



COMMENT



<https://doi.org/10.1057/s41599-023-02507-y>

OPEN

What the climate movement's debate about disruption gets wrong

Kevin A. Young ¹ & Laura Thomas-Walters ² 

The recent debate about whether climate activists should employ disruptive tactics tends to conflate all forms of disruption. The debate typically focuses on the public's reaction to protesters, yet the more important question is whether a given tactic imposes disruption on elite decision makers. Most external analysts, and many activists themselves, fail to specify what approaches are most disruptive of elite interests and which elite institutions the movement should target. They also often misinterpret the lessons of historical social movements. We reconsider one of those movements, the Birmingham civil rights campaign of 1963, in light of the current strategic debate. We argue that disruption is necessary, but that not all "disruptive" strategies are equally effective. In particular, we advocate a strategy that can impose sustained and escalating costs on the elite sectors that can force politicians to confront the climate emergency. Priority targets include financial institutions that fund and underwrite fossil fuels as well as corporations, universities, pension funds, and other institutions that consume and invest in fossil fuels.

¹University of Massachusetts Amherst, Amherst, MA, USA. ²Yale University, New Haven, CT, USA. ✉email: laura.thomas-walters@yale.edu

Introduction

The climate movement includes a wide range of activist organizations, some of which focus on generating disruption as a way of achieving policy change (Garcia-Gibson, 2023). Groups like Just Stop Oil, Fridays for Future, and Extinction Rebellion undertake actions with the aim of pressuring economic and political actors (Fisher and Nasrin, 2020). Their “disruptive” orientation sets these groups apart from climate organizations that prioritize more traditional tactics like electoral campaigning, voter turnout, and lobbying. Groups that employ disruptive tactics seek to exert pressure in various ways. Their actions may be designed to attract media attention, through which they may hope to force the climate crisis onto elites’ agenda or to facilitate the enactment of particular policies. High-profile actions may also aim to jolt the public-at-large into taking collective action. Alternatively, actions may seek to impose direct economic or political costs on influential actors in business and government.

The efficacy of these disruptive approaches is hotly debated in the news and social media, particularly as some UK-based activists known for the use of public disruption have renounced it (Skopeliti, 2022; Shenker, 2023). Debate has focused on the wisdom of disruption in general and on particular actions, such as activists’ efforts to disrupt the UK’s Grand National horse race, their use of slow marches to disrupt “business-as-usual” in urban centers, and the symbolic defacement of classic paintings with food (Buckley, 2022; Salley, 2023; Just Stop Oil, 2023). Discussion of these actions often focuses on the public’s reaction to protesters, with external analysts assessing whether activists’ behavior garners sympathy or hostility. Some climate organizers speak of the need to “legitimise” themselves with the public (e.g., Mance, 2022; Mooney and Bryan, 2023, quoting Beau O’Sullivan of Bank on Our Future). Underlying this debate is an assumption that movements must win over the majority if they are to achieve their goals. Commentators and organizers alike often cite historical cases of movements that they claim succeeded by persuading the public. This assumption is also widespread among scholars of social movements, most of whom say that “making public opinion more supportive” is either “quite” or “extremely important” to social movements’ success (Ozden et al., 2023). This assumption is far from universal within the climate movement, but it is common.

We argue that majority support is the wrong metric. More important than whether or not a tactic wins over the majority of the public is whether it imposes disruption on elite decision-makers. Our argument consists of three theses: (1) disruption must impose direct costs on elite decision makers; (2) disruption must be sustained; and (3) disruption can encompass a range of tactics. In particular, we advocate a strategy that can impose sustained and escalating costs on those elite sectors that can force both polluters and politicians to confront the climate emergency. Priority targets include financial institutions that fund and underwrite fossil fuel operations as well as corporations, universities, pension funds, and other institutions that consume and invest in fossil fuels, as well as state actors such as regulators, judges, and politicians. Some sectors of the climate movement are thinking in these terms (Merleaux et al., 2023; Seidman, 2023; Young, 2024).

To support these points we examine one of the twentieth century’s most famous social movement victories: the 1963 overthrow of legal racial segregation in Birmingham, Alabama, which paved the way for what became the U.S. Civil Rights Act of 1964. We chose this case because it is well documented and because it is regularly cited by climate organizers themselves. The conventional explanation for the victory is that the courage of nonviolent activists, juxtaposed with the vicious violence of

Birmingham police and vigilantes, “mobilized public opinion” in the U.S. North and “forced the Kennedy administration to intervene” and impose integration (Lee, 2002; Williams, 2016, p. 34). Some recent climate organizers have referenced Birmingham to argue that the climate movement will succeed through large nonviolent protests and “moral clarity of message,” which will allow it to have an “impact on the nation’s conscience and politics” (Prakash, 2020, p. 151).

The conventional explanation is mostly wrong. While the movement indeed “mobilized” some Northern liberals, the fundamental source of its success was Southern Black organizers’ ability to impose direct, sustained disruption on key portions of the economic elite. On May 7, five weeks after the campaign’s launch, powerful white capitalists in Birmingham decided to force integration on the city’s political elites, including politicians and police, as a way of ending the economic disruption. Most of that disruption was the result of nonviolent tactics such as boycotts and sit-ins; subsequent rioting by working-class Black residents on the night of May 11–12 played an important role in consolidating economic elites’ support for integration.

The victory at Birmingham thus offers a larger lesson about how political power operates in capitalist societies. Because control over the economy tends to confer control over government, forcing capitalists to change is often a prerequisite for changing government policies. Workers and consumers are uniquely positioned to impose disruption on capital. Black organizers in Birmingham recognized this relationship, as history’s most successful labor organizers (Schwartz, 1976; Womack, 2023; Young, 2024).¹ The climate movement can learn from their example. Though the specific lessons of past struggles are never directly transferable, many of the organizers’ essential insights about power remain relevant to today’s climate organizers.

Thesis 1: Disruption must impose direct costs on elite decision makers

It is an unfortunate reality that despite the institutional trappings of democracy, the general public is usually marginal to the policymaking process. In practice, that process is typically dominated by powerful industries and state institutions that exercise preponderant influence over both government and media. This asymmetry is especially well documented in the case of the United States but is also true, to varying extents, of all capitalist societies (Gilens and Page, 2014; Young et al., 2020). Thus many potential reforms enjoy strong majority support among the public yet never get passed, such as higher taxes on the rich, higher minimum wages, reductions in military spending, and stronger regulations on polluters (Kull et al., 2021; WPO, 2021; Young et al., 2020). Public support is rarely a sufficient condition for the enactment and implementation of progressive reform. Often it is not even a necessary condition. Many of history’s progressive movements have succeeded without the support of the majority, as struggles for slave emancipation, labor rights, racial integration, and many other good things attest (Young, 2024). Instead of chasing public approval, those movements more often sought to disrupt elite decision-makers directly.

Organizers of the 1963 Birmingham campaign targeted elite sectors based on their vulnerability to movement pressure and their ability to give the movement what it demanded. They understood that politicians were not in fact the primary decision makers. A previous campaign for integration in Albany, Georgia, had failed to get the desired results. Usually, that failure is attributed to the lack of high-profile violence employed by city authorities in contrast with Birmingham. But Martin Luther King, Jr., of the Southern Christian Leadership Conference (SCLC) blamed it on the movement’s mistaken approach to disruption:

All our marches in Albany were marches to the city hall trying to make them negotiate, where if we had centered our protests at the stores, the businesses in the city, [we could have] made the merchants negotiate ... If you can pull them around, you pull the political power structure because really the political power structure listens to the economic power structure. (quoted in Garrow, 1986, p. 226).

In Birmingham, then, the SCLC and its local partners “decided we would concentrate on [disrupting] the ebb and flow of the money downtown,” in the hope that merchants and other affected businesses “might pressure the city” to integrate (Wyatt Walker quoted in Morris, 1984, p. 258; Abraham Woods quoted in Raines, 1977, p. 152). *Time* magazine soon reported that the boycott and mass protesters downtown—which deterred white as well as Black customers—were “devastatingly effective.” Downtown businesses lost millions of dollars by early May, with some losing as much as half their sales (Time, 1963; Sitton, 1963, p. 22).

Not surprisingly, the local elites who were most easily “pulled around” were the “merchants, industrialists, corporation and bank presidents, [and] prominent insurance and real-estate men,” as movement negotiator Vincent Harding later recounted (quoted in Morris, 1984, p. 271). Unlike certain other capitalists, such as the rural plantation owners, these groups were highly dependent on a local consumer base and on attracting outside investments, and they were thus particularly vulnerable to any major disruption to Birmingham’s business environment (Luders, 2010).

The most important business leader was Sidney Smyer, head of the Birmingham Chamber of Commerce and owner of a real estate company that “essentially controlled downtown” (McWhorter, 2001, p. 126). Smyer was an avowed white supremacist whose resumé included leadership roles in the White Citizens Councils, the American States Rights Association, Strom Thurmond’s Dixiecrat campaign of 1948, and the business resistance to the New Deal. He quietly funded vigilante forces that terrorized Black people in Alabama. But in the early 1960s, Smyer realized that the growing Black mobilization against segregation (and the white supremacist terrorism that sought to crush it), was “disturbing the peace essential to profits,” as his cousin later wrote. Major investors from outside the South were beginning to steer clear of Birmingham for fear of social disorder and public opprobrium, and Smyer’s own business was suffering (McWhorter, 2001, p. 126, 218, 223). The boycott and other disruptions of April–May 1963 led him to push his fellow elites to back integration as a way of restoring peace and profitability. “I’m still a segregationist,” he said following negotiations with movement leaders in May, but “I’m not a damn fool.” Conceding to his antiracist adversaries had become the lesser-evil option. “It was a dollar-and-cents thing. If we’re going to have a good business in Birmingham, we better change our way of living” (quoted in Raines, 1977, p. 165, and McKee, 1963). Once an integration agreement was finalized with movement negotiators, the Kennedy administration finally intervened to preserve it.

Smyer and company had sidestepped the city government. Now, with the agreement in hand, they forced the city’s politicians, police, school administrators, and the white public to accept their decision. “I would have beaten King,” complained the notorious safety commissioner, Eugene “Bull” Connor, if not for “those damn merchants” (quoted in McWhorter, 2001, p. 424). The integration process was by no means smooth—as the terrorist bombing of the 16th Street Baptist Church in September of that year illustrates—but integration was never reversed and outright terrorism soon declined markedly. The political power structure had listened, however resentfully, to the economic power structure.

The victory reverberated nationally. It soon inspired antiracist protests in other places, which federal officials expected to keep spreading unless they took action. That fear, plus the fact that segregation had now been broken in its most diehard bastion, led John F. Kennedy to introduce his civil rights bill in June. Attorney General Robert F. Kennedy explained that the legislation “is designed to alleviate some of the principal causes of the serious and unsettling racial unrest now prevailing in many of the states” (quoted in Navasky, 1971, p. 205). During and after the long Congressional debate, economic elites remained crucial in forcing the political power structure in the South to acquiesce. As the magazine *Business Week* (1964b) observed the following year, “business and civic groups have provided the leadership needed to win peaceful compliance with the law.”

Public opinion was of little importance throughout this process. Segregation and terror had long been only minor concerns to most whites. Even after Birmingham, most thought that integration should proceed slowly, and they opposed Black protests, including the 1963 March on Washington (Whalen and Whalen, 1985, p. 24). On the eve of the 1964 bill’s passage, 74 percent of the total public thought that “mass demonstrations by Negroes are more likely to hurt the Negro’s cause for racial equality” (quoted in Reinhart, 2019). Nor was the civil rights bill an attempt to appeal to voters. In fact, President Kennedy assumed the legislation would harm Democrats electorally. “The President never had any illusions about the political advantages of equal rights,” wrote Kennedy aide Arthur Schlesinger (1965, p. 968), “but he saw no alternative” given the disruption in Birmingham and elsewhere.

Thus the movement’s power stemmed not from majority support, which it never possessed, but from the ability of a minority to impose direct costs on the elite sectors that had influence over government. Organizers recognized that public opinion was peripheral to government policymaking. Rather than trying to win over the majority, they focused on consolidating support among the Black minority whose withdrawal of patronage “could make the difference between profit and loss for many businesses” (King, 1963, p. 48). The broader white public was not the target. Organizers did not intentionally antagonize whites, but nor did they fret about inconveniencing white consumers in the process of antagonizing downtown businesses.

Sixty years later, this lesson has largely been lost. Much of the debate about climate movement tactics assumes that to be effective the movement must avoid alienating the public (Mance, 2022; Skopeliti, 2022; Mooney and Bryan, 2023; Shenker, 2023). This is especially true of external analysts, yet some climate activists appear to share that view. Major groups have announced strategy changes to “prioritise attendance over arrest and relationships over roadblocks”, and arguments have erupted between groups about the importance of attracting public attention versus approval (Extinction Rebellion, 2022; Gayle, 2023). Unfortunately, these arguments often neglect the more important question of which entities should be targeted with disruption and how best the movement can do so.

To be sure, movements need a sizable minority of the population that is willing to take disruptive action: having a dozen committed radicals on your side isn’t enough. Recent data shows that over 15% of UK adults are willing to take part in environmental campaigns (Parkes et al., 2023), while 14% of US respondents would “personally engage in non-violent civil disobedience (e.g., sit-ins, blockades, or trespassing) against corporate or government activities that make global warming worse” if someone they “like and respect” were to reach out to them (Carman et al., 2021, p. 12). Those percentages represent tens of millions of teens and adults. Messaging and recruitment efforts

aimed at those segments of the population could help the climate movement create a new cadre of organizers and activists.

The strategy of some climate organizations is geared toward that goal. The Ende Gelände anti-coal movement in Germany, Indigenous water protectors in the United States, the Stop the Money Pipeline coalition, and other groups focus primarily on mobilizing members of the public who are already sympathetic. Many of those groups are also thinking creatively about which entities to target and how, seeking to exploit tensions within the ruling class regarding energy policy. By raising the financial and reputational costs to ruling-class segments outside the fossil fuel industry (whose survival does not depend on the continued burning of fossil fuels), they aim to force those segments into confrontation with fossil fuel interests. We return to this point below.

Thesis 2: Disruption must be sustained

If elites believe disruption will dissipate, they are unlikely to advocate concessions to the movement. In general, elites will only favor concessions if they become convinced that recalcitrance and repression will be counterproductive. That realization is more likely to occur if a movement is well organized, committed to continuous recruitment of new members (and to empowering and retaining those members once they're recruited), and prepared for the long haul of struggle and escalation.

The organizers in Birmingham understood the importance of sustaining and escalating the pressure. Sidney Smyer's colleagues did not cave quickly. After a month of boycotting, sit-ins, and mass marches, many business leaders still thought "that the demonstrations would fizzle in time," as one of their advisers wrote (unsigned memo quoted in Thornton, 2002, p. 302; see also Wright, 2013, p. 81). But in the first week of May, they realized that all the mass arrests, dogs, fire hoses, and vigilante violence could not crush the movement and that the repression was only generating more disruption to their business operations. Repression had ceased to be a viable strategy.

The movement could only push things to that point because it was well organized. Its capacity to mobilize people and to withstand repression depended less on public speeches than on the years of community organizing on which the spring 1963 campaign was built (Morris, 1984, 1993). A notable early landmark was the 1956 formation of the Alabama Christian Movement for Human Rights under the leadership of Fred Shuttlesworth, a minister in Birmingham. Shuttlesworth and other local organizers knocked on doors, had 1-on-1 conversations, sang inspiring songs, politicized people through small but courageous public acts of resistance, and forged a culture of community solidarity that would help sustain the 1963 campaign. By early 1963 they had built a genuinely mass movement that included concentric circles of dedicated organizers, activists who participated regularly, and growing numbers of Black residents who were spurred to action when they saw an opportunity to confront the racist power structure. Their numbers and morale enabled them to fill the jail cells to capacity, which in turn led Bull Connor to deploy the dogs and fire hoses since mass arrests were no longer an option.

As we noted above, the Birmingham victory was followed by a rapid escalation of Black protests in other cities. Elites across the country and in Washington began to realize that the movement would not fizzle unless there was substantial reform at the national level. By the end of 1963, there had been "2062 other civil rights demonstrations in 315 cities in 40 states," according to the Department of Justice (quoted in Andrews and Gaby, 2015, p. 524).

The climate movement does have the capacity to organize sustained actions—see Just Stop Oil's slow marches, which

disrupted "business-as-usual" in London for several months in 2023 (Just Stop Oil, 2023).² However, to reiterate Thesis 1, actions need to be targeted at the right people. The general public is being inconvenienced, but it has no direct power to effect change. Meanwhile, there are campaigns such as "Cut the Ties", which target companies with links to the fossil fuel industry, but they need to exert continued pressure on specific targets rather than just conducting one-off actions (XR Southeast, 2023). Outside the UK, several major organizations and coalitions such as Stop the Money Pipeline, Insure Our Future, and Rainforest Action Network have been building sustained pressure campaigns targeting banks, insurers, asset managers, and other financial actors. These groups have the right idea. We need to cause sustained disruption to structures of power to affect the cost-benefit analyses of the executives, investors, regulators, judges, and politicians who can effect change.

Thesis 3: Disruption can encompass a range of tactics

Many different tactics can be disruptive. Climate organizers should select tactics based on careful consideration of both their potential for disruption to elite interests and the possible risks associated with them.

Multiple tactics helped force racial integration in the U.S. South. We have noted the enormous disruption to elite interests achieved by the nonviolent strategy of boycotts, sit-ins, and marches, which derived their disruptiveness from their obstruction of profits. This belies the assumption, often expressed in radical circles, that nonviolent tactics seek to exert influence via "moral suasion" (Malm, 2021, p. 105). The tendency of some analysts to equate disruptiveness with vandalism and/or violence is too simplistic. For instance, it is wrong to assume that the tactics employed by Black militants in the North in the late 1960s and early 1970s were automatically more disruptive than those employed by nonviolent activists in Birmingham or Montgomery.

However, those who characterize the Southern Black movement as strictly nonviolent are also mistaken. The movement survived the terrorist backlash in part because so many Southern Blacks—including even MLK himself—had guns for self-defense (Tyson, 2001; Cobb, 2014). Many working-class Black residents also disobeyed the official leaders' pleas for nonviolent discipline. When Birmingham terrorists carried out bombings the night of May 11–12 in an attempt to murder King and other leaders, many Black people rioted in response. Rather than derailing the negotiated settlement with white business owners, the riots reaffirmed white elites' fears of "impending disaster to life and property" and their desperation for a settlement. The bombings and riots also spurred John F. Kennedy to send in federal troops to protect the settlement (Chamber of Commerce's Senior Citizens Committee quoted in Sitton, 1963, p. 22; see also Morris, 1984, pp. 270–74; Kelley, 1994, pp. 87–90).

Furthermore, the federal government's belated action on civil rights and economic welfare in the mid-to-late 1960s was largely driven by officials' fear that protests might escalate in the direction of greater violence. President Kennedy saw the civil rights bill as necessary "to prevent the final isolation of the [current] Negro leadership and the embitterment of the Negro people," wrote Arthur Schlesinger (1965, p. 968). "Every day that summer new and ominous tendencies seemed to appear in the colored masses," who were growing more receptive to "the mindless radicalism of the Negro militants." Many Congressional politicians predicted the same. The next spring *Business Week* (1964a) noted "fears among many senators that, if there has not been at least a cloture vote by the time schools recess in June, chances of violent civil rights disturbances will increase." The Civil Rights Act was signed by President Lyndon Johnson in July.

This history holds many lessons for climate organizers. Recent tactical debate within the movement has focused largely on whether vandalism or sabotage against fossil fuel companies' property is strategically effective (e.g., Malm, 2021). Such tactics may indeed be useful in some circumstances (and are indisputably justified from a moral standpoint). However, the debate has tended to equate disruptiveness with property destruction. The real measure of a tactic's disruptiveness is its contribution to eroding elite support for the industry or policy that the movement opposes.

By that measure, the level of disruptiveness is not always obvious. For instance, a team of dedicated activists leafleting outside a bank or insurance office every day may ultimately be more disruptive to the company's profits—and indirectly, to the fossil fuel industry's ability to obtain financing and underwriting—than an occasional act of vandalism. Pressure on financial institutions from organizers, shareholders, and clients has begun to have an appreciable impact. Industry analysts lament “that oil companies are struggling to secure financing in the midst of climate change as titans like J.P. Morgan and Goldman Sachs come under increasing pressure” to “prove the sustainability of their investments” (Nemec, 2023).

Activism focused on the demand side, such as protests that push local and state governments, universities, or businesses to phase out the use of fossil fuels, also poses a major threat to the industry's ability to attract investment. Recent U.S. state-level laws to phase out gasoline-powered vehicles and local bans on new gas hookups have elicited outrage from fossil fuel interests (Joselow and Ellerbeck, 2021; Gearino, 2022; Williams, 2023).

Lawsuits can also be enormously disruptive; if they have even a chance of succeeding, they can scare away investors from the target industries (Young, 2024, chapter 2). The fossil fuel press now features regular warnings to that effect. Pipeline industry representatives bemoan the “legal challenges from environmental groups that have slowed and added to the cost of the project[s]” and the fact that “the number of lawsuits being filed to challenge pipeline construction” has added “costs and time to the development of a pipeline, which in some cases has just forced the pipelines [sic] to throw up their hands and walk away from projects” (Gorewitz, 2021, p. 64; Pipeline & Gas Journal, 2021, p. 6; Awalt, 2022, p. 23).

Much of the public assumes that climate activism just means attending protests or marches (Parkes et al., 2023). However, there is a much wider range of actions that can be undertaken, varying in terms of the time, resources, and legal risk involved (e.g., Beautiful Trouble, n.d.). Disruptive tactics that are (currently) legal can be equally effective and have a lower entry point for new recruits. Indeed, steadfast leafleting can sometimes be more disruptive than one-off marches, sit-ins, or acts of vandalism. On the other hand, there is also a potential role for more “radical” tactics, such as calculated vandalism that targets climate-destroying infrastructure (Malm, 2021).

Conclusion

Disruptive activism is essential for achieving the climate movement's goals. In fact, it is even more essential than it was for the Black civil rights movement, given that the climate movement is trying to shut down a whole industry. Yet the debates about whether climate activists should employ disruptive tactics often reflect confusion about definitions, targets, and the mechanisms underlying policy change. The debates often focus on the public's reaction to protesters, but the more important question is whether a given tactic imposes disruption on elite decision-makers. Not all “disruptive” strategies are equally effective.

One recent example illustrates the need for climate organizers to reflect more carefully on this point. In September 2023, four Extinction Rebellion activists momentarily disrupted a semifinal match at the US Open tennis tournament in New York (Friedman, 2023). They successfully garnered the attention of prominent media. However, both the activists and the media coverage ignored the fact that the US Open's corporate sponsors included some of the world's worst financial criminals, including the leading financier of fossil fuels, Chase Bank, and one of the top insurers of oil and gas, Chubb (Hapgood and Bosshard, 2022; Merleaux et al., 2023; US Open, 2023). Given that the names of those companies were plastered all over the courts and in TV commercials, the activists had a golden opportunity to tarnish the companies' reputations before tens of millions of people. In opting instead for an untargeted message of “End Fossil Fuels” on their t-shirts, they limited the disruptive potential of their action.

Climate organizations need a strategy that can impose sustained and escalating costs on the elite sectors that can force government and businesses to confront the climate emergency. Priority targets include the institutional actors that enable fossil fuel production through their investments, loans, underwriting, purchases, and legal and regulatory rulings. That includes entities like banks, insurance companies, asset managers, pension funds, universities, school districts, public transportation boards and housing agencies, environmental regulators, judges, and employers across all industries. The recent growth of campaigns focused on these targets provides promising opportunities for climate organizers everywhere.

As it disrupts elite power sectors, the climate movement must also force those sectors to address the emergency in an equitable way. Polluters will always try to shift the costs of decarbonization onto vulnerable groups. The targeting of these entities must therefore be part of a growing mass movement that educates the public about just policy solutions and threatens disruption in opposition to unjust ways of achieving carbon mitigation. For instance, restricting fossil fuel production—if we are truly effective at doing so—will lead producers to raise prices for fossil fuel products. This points to the need for policies that shield workers and consumers in the form of carbon dividends, aid to displaced workers, and the like (Boyce, 2019). The climate movement will need to mobilize behind equitable reforms and make clear to business and government that it will ferociously resist any reforms that shoulder the vulnerable with the costs.

Data availability

This study did not involve the analysis or generation of any new data.

Received: 11 September 2023; Accepted: 8 December 2023;

Published online: 02 January 2024

Notes

- 1 For a more detailed analysis of Birmingham see Young (2024, chapter 5).
- 2 The fact that climate activism is not usually driven by people's shared experiences of material suffering constitutes a disadvantage vis-à-vis the Black freedom movement. Even so, the climate movement has often shown a capacity for sustained action.

References

- Andrews KT, Gaby S (2015) Local protest and federal policy: the impact of the civil rights movement on the 1964 Civil Rights Act. *Social Forum* 30(S1):509–527. <https://doi.org/10.1111/socf.12175>
- Awalt J (2022) US Northeast faces power reliability crisis without more gas infrastructure. *Pipeline Gas J* 249(10):22–24

- Beautiful Trouble (n.d.) TACTICS: Specific forms of creative action, such as a flash mob or blockade. <https://beautifultrouble.org/toolbox/tactic/>. Accessed 14 July 2023
- Boyce JK (2019) *Economics for people and the planet: Inequality in the era of climate change*. Anthem, London
- Buckley C (2022) Targeting art to help the planet? Activists' tactics fuel a debate. *N Y Times* A12
- Business Week (1964a) Senate buckles down as protests build up. 26
- Business Week (1964b) Why the South took rights law quietly. 28
- Carman J, Lacroix K, Leiserowitz A, Maibach E, Rosenthal S, Kotcher J, Neyens L, Wang X, Marlon J, Goldberg M (2021) Americans' actions to limit and prepare for global warming, March 2021. Yale Project on Climate Change Communication, New Haven. <https://climatecommunication.yale.edu/publications/americans-actions-to-limit-and-prepare-for-global-warming/>. Accessed 14 July 2023
- Cobb Jr CE (2014) This nonviolent stuff'll get you killed: How guns made the civil rights movement possible. Duke University Press, Durham
- Extinction Rebellion (2022) We quit. <https://extinctionrebellion.uk/2022/12/31/we-quit/>. Accessed 14 July 2023
- Fisher DR, Nasrin S (2020) *Climate activism and its effects*. Wiley Interdisciplinary Reviews: Climate Change, 12
- Friedman L (2023) Stopping tennis to call attention to climate change. *New York Times* <https://www.nytimes.com/2023/09/07/climate/climate-protesters-us-open-tennis.html>. Accessed 9 Sept 2023
- Garcia-Gibson F (2023) The ethics of climate activism. *WIREs Clim Change* 14(4):e831. <https://doi.org/10.1002/wcc.831>
- Garrow DJ (1986) *Bearing the cross: Martin Luther King, Jr., and the Southern Christian Leadership Conference*. Vintage, New York
- Gayle D (2023) Insulate Britain and Just Stop Oil vow to continue disruptive action. *The Guardian*. <https://www.theguardian.com/environment/2023/jan/02/insulate-britain-and-just-stop-oil-vow-to-continue-disruptive-action>. Accessed 14 July 2023
- Gearino D (2022) California just banned gas-powered cars. *Inside Clim News* <https://insideclimatenews.org/news/01092022/california-just-banned-gas-powered-cars-heres-everything-you-need-to-know/>. Accessed 14 July 2023
- Gilens M, Page BI (2014) Testing theories of American politics: elites, interest groups, and average citizens. *Perspect Politics* 12(3):564–581. <https://doi.org/10.1017/S1537592714001595>
- Gorewitz M (2021) Court rulings underscore challenges for gas pipeline construction. *Pipeline Gas J* 64
- The Guardian (2023) US Open semi-final interrupted as climate protester glues feet to floor in stands. <https://www.theguardian.com/sport/2023/sep/08/us-open-2023-semi-final-climate-protester-glues-feeet>. Accessed 9 Sept 2023
- Hapgood HR, Bosshard P (2022) 2022 Scorecard on insurance, fossil fuels and the climate emergency. *Insure Our Future*
- Joselow M, Ellerbeck A (2021) America's biggest city is ditching fossil fuels in new buildings. *Washington Post*. <https://www.washingtonpost.com/politics/2021/12/16/america-biggest-city-is-ditching-fossil-fuels-new-buildings/>. Accessed 14 July 2023
- Just Stop Oil (2023) BREAKING: just Stop Oil begins 12th week of disruption. Tweet https://twitter.com/JustStop_Oil/status/1678319038177460227. Accessed 14 July 2023
- Kelley RDG (1994) *Race rebels: culture, politics, and the Black working class*. Free Press, New York
- King Jr ML (1963) *Why we can't wait*. Harper & Row, New York
- Kull S, Fehsenfeld ES, Lewitus EC (2021) Americans on proposals in the 2022 reconciliation budget. Program for Public Consultation, University of Maryland. https://publicconsultation.org/wp-content/uploads/2021/10/Reconciliation_Budget_2022-UPDATED.pdf. Accessed 14 July 2023
- Lee T (2002) *Mobilizing public opinion: black insurgency and racial attitudes in the civil rights era*. University of Chicago Press, Chicago
- Luders JE (2010) *The civil rights movement and the logic of social change*. Cambridge University Press, New York
- Malm A (2021) *How to blow up a pipeline: learning to fight in a world on fire*. Verso, London
- Mance H (2022) When protest provokes. *Financ Times* 17
- Matthews KR (2020) Social movements and the (mis)use of research: extinction rebellion and the 3.5% rule. *Interface* 12(1):591–615. <https://www.interfacejournal.net/wp-content/uploads/2020/07/Interface-12-1-Matthews.pdf>. Accessed 14 July 2023
- Merleaux A et al. (2023) *Banking on climate chaos: fossil fuel finance report 2023*. RAN et al. San Francisco, CA
- McKee D (1963) Peace leader at Birmingham explains. *Wash Post* A4
- McWhorter D (2001) Carry me home: Birmingham, Alabama: the climactic battle of the civil rights revolution. Simon & Schuster, New York
- Mooney A, Bryan K (2023) Will XR's tilt toward the mainstream pay off? *Financ Times* <https://www.ft.com/content/ca066319-746a-4214-983e-03e74931168d>. Accessed 14 July 2023
- Morris A (1984) *The origins of the civil rights movement: Black communities organizing for change*. Free Press, New York
- Morris A (1993) Birmingham confrontation reconsidered: an analysis of the dynamics and tactics of mobilization. *Am Sociol Rev* 58(5):621–636. <https://doi.org/10.2307/2096278>
- Navasky VS (1971) *Kennedy justice*. Atheneum, New York
- Nemec R (2023) Financial community's outlook on oil and natural gas. *Pipeline Gas J* 250(2)
- Ozden J, Rogers C, Wouters R (2023) Social change and protests. *Apollo Academic Surveys* <https://www.apollosurveys.org/social-change-and-protests/>. Accessed 14 July 2023
- Parkes I, Thomas-Walters L, Sabherwal A, O'Dell D, Shreedhar G (2023) Social identification predicts behavioural engagement with environmental activist movements, but does not moderate the collective climate action intention-behaviour gap. *SocArXiv*. <https://osf.io/preprints/socarxiv/4ksgw/>. Accessed 14 July 2023
- Pipeline & Gas Journal (2021) Two arrested in Mountain Valley Pipeline protest. 6
- Prakash V (2020) People power and political power. In: Prakash V, Girgenti G (eds) *Winning the green new deal: why we must, how we can*. Simon & Schuster, New York, pp. 137–163
- Raines H (1977) *My soul is rested: the story of the civil rights movement in the Deep South*. G. P. Putnam's Son, New York
- Reinhart RJ (2021) Protests seen as harming civil rights movement in the '60s. *Gallup.com* <https://news.gallup.com/vault/246167/protests-seen-harming-civil-rights-movement-60s.aspx>. Accessed 14 July 2023
- Salley E (2023) Grand National 2023: What happened at Aintree and the fallout from it. *BBC News* <https://www.bbc.co.uk/sport/horse-racing/65299766>. Accessed 14 July 2023
- Schlesinger Jr AM (1965) *A thousand days: John F. Kennedy in the White House*. Houghton Mifflin, Boston
- Schwartz M (1976) *Radical protest and social structure: the Southern Farmers' Alliance and cotton tenancy, 1880–1890*. Academic Press, New York
- Seidman D (2023) The big bank power structure and how it finances climate destruction. *LittleSis.org* <https://news.littlesis.org/2023/07/13/the-big-bank-power-structure-and-how-it-finances-climate-destruction/>. Accessed 6 Nov 2023
- Shenker J (2023) The existential question for climate activists: have disruption tactics stopped working? *The Guardian* <https://www.theguardian.com/commentisfree/2023/mar/06/british-eco-activists-disruption-extinction-rebellion?>. Accessed 14 July 2023
- Sitton C (1963) Birmingham pact picks up support. *N Y Times* 1:22
- Skopeliti C (2022) "Climate justice is bigger than public opinion": are Just Stop Oil's tactics right? *The Guardian* <https://www.theguardian.com/environment/2022/oct/19/climate-justice-is-bigger-than-public-opinion-are-just-stop-oils-tactics-right>. Accessed 14 July 2023
- Thornton III JM (2002) *Dividing lines: municipal politics and the struggle for civil rights in Montgomery, Birmingham, and Selma*. University of Alabama Press, Tuscaloosa
- Time Magazine (1963) The boycott road to rights. 95
- Tyson TB (2001) *Radio Free Dixie: Robert F. Williams and the roots of Black power*. University of North Carolina Press, Chapel Hill
- US Open (2023) Official partners. https://www.usopen.org/en_US/about/sponsors.html. Accessed 9 Sept 2023
- Whalen C, Whalen B (1985) *The longest debate: a legislative history of the 1964 Civil Rights Act*. Seven Locks Press, Cabin John
- Williams A (2023) US utilities rally to defence of gas stoves as official scrutiny mounts. *Financ Times* 12
- Williams Y (2016) *Rethinking the Black freedom movement*. Routledge, New York
- Womack Jr J (2023) *Labor power and strategy*. PM Press, Oakland
- WPO (WorldPublicOpinion.org) (2021) Bipartisan majority rejects suspending regulations on emissions as part of plan. <https://worldpublicopinion.net/bipartisan-majority-rejects-suspending-regulations-on-emissions-as-part-of-plan/>. Accessed 14 July 2023
- Wright G (2013) *Sharing the prize: the economics of the civil rights revolution in the American South*. Harvard University Press, Cambridge
- XR Southeast (2023) Cut the ties. <https://xr-southeast.uk/cut-the-ties-with-fossil-fuels/>. Accessed 14 July 2023
- Young KA (2024) *Abolishing fossil fuels: lessons from movements that won*. PM Press, Oakland
- Young KA, Banerjee T, Schwartz M (2020) *Levers of power: how the 1% rules and what the 99% can do about it*. Verso, London

Author contributions

Both authors contributed equally to this study.

Competing interests

The authors declare no competing interests.

Ethical approval

No ethical approval was needed for this study as it did not involve human subjects.

Informed consent

No informed consent was needed for this study as it did not involve human subjects.

Additional information

Correspondence and requests for materials should be addressed to Laura Thomas-Walters.

Reprints and permission information is available at <http://www.nature.com/reprints>

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2024