right to live peacefully in her community (Harrington 2000). Her arrest was a shock to the community and sent the moral message that propelled the modern movement for civil rights.

In the Philippines, the assassination of Aquino, a prominent political opposition leader, provided the necessary tipping point and moral symbol to spark Filipinos to rise on the occasion and protest Marcos's corrupt regime. In one event, Aquino said: "We cannot fight Marcos with arms, because he has so many. We could not fight him with money, because we do not have any. The only way we can fight him is with morality" (Komisar 1987:78). Since many Filipinos identified Aquino as the moral face of change, his assassination catalysed large-scale activism in that country. His funeral was attended by more than two million people and ignited a series of large-scale protests (Schock 2005). The movement to topple down Marcos culminated in the 1986 peaceful People Power revolution. The symbolism brought about by the personalities and moralities of Parks and Aquino, along with the events that highlighted their moral ascendancies, were both harmoniously connected with the aspirations of black Americans and the general Filipino public of their respective times.

One of the biggest challenges faced by the climate action movement is about making the sense of doing what is right felt rapidly across all sectors of society. This has become more difficult since evidence from behavioural and brain sciences suggests that the human moral judgment system is poorly equipped to identify future, large-scale, long-term hazards such as climate impacts (Swim et al. 2011). The evolutionary history of our species simply impedes our capacity to react today on the future ramifications of our historical and current actions (Gifford 2011). A tipping point, just like the ones provided by Parks's arrest and the Aquino assassination, may be necessary to catapult action, but the movement may not be granted similar pivot events that could highlight the moral basis for effective climate action.

The climate action movement has been employing a number of images to stimulate climate engagement. Some groups are using symbols such as images of a polar bear stranded in a breaking ice, a submerged coastal city and a graph of fast rising emissions

to attract people's attention and appeal to the moral positions of protecting endangered species and future generations of humans. People's perception of these types of climate symbolism, however, varies. While they can grab some people's attention, the focus on technical language and fear appeals that make use of shocking events can disengage other people (Weber 2010, Moser 2007) and could even be perceived as a form of manipulation (Lorenzoni et al. 2007, O'Neill and Nicholson-Cole 2009). In many instances, such symbols rarely push people to action (Lorenzoni et al. 2007, O'Neill and Nicholson-Cole 2009). By contrast, symbols that offer hopes and bear solutions, which are broadly consistent with, yet communicated to, individuals' personal aspirations, desired social identity and cultural biases, appeal to most people and, hence, are the best welcomed (Weber 2010, Segnit and Ereaut 2007). Parks's arrest and the Aquino assassination are good examples of these hope-offering and solution-bearing symbolisms.

3.1.3 Diversity of participants and networking

Individuals and groups may carry out different forms of social movement activity at different times under different organisations, using different tactics focused on different audiences but to the same ultimate end (Schock 2005). The case studies show that the more diverse the participants are – in terms of gender, age, religion, ethnicity, ideology, profession and socio-economic status – the better the chance of success, since it becomes more difficult for adversaries to isolate them.

Diversity of participation also increases the likelihood of tactical diversity, since different groups are familiar with different forms of campaigns and bring their own capacities to their respective movements (Murphy 2005, Chenoweth and Stephan 2011). Diversity among individuals and groups, thus, becomes a mechanism for increasing the number of pressure points.

A social movement, therefore, is best described as a constellation of many heterogeneous actors and groups with differing emphases on the nature of the challenge and unique capacities, but united under one overarching goal. Because of diversity, social movements generally have informal institutional arrangements, an absent hierarchy, and no central authority (Della Porta and Diani 2006, Andrews et al. 2010). Instead, they form networks.

The Philippine case illustrates how a network approach to mobilisation resulted in success. Several progressive and social action groups allied themselves under an umbrella provided by *Bagong Alyansang Makabayan* (New Nationalist Alliance) in 1985. Earlier, the Catholic Church had been organising its networks of grass-roots groups through small, personalised and face-to-face group seminars. As the anti-Marcos protests heightened after Aquino's assassination, these networks were activated to conduct large-scale campaigns around the country (Schock 2005). The intense networked mass mobilisation and nonviolent resistance grew quickly to involve nearly every segment of Philippine society, including moderate reformers, businesspeople, religious leaders, and even former regime supporters. This eventually paved the way for greater engagement that became highly visible during the nonviolent 1986 People Power revolution.

Network-based mobilisations also became the defining strategy in the U.S. civil rights movement, especially during its final phase (Darling 2009). In the course of civil rights activism, both community leaders and residents moved to organise the mobilisation of thousands of their social groups, neighbours, friends, co-workers, and families. As a result, the events that shook the U.S., beginning with Parks's arrest in 1965 and followed by the Montgomery bus boycott and later campaigns such as *Freedom Summer* and the *March on Washington*, 'were engaged in by relatively powerless groups...[who] depended for success ...upon activating other groups...' (Lipsky 1965:1). With a strong, diverse, and large network of groups and supporters, civil rights campaigns became self-propelling. The struggle reached the halls of Congress where equal rights legislation was finally secured in 1964.

In Burma, meanwhile, during the critical month of August 1988 when protests intensified and the junta's legitimacy appeared to be on the verge of collapse, prominent opposition politicians including Aung San Suu Kyi operated mainly on their own (Zin 2010). They were also internally divided whether to call for a regime change or support a negotiated transition (Zin 2010). Moreover, opposition politicians were reluctant to form alliances with students and other grass-roots opposition groups who were the original instigators of the uprising (Schock 2005). Recognising the importance of stronger networks, the students attempted to unite opposition leaders in a single leadership council during the national strike of 26 August 1988, but this failed

(Zin 2010). Ties between the political elites and grass-roots groups, instead of becoming strong and united, were weakened (Schock 2005, Zin 2010), resulting in repercussions in the ranks of grass-roots campaigners, who became confused, frustrated and fatigued (Zin 2010, Boudreau 2004). After two years, the struggle failed and the nation returned to strong military control in 1990.

The variety of participation and the networked approach is also embraced in the climate action movement (McKibben 2013). Diversity occurs across regions, approaches and campaigns. Individual activities may seem tiny, but because of the involvement of many heterogeneous yet similarly oriented groups, they can multiply, achieve economies of scale and thus spread their benefits quickly.

3.2 Divergence

3.2.1 Heterogeneity, scale and scope of response

Each of the four case studies started out as localised campaigns and expanded into movements of national scale. Campaign objectives were realised in terms of either changes in political leadership or an enactment of legislation. Unlike the four case studies, however, the range of spaces and scales at which climate change activists organise is greater. Climate change is not only a local and national issue, but also a global challenge.

Divergence is also evident in terms of the scope of campaigns. The civil rights movement, for instance, worked exclusively for the betterment of coloured people. The Indian struggle was also devoted to attaining nationhood. The Burmese and Philippine cases worked entirely to topple political dictatorships. Climate change, by contrast, involves not a particular race, gender or region but the whole of humanity, including the unborn, and even non-human species. Its intended results extend far beyond changes in political leadership or legislation.

Furthermore, the solutions to anthropogenic climate change can be pursued at different levels, for example within individual industry sectors such as energy, forestry and agriculture, or in a holistic approach to promoting green technologies across the economy, or even going beyond technologies to stop the growth in economic activity

and population which are, at one conceptual level, two of the three drivers of environmental destruction (Daly and Farley 2004, Dietz and O'Neill 2013).

The multiplicity of the challenges and solutions means that the climate action movement has to recognise and include varied values, interests, perspectives, and capabilities in strategising for climate action. Responding to this heterogeneity is important since people may join climate activism for a number of reasons. Some join because they see their friends and families in those groups. Others are motivated to participate by altruism, social solidarity, love of nature, concern for future generations, and community values, etc. (Seyfang et al. 2013, Hall et al. 2010). Others are attracted to the movement because of the economic opportunities and jobs that come along with its campaigns (Seyfang et al. 2013). For these many reasons, the climate action movement cannot rely on one particular rationale to attract participation. Nonetheless, it needs to connect climate change to relevant issues that people care about and to provide wide-ranging opportunities for heterogeneous audiences so that everyone can take action. Campaigns have to be structured so that people can put in as much or as little resource as they are able, while still making a meaningful contribution.

3.2.2 Immediate versus future benefits

Human nature dictates that people mainly respond to immediate and visible burdens and injustices (Gifford 2011) and when their very sense of survival is being threatened (Markowitz and Shariff 2012, Swim et al. 2011). Movements built their campaigns on narratives provided by tipping points and events that highlighted societal burdens and used them to drive people into action (Moyer et al. 2001). However, as earlier stated, the climate action movement may not be granted similar dramatic triggers that it can use to attract numbers. While a warming planet can have undeniable impacts on human lives (World Bank 2012), extreme events could occur too late or develop too gradually to be used as narratives in driving effective climate action. Burden framing is also of limited value due to psychological repercussions such as denial and/or apathy (American Psychological Association (APA) 2009, Center for Research on Environmental Decisions (CRED) 2009), as earlier mentioned in Section 3.1.2.

As human beings, we are also innately impatient, preferring immediate over postponed benefits (Strathman et al. 1994). Effective climate mitigation, through transforming the global energy system from fossil fuels to renewable energy and transforming the agriculture and forestry industries, would take at least several decades. Since climate actions today will largely be for the benefit of future generations, it is imperative for the movement to develop strategies that focus other forms of benefits of mitigation into the present.

3.2.3 Public communication channels

Getting widespread publicity is an important factor for ensuring a successful movement (Moyer et al. 2001) as exemplified by media coverage of Gandhi's campaign (Weber 1997). Media coverage of the civil rights movement at Selma and Birmingham likewise contributed to the build up of supporters, including those from outside the southern states (Bond 2001).

By contrast, the climate action movement has not received similar extensive media coverage and support, especially in Australia and the U.S.A. Often, climate change reporting has been narrowly framed as an impending and emerging environmental problem with serious consequences in the future instead of framing it as an ongoing, present issue. Moreover, positive stories such as those brought about by sustainable energy transitions do not merit as much airtime as stories on violence, wars and political bickering. In cases when climate change is reported, many mainstream media outlets, particularly in the U.S.A. and Australia, have shown bias against climate action (Feldman et al. 2013, Bacon and Nash 2012). Others give equal time to non-scientist deniers of climate science and climate scientists. The fossil fuel regime, which has now extended its reach and influence in mainstream media has, indeed, been impacting the framing of climate science and action as demonstrated by the powerful Australian coal industry, for instance (Bacon and Nash 2012). The absence of media coverage of the climate action movement by mainstream broadcasters is evident during the 2014 People's Climate March where popular U.S. media outlets failed to cover the campaign (Johnson 2014). To some extent, the non-reporting of what was possibly the largest march in history was a reminiscent of media control in Burma in 1988 and at time when Philippines was under martial law. Communicating the climate imperative with the

hope of mobilising a movement via traditional media outlets, therefore, may not be a highly effective option for the movement given this current situation.

In the absence of support from traditional media organisations, the climate action movement may find inspiration from the Philippine case where citizen-initiated radio broadcasts helped to publicise and mobilise the 1986 People Power revolution (Gonzales 1988). Climate action campaigners can use ‘non-traditional’ means, modes and channels of communication provided by online media and social media to boost audience reach. This is relevant since many popular media establishments are already grappling about lost TV viewership, radio listenership, magazine and newspaper readership as internet-based news sources started to chart their own virtual territories and to claim audiences previously held by popular media institutions (Orr 2013, Slaughter 2005).

4 Discussion

The scale and scope of the climate challenge, the heterogeneous character of climate activism, and media attitude to effective climate action entail the design of diverse but integrated strategies for strengthening the movement. Although groups adopt different approaches and pathways to the transition to a low carbon future, guidance provided by lessons of history, as discussed in Section 3.2, generates new ways of thinking about climate action for both outward-oriented and prefigurative types. Using the results of historical analysis and their analogies to contemporary climate action movement, the following strategies are developed.

1. *Focusing the lens of climate activism on a unified alternative*

While the climate action movement appears to be heterogeneous, it does not mean that the approaches, campaigns, technologies, tools and tactics of climate action groups cannot be shared and gathered around one overarching goal or vision. As the case studies show, effectiveness tends to correlate with campaigns that focus on a unified alternative – one that may be broad but many groups can agree with, at least in principle. Moreover, the case studies also show that this overarching goal has to convey positive rather than threatening solutions to increase odds of success. Climate action groups, therefore, have to initiate

campaigns where people can translate their specific concerns into feasible actions that complement and contribute towards an overarching and unified goal.

What is lacking in current climate action campaigns is equal, if not greater, emphasis and effort in highlighting the solutions for deeper emissions reductions. Instead of overreliance on confrontational politics provided by outward oriented activism, the movement can present time-bound and achievable solutions and vision that climate action groups can, at least in principle, support. The overarching goal of effective climate mitigation can be advanced by campaigns and activities that focus on rapid mitigation via changes in technology together with changes in behaviours, and other tactics such as divestment. Some climate action groups are already emphasising their focus on alternative solutions (e.g. see www.renewables100.org). More is needed, however, to broaden these campaigns to highlight positive visions and policies to achieve them, including in sectors other than energy, and preferably at locations where people can directly participate and contribute. Bringing heterogeneous groups to support an overarching goal is essential as highlighted by the case studies.

2. *Facilitating face-to-face meetings*

Because of unfriendly mainstream media, using social media and delivering presentations, seminars and conversations in homes, schools, businesses, community forums and places of worship are paramount in reaching a broad, popular audience. Similar to neighbour-to-neighbour mobilisations for civil rights, and church-based mobilisations in the Philippines, these face-to-face meetings for climate action should stress the importance of a mobilised citizenry as an active political force for socio-technical change.

At the same time, these meetings should focus on educating and training people on climate solutions. These meetings should also empower participants in order to turn talk into action. At the gathering, one or two highly trained volunteer facilitators can guide guests through climate solutions such as sustainable energy and public transport. During the meetings, volunteers could focus their initial talks on climate impacts that are more socially proximate to local communities,

suburbs and cities, instead of visualisations from remote arctic regions, peoples and animals. Focus has to deliberately shift towards locally achievable solutions. At the conclusion of the meeting, guests could be invited to sign up to demand rapid mitigation policies from governments and to host another similar meeting.

3. *Using proximate symbols that convey optimistic messages*

The most engaging images are not those that convey fear but optimistic icons that provide narratives about effective solutions and make people feel they are able to do something about the issue (O'Neill and Nicholson-Cole 2009, Kahan and Braman 2008, CRED 2009, APA 2009). Proximity to these symbols of hope and morality, in terms of closeness to people's own values, daily lives, and local area, is another lesson that the historical cases have illustrated. Indians found it in Gandhi. People in Montgomery found it in Rosa Parks. Filipinos found it in Benigno Aquino. All of them found it in the value of nonviolence and the clear demonstrations of available and doable regime alternatives.

Climate action groups, therefore, should prefer similarly aligned positive representations brought about by local and regional icons that individuals care about and empathise with rather than distant and complex climate icons, imageries and symbols. Energy solutions occurring in communities, towns and cities have already started to provide one kind of such optimistic and proximate symbols for many. The climate action movement should continue using these symbols to highlight and demonstrate the alternatives to the fossil fuel regime. Publicising these kinds of prefigurative activism using alternative forms of communications provided by online media and social media also needs to be expanded and strengthened for greater public visibility.

4. *Demonstrating alternatives to the fossil fuel regime from the ground up*

Since emissions from fossil-based technologies are one of the principal drivers of climate change, the movement has to focus on promoting new possibilities and alternatives to the regime. It can be done by unleashing and celebrating the resources and skills of ordinary citizens in communities where low-carbon economies can be built from the bottom-up through community-owned strategies and approaches (Hopkins 2008). This type of prefigurative activism

can be motivated through localised and tailored strategies that respond to diversity of many groups that comprise the climate action movement.

At the same time, this kind of motivation becomes relevant to many since it responds to what people care about the most. Community energy solutions, for instance, attract local people because they provide immediate benefits such as independence from electricity utilities, protection of local environments, new sources of income, and increasing social cohesion (Seyfang et al. 2013). With community-based actors experimenting with innovations for transition to low-carbon societies at this level through sustainable energy transition, it is then hoped that large-scale transition can be accomplished virally as thousands of other individuals and groups follow suit (Seyfang et al. 2013, Foxon 2013).

This ‘blooming of a thousand flowers’ (Foxon 2013, Seyfang et al. 2013) has already started to permeate climate solutions in many local and city governments where alternative pathways have been occurring through a number of local energy transitions (Bulkeley et al. 2010). For example, many towns and cities have already moved towards 100% renewable energies (see www.go100percent.org), while plans are on the way for others: for example, San Francisco has a 100% renewable energy target by 2020; the City of Sydney by 2030. Climate action groups can focus their campaigns on pushing their local governments and councils to adopt similar transition pathways.

5. *Instituting deliberative democracy exercises*

As the case studies have shown, social movements become more effective when campaigns become self-propelling. This stage can be reached as people feel ownership of the social action campaign itself. Considering the heterogeneous character of climate activism, deliberative democracy processes offer the climate action movement one option to achieve this level of engagement.

Following successes of empirical examples of deliberative democracy exercises in other social change domains (Lang 2007, Girard et al. 2003, Dryzek et al. 2009, Niemeyer et al. 2011), deliberative democracy exercises for climate action would involve a series of professionally facilitated meetings where randomly

selected citizens deliberate the issue to find a variety of possible climate solutions and approaches (Dryzek 2000). Deliberative exercises are processes of iterative knowing, probing, and solving that consider the variety of opinions and suggestions from a heterogeneous mix of participants. Deliberations, not debates, characterise these exercises. The final output is not necessarily a consensus but generally a diversified set of recommendations that show plurality and respect multiple types of knowledge and expertise (Dryzek 2000, Carson 2011). Since this facilitated process encourages sharing, testing and weighing various options, the meetings allow citizens to develop deeper understanding, not only of the issues, but also their solutions (Carson 2011). This leads to greater ownership and establishes trust.

Designing and instituting similar deliberative exercises for climate action where citizens can gather together to provide climate strategies and approaches for achieving the broader goal of effective mitigation should therefore be included in the agendas of the movement.

6. *Expanding networks*

Climate action networks are already far-reaching and many are being forged among climate action groups (e.g. see www.350.org; www.climatenetwork.org). Many coordinated outward-focused activism have already been occurring across locations and scales, e.g. the 2014 People's Climate March, as results of network-based mobilisations. These forms of outward-oriented climate activism have to be sustained and strengthened by encouraging more groups to participate in network-wide activities, and for organisers in the movement to design more large-scale action.

Meanwhile, forging many networks of individuals, groups and communities that focus on prefigurative activism has yet to be accomplished in comparable scale as outward-focused networks; hence, they need to be supported and strengthened. Community energy groups, for example, have already started to work and coordinate their activities collectively (e.g. Bristol Energy Network and the Community Energy Scotland Network in the UK). However, more affiliations such as these and not only within the sustainable energy sector would

be required to achieve economy of scale.

To facilitate an integrated approach to coordination and communication between and among climate action groups and networks, national and international hubs should be set up. Information flow within and between networks can be facilitated through these units. Moreover, diverse actions by heterogeneous groups can be coordinated through these hubs. The hubs can also function as information clearing-houses where relevant research results and examples of effective practice can be compiled so that they can be translated for campaigning.

Demonstrations provided by prefigurative climate activism alone may not hold the key for effective climate action. Since rapid mitigation necessitates deep emissions reductions, the climate action movement has to continue strengthening its outward-focused forms of activism. Mobilising for climate action has always to take note of the global scale of the challenge. This means that the unsustainability of unfettered capitalism and greenhouse-polluting developments have to be confronted. In this case, outward-focused activism remains highly relevant considering that this type has a long political pedigree to change society as have been illustrated by at least the first three case studies. It therefore remains paramount and relevant that climate action groups continue to expose the tactics of vested interests and their supporters, conduct nonviolent resistance to greenhouse pollution, support initiatives that aim to continue disrupting vested interests such as fossil fuel divestments, support alternative forms of public communication approaches to reach more supporters and invite more participants, and build wider and stronger networks and alliances. These campaigns and tactics are already building up. Sustaining, while strengthening them, becomes paramount.

Drawing strategies for the climate action movement from historical analysis, however, raises a number of issues. First, historical and contemporary analogues are never exact. Although similarities can be identified, they are never universal. Just like any other social action movement, the climate action movement has distinct and unique features. The heterogeneity of climate action groups means that strategies and approaches to climate action can neither be exclusive nor universal, yet can be complementary.

Second, all social movements are uncertain, unpredictable, and contentious social processes. Thus, there will never be a predetermined pathway for mobilisation and organisation on climate action. Although the strategies were aligned following the lessons provided by histories, it is always possible for the climate action movement to digress and take extraordinary pathways in prosecuting its activities. The current emphasis on divestment is a possible example of this. Uncertainty is a fact and therefore opportunities for new learning should be embraced within the movement. In acknowledging uncertainties, the paper reflects upon the potential for deliberative democracy processes to provide avenues for accounting and dealing with emerging knowledge and new ways of thinking, while engaging with a larger population.

Regardless of these limitations, the paper shows how the lessons of histories could be used as guides for strategising approaches for the citizen-based, grass-roots mobilised climate action movement. From the analysis, focusing campaign efforts on both outward-oriented and prefigurative types of climate activism beginning on the community and local levels can improve odds at success in tilting the balance of power away from vested interests and their supporters.

5 Conclusions

In the wake of many failures, myopia, and ineffective climate action at national and international spaces, this paper explores the opportunity for strengthening and establishing greater momentum for the grass-roots component of climate action. We recommend strategies for mobilising citizens into climate action groups and bringing them together into a strong socio-political force that is the enhanced climate action movement. The illustrated historical experience of people-driven, grass-roots oriented nonviolent movements, which successfully broke elite regimes and ultimately achieved large-scale changes and transitions, can inform these strategies.

Historical analysis of four past social action movements shows that campaign effectiveness is a function of six broad mechanisms:

- Building a new collective identity and a unified regime alternative;

- Communicating the moral message and choosing appropriate symbols to assist that;
- Encouraging diversity of participants and networking, while introducing national and international hubs to facilitate these actions and sharing of information within and between networks;
- Achieving heterogeneity, scale and scope of tactics;
- Highlighting the benefits of effective climate action to present generation; and
- Using public and social communication channels.

Understanding how these mechanisms work could be useful for the climate action movement especially in designing novel ways to strengthen its campaign strategies. Diverse campaigns should not only be outward-oriented, but should also be prefigurative. These actions that take place across a variety of scales and spaces need to be interconnected and integrated to facilitate coordination of activities and flow of communication among heterogeneous groups.

References

- Alinsky, S. 1971. *Rules for Radicals: A Pragmatic Primer for Realistic Radicals*. New York: Random House.
- American Psychological Association (APA). 2009. *Psychology and Global Climate Change: Addressing a Multi-faceted Phenomenon and Set of Challenges, A Report by the Task Force on the Interface between Psychology and Global Climate Change*. Washington, D.C.: APA.
- Anderson, K, and A Bows. 2011. "Beyond 'dangerous' climate change: emission scenarios for a new world." *Philosophical Transactions of The Royal Society A* 369:20-44.
- Andrews, KT, Marshall Ganz, M Baggetta, H Han, and C Lim. 2010. "Leadership, membership, and voice: civic association that work." *American Journal of Sociology* 115:1191-1242.
- Bacon, W, and C Nash. 2012. "Playing the media game: The relative (in)visibility of coal industry interests in media reporting of coal as a climate change issue in Australia." *Journalism Studies* 13:243-258.
- Bond, J. 2001. "The media and the movement: looking back from the southern front." In *Media, Culture, and the Modern African American Freedom Struggle*, edited by B Ward. Gainesville: University Press of Florida.
- Boudreau, V 2004. *Resisting Dictatorship: Repression and Protest in Southeast Asia*. New York: Cambridge University Press.
- Brown, L. 2008. *Plan B 3.0: Mobilizing to Save Civilization*. New York: W.W. Norton & Co.
- Bulkeley, H, V Castan-Broto, M Hodson, and S Marvin. 2010. *Cities and low carbon transitions, Routledge Studies in Human Geography*. London: Routledge.
- Carson, L. 2011. "Dilemmas, disasters and deliberative democracy: getting the public back into policy." *Griffith Review Edition 32: Wicked Problems, Exquisite Dilemmas* Winter 2011:25-32.
- Center for Research on Environmental Decisions (CRED). 2009. *The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, And the Interested Public*. Columbia University, New York: CRED.
- Chang, H-j. 2002. *Kicking Away the Ladder: Development Strategy in Historical Perspective*. London: Anthem Press.
- Chenoweth, E , and MJ Stephan. 2011. *Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict*. New York: Columbia University Press.
- Christoff, P. 2013. "Presentation at PowerShift 2013." PowerShift 2013: Youth Climate Summit, Melbourne, 13-15 July 2013.
- Daly, H, and J Farley. 2004. *Ecological Economics: Principles and Applications*. Washington, D.C.: Island Press.
- Darling, M. 2009. "Early pioneers." In *Civil Rights Movement: People and Perspectives*, edited by M Ezra and P Mancall. Santa Barbara, California ABC-CLIO Inc.
- Delina, L, and M Diesendorf. 2013. "Is wartime mobilisation a suitable policy model for rapid national climate mitigation? ." *Energy Policy* 58:371-380.

- Della Porta, D, and M Diani. 2006. *Social Movements: An Introduction, 2nd Ed.* . Malden, MA: Blackwell Publishing.
- Diani, M. 1992. "The concept of social movement." *The Sociological Review* 40 (1):1-25.
- Diesendorf, M. 2009. *Climate Action: A Campaign Manual for Greenhouse Solutions.* Sydney: UNSW Press.
- Diesendorf, M. 2014. *Sustainable Energy Solutions for Climate Change.* Sydney: UNSW Press.
- Dietz, R, and D O'Neill. 2013. *Enough is Enough: Building a Sustainable Economy in a World of Finite Resources.* San Francisco: Berrett-Koehler Publishers.
- Dryzek, J , L Belgiorno-Nettis, L Carson, J Hartz-Karp, R Lubensky, I Marsh, and S Niemeyer. 2009. "The Australian Citizens' Parliament: A World First." *Journal of Public Deliberation* 5:1-7.
- Dryzek, J. 2000. *Deliberative Democracy and Beyond: Liberals, Critics, Contestations.* Oxford: Oxford University Press.
- Dunlap, R, and A McCright. 2011. "Organized climate change denial." In *The Oxford Handbook of Climate Change and Society*, edited by J Dryzek and R Schlosberg. Oxford: Oxford University Press.
- Elliston, B, I McGill, and M Diesendorf. 2014. "Comparing least cost scenarios for 100% renewable electricity with low emission fossil fuel scenarios in the Australian National Electricity Market'." *Renewable Energy* 66:196-204.
- Feldman, L, et al. 2013. "Climate on cable: the nature and impact of global warming coverage on Fox news, CNN, and MSNBC." *The International Journal of Press/Politics* 17:3-32.
- Ferguson, N. 2012. *Civilization: The West and the Rest.* New York: Penguin Books.
- Foxon, T. 2-13. "Transition pathways for a UK low carbon electricity future." *Energy Policy* 52:10-24.
- Ganz, M. 2010. *Why David Sometimes Wins: Leadership, Organization, and Strategy in the California Farm Worker Movement.* Oxford: Oxford University Press.
- Gifford, R. 2011. "The dragons of inaction: psychological barriers that limit climate change mitigation and adaptation." *American Psychology* 66:290-302.
- Gilding, P. 2011. *The Great Disruption.* London: Bloomsbury.
- Girard, M, F Poletta, and D Stark. 2003. Policy made public: technologies of deliberation and representation in rebuilding Lower Manhattan. In *Working Paper Series, Center on Organizational Innovation.* Columbia University, New York: Center on Organizational Innovation.
- Gonzales, H. 1988. "Mass media and the spiral of silence: The Philippines from Marcos to Aquino." *Journal of Communication* 38:33-48.
- Hall, N et al. 2010. "Empowerment of individuals and realization of community agency: Applying action research to climate change responses in Australia." *Action Research* 8:71-91.
- Harrington, W. 2000. "Rosa Parks and the Montgomery Bus Boycott." In *The Civil Rights Movement*, edited by P Winters. Cambridge: Cambridge University Press.
- Harrison, K. 2007. "The Road not Taken: Climate Change Policy in Canada and the United States." *Global Environmental Politics* 7:92-117.
- Hopkins, R. 2008. *The Transition Handbook: From Oil Dependency to Local Resilience.* Totnes, Devon: Green Books.
- IPCC. 2014. *Climate Change 2014: IPCC Fifth Assessment Synthesis Report.* IPCC.

- IPCC Working Group III. 2014. "Summary for Policymakers in Climate Change 2014: Impacts, Adaptation, and Vulnerability." In *Fifth Assessment Report of the IPCC*. IPCC.
- Jacobson, M, and M Delucchi. 2011. "Providing all global energy with wind, water, and solar power, Part I: Technologies, energy resources, quantities and areas of infrastructure, and materials." *Energy Policy* 39:1154-1169.
- Johnson, T. 2014. "Sunday news shows ignore historic climate march." *Media Matters for America*. Accessed 22 September 2014. <http://bit.ly/1wWLR27>.
- Kahan, DM, and D Braman. 2008. "The self-defensive cognition of self-defense." *American Criminal Law Review* 45:1-65.
- King, ML Jr. 2010 [1958]. *Stride toward Freedom: The Montgomery Story*. Boston: Beacon Press.
- Komisar, L. 1987. *Corazon Aquino: The Story of a Revolution*. New York: George Braziller.
- Krosnick, J. 2013. *Public Opinion on Global Warming in Texas: 2013*. Stanford University, Stanford, CA: Woods Institute for the Environment.
- Krosnick, J, and B MacInnis. 2013. "Does the American public support legislation to reduce greenhouse gas emissions?" *Daedalus* 142:26-39.
- Lang, A. 2007. "But is it for real? The British Columbia Citizens' Assembly as a model of state-sponsored-citizen empowerment." *Politics & Society* 35:35-69.
- Leviston, Z et al. 2014. *Fourth Annual Survey of Australian Attitudes to Climate Change: Interim Report*. Canberra: CSIRO.
- Lipsky, M. 1965. *Protest and City Politics*. Chicago: Rand McNally & Co.
- Liu, JH, and DJ Hilton. 2005. "How the past weights on the present: Social representations of history and their impact on identity politics." *British Journal of Social Psychology* 44:537-556.
- Lorenzoni, I, S Nicholson-Cole, and L Whitmarsh. 2007. "Barriers perceived to engaging with climate change among the UK public and their policy implications." *Global Environmental Change* 17:445-459.
- Mai, T, et al. 2014. "Envisioning a renewable electricity future for the United States." *Energy* 65:374-386.
- Markowitz, EM, and AF Shariff. 2012. "Climate change and moral judgement." *Nature Climate Change* 2:243-247.
- McKibben, B. 2013. "Beyond baby steps: analysing the cap-and-trade flop." *Grist*. Accessed 20 March 2014. <http://bit.ly/1dGK3sU>.
- Melucci, A. 1996. *Challenging Codes*. Cambridge: Cambridge University Press.
- Mingle, J. 2013. "Fighting for the future." *Environment@Harvard*. Cambridge, MA: Harvard University Center for the Environment.
- Monbiot, G. 2006. *Heat: How to Stop the Planet Burning*. London: Allen Lane.
- Moser, SC. 2009. "Costly knowledge-unaffordable denial: The politics of public understanding and engagement on climate change." In *The Politics of Climate Change*, edited by MT Boykoff. Oxford: Routledge.
- Moser, S. 2007. "More bad news: the risk of neglecting emotional responses to climate change information." In *Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change*, edited by S Moser and L Dilling. Cambridge: Cambridge University Press.
- Moyer, B, et al. 2001. *Doing Democracy: The MAP Model for Organizing Social Movements*. Gabriola Island, British Columbia: New Society Publishers.

- Murphy, G. 2005. "Coalitions and the development of the global environmental movement: a double-edged sword." *Mobilization* 10:235-250.
- New, M, et al. 2011. "Four degrees and beyond: the potential for a global temperature increase of four degrees and its implications." *Philosophical Transactions of The Royal Society A* 369:1934.
- New Economics Foundation (NEF). 2008. *A Green New Deal: Joined-up Policies to Solve the Triple Crunch of the Credit Crisis, Climate Change and High Oil Prices*. London: NEF.
- Niemeyer, S, et al. 2011. Participant Recommendations and Report: Climate Change and the Public Sphere Project. In *Centre for Deliberative Democracy & Global Governance Working Paper 2011/4*. Canberra: Australian National University.
- North, P. 2011. "The politics of climate activism in the UK: a social movement analysis." *Environment and Planning A* 43:1581-1598.
- O'Neill, SJ, and S Nicholson-Cole. 2009. "'Fear won't do it': promoting positive engagement with climate change through visual and iconic representations." *Science Communications* 30:355-379.
- Olick, J, and J Robbins. 1998. "Social memory studies: From "collective memory" to the historical sociology of mnemonic practices." *Annual Review of Sociology* 24:105-140.
- Orr, DW. 2013. "Governance in the long emergency." In *State of the World 2013: Os Sustainability Still Possible?*, edited by E Assadourian and T Prugh. Washington, Covelo & London: Island Press.
- Oteman, M, M Wiering, and J-K Helderma. 2014. "The institutional space of community initiatives for renewable energy: a comparative case study of the Netherlands, Germany and Denmark." *Energy Sustainability and Society* 4:11.
- Parks, R. 1992. *Rosa Parks: My Story*. New York: Dial Books.
- Reicher, S, and Hopkins N. 2001. *Self and Nation*. London: Sage.
- Rostow, WW. 1990 [1960]. *The Stages of Economic Growth: A Non-Communist Manifesto, third edition*. Cambridge: Cambridge University Press.
- Schock, K. 2005. *Unarmed Insurrections: People Power Movement in Nondemocracies*. Minneapolis: University of Minnesota Press.
- Schwartz, B. 1996. "Memory as a cultural system: Abraham Lincoln in World War II." *American Sociological Review* 61:908-927.
- Segnit, N, and G Ereaut. 2007. *Warm Words II: How the Climate Story is Evolving and the Lessons We Can learn for Encouraging Public Action*. London: Institute for Public Policy Research.
- Seyfang, G, et al. 2013. "A thousand flowers blooming? An examination of community energy in the UK." *Energy Policy* 61:977-989.
- Sharp, Gene. 1973. *The Politics of Nonviolent Action*. Boston, MA: Porter Sargent Publisher.
- Slaughter, A-M. 2005. *A New World Order*. Princeton: Princeton University Press.
- Strathman, A, et al. 1994. "The consideration of future consequences: weighing immediate and distant outcomes of behaviour." *Journal of Personality and Social Psychology* 66:742-752.
- Swim, J, et al. 2011. "Psychology's contributions to understanding and addressing global climate change." *American Psychology* 66:241-250.

- Van der Schoor, T, and B Scholtens. 2015. "Power to the people: Local community initiatives and the transition to sustainable energy." *Renewable and Sustainable Energy Reviews* 43:666-675.
- Washington, H, and J Cook. 2011. *Climate Change Denial: Heads in the Sand*. New York: Earthscan.
- Weber, EU. 2010. "What shapes perceptions of climate change?" *WIREs Climate Change* 1:332-342.
- Weber, T. 1997. *On the Salt March*. New Delhi: Harper Collins Publishers India.
- World Bank. 2012. *Turn Down the Heat: Why a 4C Warmer World Must be Avoided*. Washington, D.C.: The World Bank.
- Zin, M. 2010. Opposition movements in Burma: the question of relevancy. In *Finding Dollars, Sense, and Legitimacy in Burma*, edited by SL Levenstein. Washington, D.C.: Woodrow Wilson International Center for Scholars.
- Zunes, S. 1999. "The origins of people power in the Philippines." In *Non-violent Social Movements: A Geographical Perspective*, edited by S Zunes, SB Asher and LL Kurtz. Malden, MA: Blackwell.