

A case for nonviolent protest

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Disclaimer and epistemic certainty: *This is a somewhat speculative post and I'm not fully confident on some of the numbers used for the cost-effectiveness estimates. I've been working for Extinction Rebellion and Animal Rebellion for the past two years, as well as studying social movement theory, so I will naturally bring in some degree of bias and [motivated reasoning](#). I also think it's important to note that due to concerns around The Sunrise Movement expressed [here](#), I have significantly weakened my belief in the effectiveness of certain social movements.*

What I want this post to achieve: *My main goal with this post is to start a discussion about the effectiveness of different forms of political advocacy. Specifically, whether, and how, social movement concepts such as nonviolent protest should be used for EA causes.*

Reading time: 30-60 minutes

Acknowledgements

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Summary

Social movements are broad alliances of people who are connected through their shared interest in social change. This research focuses on social movements that use civil resistance as a theory of change, as I believe this is under-represented within Effective Altruism (EA). Civil resistance can be defined as political action that relies on the use of nonviolent resistance by civil groups to challenge a particular power, force, policy or regime. In practice, this looks like nonviolent protests and direct action.

[Extinction Rebellion](#) (XR) has highlighted the potential for social movements to create positive societal change. However, there has been little quantitative analysis of the exact impact that XR or other social movements have had on shifting public opinion, creating policy change or, in this case, reducing carbon emissions. In this research project, I attempted to quantify the cost-effectiveness that XR has had on reducing greenhouse gas emissions (GHG) and influencing government spending on climate-related activities. These findings suggest that **XR**

has abated 16 tonnes of GHGs per pound spent on advocacy, using the median estimates for cost-effectiveness. Relative to the top Effective Altruist (EA) recommended climate change charity, [Clean Air Task Force](#) (CATF), **this is more effective by a factor of 12x**. If true, this indicates that nonviolent protests can be highly effective in achieving positive outcomes and social movement objectives. This leads to the conclusion that social movement theory should be a focus area for impact-focused researchers, advocates and philanthropists, to determine when these opportunities might arise and how to best utilise them.

Throughout this research, I argue for the following claims, which I believe to be strong:

1. Nonviolent protest is an effective tool to influence public opinion and policy around a certain issue.
2. Public opinion plays a significant factor in policy change
3. To date, Effective Altruists have devoted too little consideration to social movements and civil resistance.

I'm also arguing for the following claims, but I believe them to be weaker:

1. The most impactful Social Movement Organisations (SMOs) using nonviolent protest can be more cost-effective than existing EA-funded interventions. My cost-effectiveness analysis of Extinction Rebellion indicates that they were more cost-effective, by a factor of 0.4 - 32x, than current EA recommendations for tackling climate change, using a variety of metrics.
2. A two-person year research project studying the use of social movements and civil resistance for certain cause areas could discover more cost-effective interventions than those that already exist. I estimate there's a 30% likelihood of this happening.
3. We should allocate a greater proportion of funds towards early-stage SMOs, for either research or incubation, than what the EA community is currently allocating. I believe this is a good opportunity for [hits-based giving](#), where expected value might be large despite low likelihoods of success, due to significant potential impacts.
4. We need plans to drive social change that are robust to various points of failure - which often manifests in pursuing several theories of change. This is in tension with only funding the single most cost-effective intervention, as some proponents of EA encourage.

I hope to start a conversation within the EA community on the questions above, and potentially to cause a small reorientation of efforts.

What I'm quite unsure about but I believe to be true intuitively:

1. An EA social movement incubator could be a useful intervention to create effective EA-aligned SMOs, in some cases.

1. Introduction

As defined above, social movements are broad alliances of people who are connected through their shared interest in social change. These movements do not have to be formally organized to be considered social movements. A social movement organization (SMO) is a formally organized component of a social movement. Therefore, it may represent only one part of a particular social movement. An example would be Greenpeace which is a single SMO within the broader social movement of environmentalism.

Civil resistance is one of many strategies employed by social movements to achieve their shared goal. Civil resistance is formally [defined](#) as “an extra-institutional conflict-waging strategy in which organized grassroots movements use various nonviolent tactics such as strikes, boycotts, demonstrations, noncooperation, self-organizing, and constructive resistance to fight perceived injustice without the threat or use of violence.” Civil resistance will be the social movement strategy I will be focusing on primarily, as I believe it is not considered as a viable theory of change in many cause areas. When I refer to social movements throughout this piece, I often refer to those using primarily civil resistance.

Common examples of social movements are the Civil Rights Movement, the Movement for Black Lives and Women’s Suffrage. Examples of the corresponding SMOs would be the [Southern Christian Leadership Conference](#), [Black Lives Matter](#), and the [Women’s Social and Political Union](#).

To be clear, I want to clarify what I’m not proposing:

- We fund existing large or established social movements such as Extinction Rebellion, Fridays for Future, Black Lives Matter, etc.
- We should divert a substantial amount (£1 million+) of EA funds towards social movements.
- We fund violent movements, in either material outcome or perceived tone.

What I am proposing is that EAs should consider further researching and/or funding early stage (younger than 1-2 years old) SMOs through their incubation phase. Specifically, SMOs that are incubated with EA values and have a strong commitment to impact, evidence and effectiveness, which may be hard to imagine given the state of social movements currently.

I will outline the following arguments:

1. How SMOs perform on the Importance, Tractability and Neglectedness framework, with some analyses of existing literature on social movements, policy change and protest.
2. A cost-effectiveness estimate of Extinction Rebellion’s impact on climate change
3. How social movements could be applied to cause areas within Effective Altruism
4. Potential arguments against and risks of SMOs
5. Reasons for more research and questions for further exploration
6. Conclusion and what’s next for this research project

2. The case for civil resistance

Key takeaways

- In my cost-effective analysis of Extinction Rebellion, I find that it is [12x more cost-effective](#) at removing carbon from the atmosphere than the Clean Air Task Force, an EA-recommended climate charity. This is a big claim, and I have some reasonably large uncertainties in this value, with 90% confidence intervals of 0.4-32x. I'm currently 60% confident in this value and think more research would improve it. See section 3) for further discussion and analysis.
- One randomised controlled trial, [Budgen \(2020\)](#), suggests that protests can be influential in increasing public support for an issue. See part 2.2) for further analysis of this and the other academic literature below.
- A study of 65% of all elected officials in Belgium, [Wouters and Walgrave \(2017\)](#), shows that protest is a statistically significant factor in the belief formation and voting habits of policymakers.
- [Bergan \(2009\)](#) and [Bergan & Cole \(2015\)](#) show that in the US, email writing and phone-calling from grassroots groups towards legislators had a statistically significant impact on legislator support for certain policies.
- One unanswered question from the research above is how do protests for certain issues in specific countries generalise to protests elsewhere. Another would be how closely does exposure to protests in a controlled study environment match exposure to protests in reality.
- My analysis of XR and other analyses of previous movements indicates that there is a correlational relationship between protest and public support. These relationships have mostly shown to be correlational rather than causal so more research is needed in this area.
- A meta-analysis, [Burstein \(2003\)](#), finds that across 30 studies with 52 separate analyses of public opinion and policy change, public opinion played a statistically significant role in 75% of cases where policy changed.
- [Civil resistance literature](#) shows that nonviolent protest can be successful in achieving social movement objectives, with almost any movement garnering over 3.5% of the population in active participation achieving their aims. There are large limitations of this research, as it has been focused predominantly on political change in the Global South e.g. regime change in authoritarian countries.
- Overall, there is little relevant academic literature on this topic so the above studies should be taken with a pinch of salt, as the evidence base for protest-specific impacts is relatively scarce. In general, the academic literature does support the hypothesis that nonviolent protests are effective in changing public opinion and policy.
- There are other significant reasons supporting nonviolent protests, such as reasonably large tractability, high counterfactual value, low replaceability for EAs, and nonviolent protest being a tool for when other advocacy methods need support. These rely mainly on a priori theoretical arguments with some real-world examples. Further discussion of these points are in 2.3) to 2.10).

2.1) Theory of Change

As there are countless types of interventions for different cause areas, I haven't picked a consistent intervention to compare nonviolent protests to. However, a potential comparison to SMOs could be policy advocacy by think tanks or NGOs. To illustrate, this would be the equivalent of the Clean Air Task Force doing policy advocacy to reduce carbon emissions versus Extinction Rebellion using civil resistance to do the same. However, I think it is essential to note that I don't believe this is an either/or option, rather that a combination of the two is crucial in policy change.

Before attempting to demonstrate the potential impact of effective SMOs, I think it is important to outline the theory of change (ToC) that they generally utilise. Whilst the diagram below is quite simplified, it helps demonstrate the more indirect (but not necessarily more ineffective) route that social movements take compared to direct policy advocacy with decision-makers.

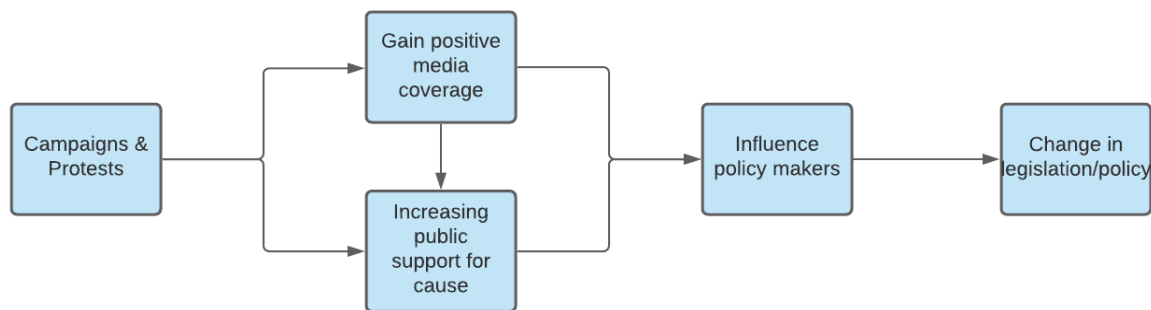


Figure 1: Simplified Theory of Change diagram for grassroots social movements

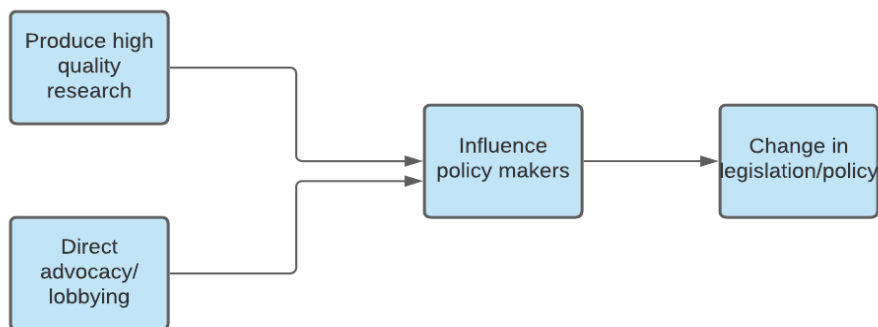


Figure 2: Simplified Theory of Change diagram for direct policy advocacy (think tanks, academia, etc.)

Applying the Importance, Tractability and Neglectedness (ITN) framework

I will use the ITN framework in this section to evaluate using social movements and civil resistance as an intervention. Although the ITN framework isn't the [best tool](#) for intervention

prioritisation, I'm using it as a [helpful heuristic](#) for potential marginal cost-effectiveness, as that is [ultimately what we care about](#). I've also included my analysis of the marginal impact, replaceability and counterfactual value of social movements. I carry out a more detailed cost-effectiveness analysis for Extinction Rebellion below, however, that is only specific to one case. Rather than trying to apply a rigorous cost-effectiveness estimate for a hypothetical general case, I assume the most impactful SMOs will have cost-effectiveness within an order of magnitude of XR.

2.2) Importance: Do social movements have large-scale impacts?

There is a huge asymmetry in the impact of SMOs, meaning that the most effective SMOs are orders of magnitude more impactful than the average SMO. This is similar to what we find for [other charitable opportunities](#), where the best opportunities are orders of magnitude more cost-effective than even the median. Some examples of highly impactful SMOs include the [Southern Christian Leadership Conference](#) (led by Martin Luther King) in the Civil Rights Movement, [Act Up!](#) in the Gay Rights Movement and [Otpor!](#) in the Serbian revolution. In my opinion, these highly effective SMOs are the exception, rather than the norm, and they will be the organisations I will be focusing on.

Whilst there isn't perfect data on the impact of these SMOs, there is some data from the [Ayni Institute report](#) that was funded by Open Philanthropy in 2018. This report focuses precisely on the need to fund social movements and excerpts will be shown below.

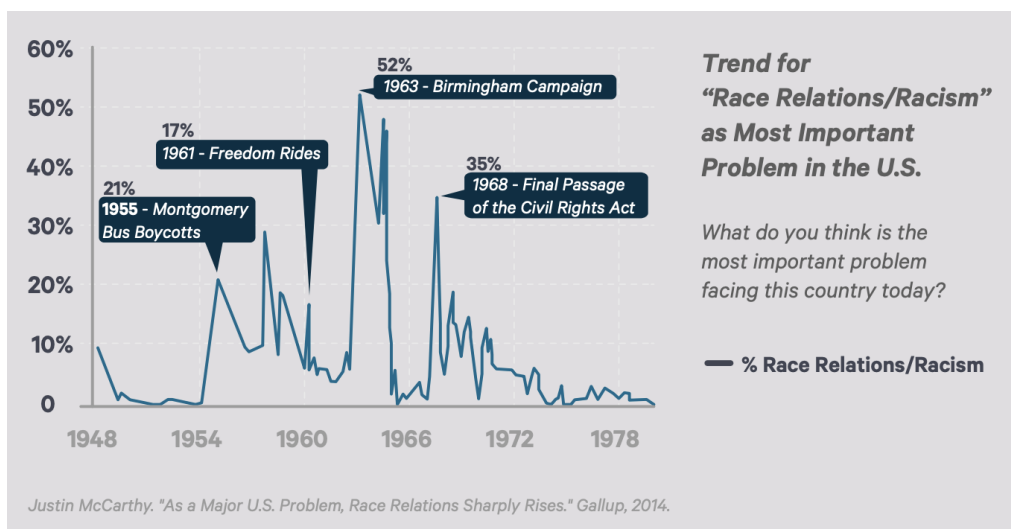


Figure 3: Impact of SLCC and SNCC on the Civil Rights Movement.

Concern about the environment at highest levels on record

Which do you think are the most important issues facing the country at this time?
Please tick up to three. % saying "the environment"

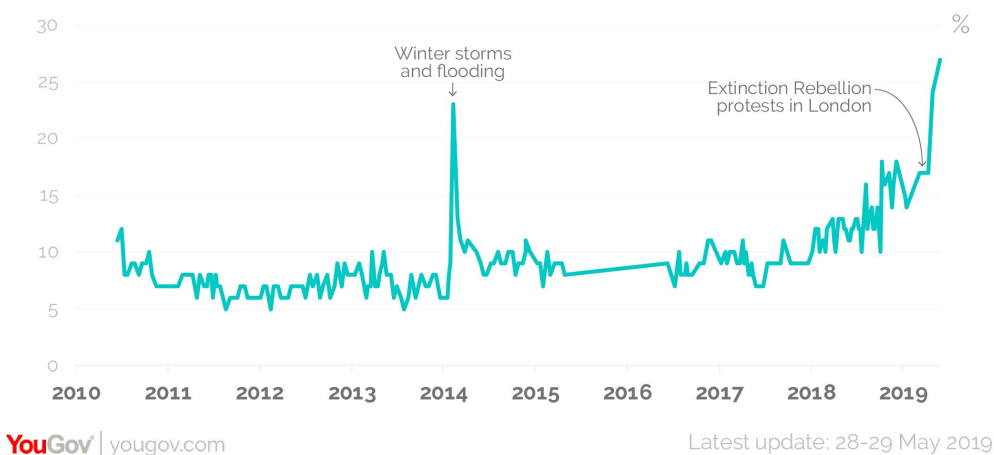


Figure 4: Impact of Extinction Rebellion (XR) on concern for the climate in the UK. Another example can be seen [here](#), with XR named as one of the key factors in growing concern.

Do these groups successfully shift public support on an issue?

As shown by Figures 3 and 4 above, there is a reasonably clear correlation between the activities of social movements and the strength of public sentiment or support for a given topic. The [Ayni Institute report](#) presents more examples, examining BLM, Occupy and the Marriage Equality movement in greater detail. A clear drawback is that these are opinion polls and aren't rigorously exemplified by RCTs, as that quality of data isn't available for SMOs yet (to my knowledge). Due to this, there is no exact causal link we can draw between protests and the impact on public support, as there are many other factors at play that could affect public sentiment. However, there is some academic literature that indicates that protests can be causally influential in affecting public opinion.

Academic literature on impacts of protests on public support

[Budgen \(2020\)](#), in a randomised controlled study with 1,421 participants, finds that protests increase public support for the protestor's cause, relative to a country group.¹ These results are shown in Figure 5 below. Budgen (2020) also shows that both peaceful protests and civil disobedience increase support in the overall population and don't result in a loss of support from Republicans. This leads to what he calls a "no-risk" scenario, where additional protests lead to increased public support with no significant backlash. However, this study also finds while civil disobedience has a statistically significant impact on increasing support from Democrats, this is not the case for independents or Republicans. Although the author notes that the confidence

¹ [Budgen, D \(2020\)](#) - Does Climate Protest Work? Partisanship, Protest, and Sentiment Pools

intervals overlap by only 0.2 points for independents, this indicates that civil disobedience might predominantly increase support in a partisan fashion rather than across the political spectrum. As this study was conducted in the US, it's not clear how public support would change in other countries, given that the US is particularly politically polarised. In addition, there are some potential issues with ecological validity, as the way a member of the public encounters news of a protest in the real world is likely very different to a controlled study environment. In reality, there is probably some influence from the bias of the news source where they obtain the information, as well as effects of repeated exposure from other sources.

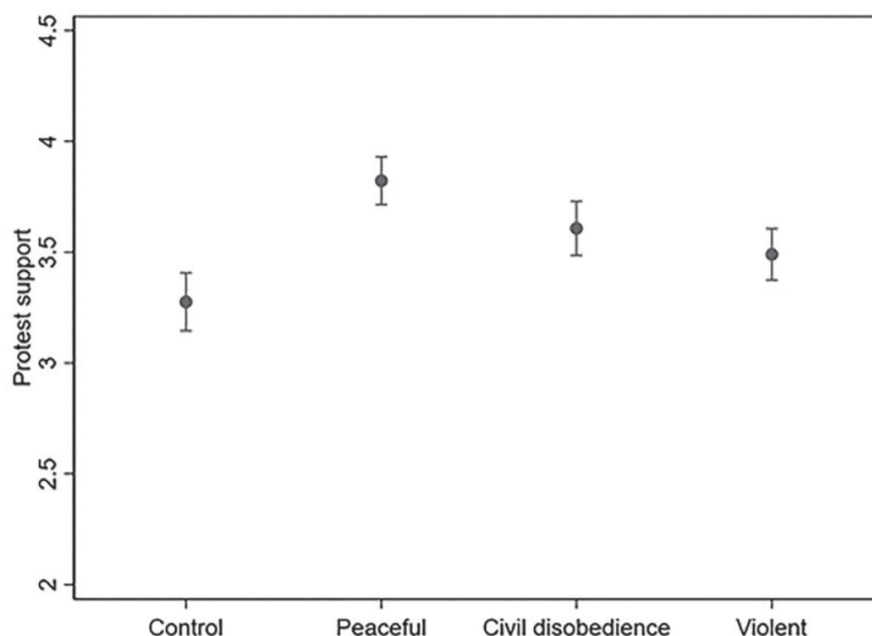


Figure 5: The effect of various forms of protest on public support for the protestor's cause.

Source: [Budgen, D \(2020\)](#) - Does Climate Protest Work? Partisanship, Protest, and Sentiment Pools

[Wouters and Walgrave \(2017\)](#), in a study of 65% of all elected politicians in Belgium, show that protests have a significant effect on the beliefs of political representatives.² They report that protests affect the salience of the protest's issue amongst politicians, the position they take and their intended actions (e.g. voting on a particular policy). Wouters and Walgrave (2017) also find that the size of the protest, and unity in protestor's message, are the most significant factors in influencing political representatives. Some limitations of both Wouters and Walgrave (2017) and Budgen (2020) is that participants know they are being tested, which could lead to a bias in responses. Improved research could be observational studies that track public opinion over time in relation to news coverage of a social movement, to better understand how this interplay works in a real-life context compared to a study environment. This work could look similar to

² [Wouters, R and Walgrave, S. \(2017\)](#) - Demonstrating Power: How Protest Persuades Political Representatives

Figures 3 and 4, but might include questions asking participants to specifically attribute the main three reasons for their concern on a certain issue.

In a literature review of the cultural impact of social movements, [Amenta and Polletta \(2017\)](#) finds that social movements can have a positive influence on public opinion across a variety of issues, such as civil rights, immigration and lesbian and gay rights.³ Conversely, they also find that in some cases, such as the anti-Vietnam war protests, they find that protests do not affect public opinion. In addition, they find that whilst social movements can lead to increased salience of an issue, it can also lead to the presence of a counter-movement, as seen by the environmentalist movement. Amenta and Polletta (2017) highlight there are several cultural influences that social movements can have on society, from reframing debates, inspiring lifestyle movements, introducing new linguistic concepts, and more. However, they find that whilst protests can positively influence public opinion and other cultural factors in some cases, this is not universally true.

Finally, Jamie Harris from the [Sentience Institute](#) finds that “Protests and social movement events can influence public opinion as well as the public’s perceptions of the importance of certain issues.” in his [literature review](#) of effective strategies for shifting public opinion.

Other social impacts of nonviolent protests

In addition to raising awareness and building public support for an issue, social movements generally seek to shift the [Overton window](#). The Overton window is the range of policies that is deemed acceptable in public discourse. Social movements and civil resistance can shift the Overton window to make more progressive policies, whether it’s about animal welfare, racial justice or climate action, seem more reasonable and therefore have a higher chance of being passed. One clear example explored further below is how Extinction Rebellion had extremely [ambitious demands](#) of declaring a climate emergency and achieving net-zero emissions by 2025. The high levels of ambition in these demands meant that previous policies now seemed less progressive, encouraging political parties to adapt their own policies to maintain the support of their constituencies. The work of XR notably [influenced](#) the [Labour Party](#) in the UK in [declaring a climate emergency](#) and shifting their net-zero target from 2050 to 2030. Furthermore, Jeremy Corbyn, then leader of the Labour Party, [came out directly](#) to say that MPs should endorse XR’s demand of declaring a climate emergency, which [they later did](#).

Another way groups can shift public support or draw attention towards an issue is by making use of [“trigger events”](#). Trigger events are moments in society when due to some internal or external trigger, there is heightened awareness of a particular issue. An internal trigger event is one which is fabricated by the movement itself, whereas an external trigger is an unexpected and unplanned event. An example of an internal trigger event is when XR planned its first round of protests and an external trigger would be footage from George Floyd being killed by police released online, catalysing the Black Lives Matter movement. SMOs can lay down foundations and organisational infrastructure that allows movements to better utilise these trigger events to

³ Amenta, E., Polletta, F., (2019), [The Cultural Impacts of Social Movements](#)

further the discourse around issues in society. A strong example would be BLM, which was originally founded in 2013, which has had several waves of heightened protest activity, predominantly [due to external triggers](#) such as the murders of George Floyd, Breonna Taylor and Eric Garner, amongst others. It's plausible that without these SMOs laying down the groundwork before trigger events, there would be much less protest and therefore public attention on certain issues, and trigger events would be "wasted". Therefore, in the case of existing SMOs, they might counterfactually contribute to higher salience of an issue compared to a scenario where the movement did not utilise these trigger events, at a specific point in time. Other examples of trigger events for other cause areas could be extreme weather events for climate change, COVID-19 for biosecurity and graphic animal footage investigations for animal advocacy. Trigger events have not been studied in great detail, so there is some room for research in this area to understand to what degree SMOs successfully use them to increase salience and support for an issue.

Based on the academic literature and history of social change to date, I believe there is reasonably good evidence that *some* SMOs can be highly impactful at building public support and salience for *some* issues. Examples such as the [Suffragettes](#), [Black Lives Matter](#) and [Fridays for Future](#) also point towards this being true, due to their widely acknowledged success. What is much less obvious, however, is understanding what percentage of all SMOs achieve their aims, as well as which factors determine the success of an SMO. These would be key questions to explore to better understand the feasibility of using social movement principles to do good. Another open question would be to what degree widespread public support leads to a successful social movement versus a successful social movement is the driver in increased public support, and how this potentially cyclical relationship works.

How does public support translate to policy change?

Academic Literature

There have been several studies examining the effect of grassroots advocacy towards legislators and the impact on subsequent legislation. [Bergan \(2009\)](#) and [Bergan & Cole \(2015\)](#) show that in the US, email writing and phone-calling from grassroots groups towards legislators had a statistically significant impact on legislator support for certain policies.^{4,5} In the case of phone-calls, this led to an increase in support for relevant legislation by 12 percentage points. However, this method of advocacy is not limited to SMOs carrying out nonviolent protests, as grassroots advocacy groups can exist that contact legislators without carrying out disruptive protests. In addition, the authors note that grass advocacy works for the particular issue they chose, anti-bullying legislation, but it's unclear how well this will generalise to other issues in other states or countries. Therefore this does not conclusively determine that public support is causally related with policy change, but it is a small positive update in that direction and that it works in *some* contexts.

⁴ Bergan, D & Cole, R. (2015), [Call Your Legislator: A Field Experimental Study of the Impact of a Constituency Mobilization Campaign on Legislative Voting](#)

⁵ Bergan, D. (2009), [Does Grassroots Lobbying Work?: A Field Experiment Measuring the Effects of an e-Mail Lobbying Campaign on Legislative Behavior](#)

Furthermore, there is evidence that public opinion does indeed play a role in shaping policy. A widely cited literature review by [Burstein \(2003\)](#) claims that the impact of public opinion is substantial and that salience enhances the effect of public opinion.⁶ Burstein finds that across 30 studies with 52 separate analyses of public opinion and policy change, in 35% of all cases, public opinion played a significant role in the policy outcome, and that it was statistically significant in 75% of cases. As successful SMOs generally build strong public support and salience for a particular issue, generally through widespread coverage of disruptive protests, this indicates potential effectiveness. Some limitations of this review include the mixed findings on whether the responsiveness of policy has decreased over time, as well as the focus on data in the US that was mostly pre-1990, again highlighting some concerns for how this maps to other countries and a more recent political context.

In another well-cited literature review, [Shapiro \(2011\)](#) offers this summary “Overall the finding that opinion influences policy is amazingly robust—most studies show opinion affecting policy regardless of how opinion, policy, and the relationship between them is measured. It's not possible to say how strong the relationship is, or how the strength depends on circumstances.”⁷ Shapiro also notes that difficulty in measuring policy change and public opinion leads to a likely *underestimation* of this relationship, although there isn't much evidence given for this claim. He also points to the ongoing debate of whether this relationship is causal, due to the difficulty in statistically controlling other factors that might play a role.

Historical evidence

From a historical perspective, there's some evidence in [various timelines](#) and [research](#) of the significance of social movements and protest on the passage of the Civil Rights Act in 1964. Specifically, prior to the passage of the Civil Rights Act in 1964, there were several periods of heightened protests, shown in Figure 4, which led to state-wide victories. These include things such as desegregation of [lunch counters](#), [buses](#) and [businesses](#) in certain states. The [reasonably large contribution](#) of protest towards public support and policy change in this example further strengthens the case for nonviolent protest. However, my belief here is a general impression based on a [wide range](#) of [historical accounts](#), rather than an empirical analysis of the impact of nonviolent protest on the Civil Rights Movement. Furthermore, this evidence again only shows that it has worked in some contexts in the past, without much indication for future generalisability.

In the spirit of quantifying things so people can see the strength of my claims and challenge them (a la Toby Ord in *The Precipice*), I'll estimate some numbers of the exact contribution these SMOs made. I would attribute 50-70% of the passage of the Civil Rights Act in 1964 to the work of Martin Luther King, the Student Nonviolent Coordinating Committee and the Southern Christian Leadership Conference. I could also frame it by saying they brought forward this legislation by 10-20 years through their campaigning work. Although this is only one example of protest groups driving policy change, there are numerous similar examples that

⁶ Burstein, P., (2003), [The Impact of Public Opinion on Public Policy: A Review and an Agenda](#)

⁷ Shapiro. R., (2011), [Public Opinion and American Democracy](#)

highlight this, with my analysis of XR below being another. Crucially, I believe that even if these movements are highly successful in just a very small number of cases, the overall impact of doing good is large enough that it's worth further study.

In summary, the question of how increased public support maps to policy change is not exactly settled. More research could be done here to better understand this relationship, and how advocates might use these findings going forward. There is widespread scientific consensus that public opinion does affect policy change, but there are also some outstanding questions such as the degree to which public opinion affects policy, generalising to other issues and countries or whether public support in certain constituency groups is more important than others.

What does civil resistance research say?

From a civil resistance perspective, [research by political scientist](#) at Harvard, Erica Chenoweth, shows that any nonviolent social movement that garnered over 3.5% of the population in active support for their aims never failed to achieve their stated goal. Whilst this 3.5% was a value above which no movement failed to succeed, many succeeded with active participation rates much lower than this (although some potential recent [exception to the rule](#) in Bahrain in 2014 and [Belarus in 2020](#)). This study of 300+ movements over the past 100 years highlights that nonviolent civil disobedience is a historically proven tool for social change, in some cases. Various other results from this research show that nonviolent movements are twice as likely to succeed in their aims relative to their violent counterparts, with the difference in success rates increasing towards the present day. The 300+ nonviolent movements studied had a [success rate of approx. 53%](#) from 1900-2006. However, some limitations of this study include:

- The context for many of these social movements is overthrowing authoritarian dictators, rather than policy change or moral circle expansion in a Western liberal democracy (where this is the context for most EAs I would assume).
- The criteria for inclusion into the [NAVCO dataset](#) was that the movement was aimed at major political change, such as ending a regime, rather than social or economic campaigns, such as the Civil Rights Movement.
- Historic successes are not an indicator that the same tool would work in the future.
- The nonviolent campaigns selected were only a small subset of all the campaigns undertaken in this time period and will reflect a bias towards successful movements.
- There is no comparison to other forms of advocacy such as think tanks, academia, lobbying, etc.

Furthermore, from a [base-rate](#) led approach of looking at the biggest changes to society in terms of expanding our moral circle and structural political change, a significant number have been predominantly led through civil resistance: Civil Rights, Votes for Women, Marriage Equality, Indian Independence, anti-Apartheid, [revolutions](#) in the ex-Soviet Bloc and so on.

Analysis of Extinction Rebellion

In another example to try to determine if SMOs lead to policy change, below is an attempt to quantify the impact of Extinction Rebellion (XR) on policy change and reducing carbon being emitted into the atmosphere. This is where things become challenging and I have much lower confidence in the exact values presented. I would say I'm 60% confident on the values listed below but wouldn't be surprised if I was wrong in some places by an order of magnitude or more. Regardless, here are my estimates:

1. **Local government policy change:** Local authorities, a form of local government, have some influence on their carbon emissions. To start with, we can quantify the number of councils (the most common form of local authority) that have declared a climate emergency and put in a proposed date for net-zero, which currently sits at [300/404 \(74%\)](#) of all UK councils. No council had declared a climate emergency before July 2018, when XR launched, and most declared after the most reported protests in April 2019. In addition, by September 2019, [149 of the 238](#) of the local authorities studied here have net-zero target dates of 2030 or sooner. I would attribute XR 10-50% of the credit for shifting the previously agreed net-zero date from 2050 to 2030, due to their Overton Window-shifting demand of net-zero by 2025, the [widespread presence](#) of local groups that applied pressure to individual councils and significant profile in the UK.⁸ If even half of the 180 councils meet their climate targets by 2040, a slightly pessimistic assumption, that means XR would have reduced carbon in the atmosphere by 30% (my median estimate of XR's counterfactual influence on council net-zero pledges) x 10 years x 90 councils worth of CO₂e.
2. **Climate emergency declarations and shifting the [Overton window](#):** Other signs that indicate that XR has been highly impactful is how the Overton window and discourse around the climate crisis has shifted due to their work. One example is the adoption of the terms "climate emergency" and "climate crisis" within society, with Oxford Dictionary naming "climate emergency" the word of the year in 2019, showing a [10,000% increase in adoption from 2018](#). Generally, I think there is some value in referring to the issue as "climate crisis" or "climate emergency" which indicates a more severe issue rather than calling it "climate change", potentially encouraging more ambitious action.

In addition, the EU (with 28 member states) and [10 additional countries](#) have declared a climate emergency since the 28th of April 2019, just weeks after the April Rebellion hosted by XR. In addition, 2,043 jurisdictions have declared climate emergency globally, covering over [1 billion citizens across 37 countries](#). More detail on XR's role in these declarations can be seen [here](#) but there are reasonably strong reasons to believe that XR had a significant impact on the UK declaring a climate emergency. The most obvious one being that before XR, no one was advocating for a climate emergency declaration, so there are few other plausible explanations for this increased interest. Whilst the value

⁸ [Polling](#) by the Independent shows that 57% of the UK public knew of Extinction Rebellion, 20% higher than the next most well-known campaign, and with most campaigns failing to get 10% awareness.

of these declarations are challenging to quantify, especially due to [cluelessness](#), I estimate that these declarations are good in the short and long term. I can see them being good for two reasons:

- a. These countries have now legitimised the urgency of the climate crisis and their national policies will need to demonstrate plans to decarbonise, and are now more able to be held accountable for their actions.
- b. The demonstration of policy leadership by these countries. With some countries already having declared a climate emergency, it is logical to me that other countries globally will follow suit and have the same benefit of more ambitious plans to decarbonise, but in a greater number of countries. This will be especially powerful if it spreads to countries where carbon emissions are the greatest, such as China or India.

Finally, Extinction Rebellion's demand of reaching net-zero by 2025 has been a radical stance that has shifted the Overton Window of politically feasible net-zero dates. [This article](#) shows that XR somewhat influenced the Labour Party in the UK, the main opposition, in shifting their net-zero target from 2050 to 2030. Whilst direct attribution isn't clear, they would also have had a large indirect impact on the Labour Party by influencing constituents, who generally tend to be more environmentally conscious, who in turn apply pressure to MPs. As mentioned above, the former leader of the Labour Party [urged MPs](#) that they should endorse XR's demand of declaring a climate emergency, which [they later did](#). This is another key example of policy leadership that could have ripple effects on other countries as well as societally legitimising significant action on the climate.

3. **Potential government spending influence:** Some anecdotal evidence from recent conversations with several people who work in the Civil Service within climate change-related departments is that XR has significantly impacted the ambition of work and priorities within government. Given that the UK Government Climate Finance spending was [£5.8 billion over five years from 2016-17 to 2020-21](#), and it has now doubled to [£11.6 billion from 2021-2026](#). Although XR was not directly advocating for increased international climate finance (nor many specific policies for that matter), I believe the concern they generated around the climate would have been a strong influence for policymakers to respond to shifting public opinion. I'm also using international climate finance as a proxy for broader government spending on climate change mitigation and adaptation, as that value is much more challenging to find. UK spending on climate change mitigation and adaptation, which XR would have also impacted, is larger than international climate finance spending so if anything, I expect the values to be slightly larger overall.

Based on conversations with people in policy making roles and other factors (media impact, public opinion polls, council declarations, etc.), I would estimate that a 0.1-5% (median 1%) increase in climate finance spending attributed solely to the impact of XR is plausible. Whilst they did not engage in specific policy advocacy and other groups

deserve the credit for that aspect, XR's shift of the [Overton Window](#) of UK climate action was significant. This leads to a leverage factor of 7.7-387x more money generated for climate finance vs money spent on XR. [See calculations here.](#)

Another example is the claim that the rise of Friday For Future and the Student Strikes for Climate influenced a large pledge by the EU to spend a quarter of their total budget, approx. €143 billion, on climate change mitigation, as [outlined by Reuters.](#)

4. **Sparking national policy debates:** Extinction Rebellion's actions (as well as that of Fridays for Future and Greta Thunberg) leading up to April 2019 led to two separate parliamentary debates, seen [here](#) and [here](#). According to Leo Barasi, a UK expert on policy and climate change, this makes these protests [6 of among 26 climate-related events](#) to lead to parliamentary debates.
5. **The creation of the Climate Assembly:** The [third demand](#) of XR was the creation of a legally binding [Citizen's Assembly](#), meaning a randomly selected group of citizens would decide the pathway for the UK to reach net-zero. This was a partial success for XR, as there was a [Climate Assembly](#) commissioned by the UK government, however it wasn't legally binding. This Climate Assembly produced a series of [recommendations](#) to the UK government, on their path to net-zero. The UK Department for Business, Energy and Industrial Strategy Committee then launched an enquiry into the findings of this report which was then [debated](#) in the House of Commons by MPs. The impact of the Climate Assembly is outlined in this [evaluation document](#), indicating the Climate Assembly played an "agenda-setting" role in UK policy-making on climate issues, as well as receiving large amounts of positive media coverage

Again, I'm not advocating for funding Extinction Rebellion now as after a certain time the marginal impact per dollar donated is no longer cost-effective compared to other interventions; this has been argued by [Johannes, Alex and others](#) about other movements, namely the Sunrise Movement in the US. Rather, the point I am making is that an early-stage SMO can have a huge impact on public opinion, and therefore policy change and utility created in a given cause area.

2.3) Tractability: How easy is it to fund and/or incubate an effective social movement?

Based on the following claims, I believe funding and incubating effective social movements are highly tractable:

1. There are a relatively small number of people needed to launch an SMO successfully
 - a. In my opinion and experience, you need roughly 6-8 committed people to work together full-time for a year to have the groundwork to successfully launch a social movement. I'm making this estimate based on information from the Civil Rights Movement, the Sunrise Movement, Extinction Rebellion, and in my personal experience, Animal Rebellion.
2. You don't need many resources or specialist knowledge

- a. Following on from the following point, due to the limited number of people required, I believe you could launch a social movement with reasonable chances of success for less than £100K. This is a relatively small number for the amount of EA funding available.
- b. Launching a social movement can be done by people who have little experience in activism or campaigning, provided they have some experienced leaders, mentorship and the right support and information. Most people I have worked with at Extinction Rebellion and Animal Rebellion have never been involved in this work previously yet can excel quickly, as it requires primarily generalist skills. The caveat here is that you would need at least two or more experienced people to design the initial strategy and ensure things stay on track.

2.4) Neglectedness: Are effective social movements neglected in an age of protests?

Whilst social movements, protests, SMOs and campaigning groups are not at all rare nowadays, I believe impact-oriented and effective SMOs are neglected for certain cause areas.⁹ SMOs might not seem neglected when considering the visibility that protest groups attract on media outlets. However, for almost all causes in most countries, there are no mass popular movements for animal welfare, pandemics, extinction risk, global poverty, and so on. Furthermore, I believe that even when the area looks crowded by traditional charities, as the climate movement did 2-3 years ago with the existence of organisations such as Greenpeace or Friends of the Earth, XR still managed to have a huge marginal impact. At the time of XR's launch, however, there was no mass popular climate movement within the UK, which may have contributed to its rapid growth.

To my knowledge, there haven't been any attempts by EAs to create SMOs that take part in civil resistance, which is generally a popular (and as quantified below, potentially effective) strategy for social movements, in any cause area. On the cause-area level, I know the Animal Welfare movement in the UK is ready for an effective SMO, however, there is no such organisation in this role. I say this having been involved in grassroots animal rights activism for the past four years and doing it full-time for the last two years. This could also be true for long-termism, global catastrophic risks and voting reform, however, I have relatively low epistemic certainty. There is, however, a grassroots group forming to raise attention about biorisks, namely [No More Pandemics](#). I examine other potential cause areas where SMOs could be impactful [further down](#).

On the research front, there is a small amount of EA research into social movements and nonviolent protests. Most of it is in the form of historical case studies by the Sentience Institute into [the US Anti-Abortion movement](#), the [British antislavery movement](#), and several [more](#). [Giving Green](#) has recently released [some research](#) finding that activism, generally associated with nonviolent protest, played a causal role in influencing climate policy in the US in a

⁹ I would also like to make the distinction, which has been made several times previously, that neglectedness might [not be the best proxy](#) for marginal returns, which is what we ultimately care about

cost-effective way. Again, there is the [report funded by Open Phil](#) and conducted by the Ayni Institute on the need for funding social movements but this is quite positive and potentially biased. The limitations of this existing research is that it is predominately grounded in historical case studies, with little experimental data from recent years. Similarly, it doesn't quantitatively tackle the impact of these SMOs in an empirical way that we could reliably use to inform our strategies going forward. The exception to these limitations is the research by Giving Green, however it only focuses on one organisation, The Sunrise Movement, tackling climate policy in the US, which leaves questions around the generalisability of nonviolent protest

Limitations of wider [social science research](#) into civil resistance is that it often focuses on the role of nonviolence in political change rather than social or economic reform, and is generally focused on historical research rather than applications going forward. I believe there is a gap here for evaluating social movements as cost-effective interventions for various EA cause areas and comparing them to other intervention types (e.g. social movements vs policy vs corporate campaigns). In addition, this research could produce actionable insights into social movement theory that are utilised by advocates in driving positive social change more rapidly. More arguments for funding research in this area can be seen [lower down](#).

2.5) Are SMOs impactful at the margin?

Similar to the points on tractability, I think funding early-stage SMOs, before their public launch or in the first year of their activities can be extremely cost-effective and impactful at the margin for various reasons:

1. Before an SMO has launched publicly and can crowdfund, it is extremely challenging to get funding. There would be extremely limited scope to get money from other sources, as most foundations don't fund social movements, so any early-stage grants would be crucial in a successful incubation and launch. The donors and organisations that do fund SMOs tend to focus on established ones, rather than having the capacity or willingness to vet earlier stage SMOs, making it even more challenging and neglected. Once the SMO is launched, I believe a successful SMO would be popular enough to fundraise for themselves sustainably. In addition, successful SMOs would be able to fundraise from donors who would not have counterfactually donated to EA organisations, meaning that it increases the total number of funds being directed towards effective interventions. For instance, the Sunrise Movement had [revenue](#) that ballooned from \$50,000 per year to \$15 million per year in just four years.
2. SMOs tend to pay volunteer/limited wages (on the scale of £12-20K/year in the UK) so you could hire more staff at an SMO compared to a more established non-profit, by a factor of 2-3x. However, there could be a case made to increase the wages of people working in SMOs to reduce the level of financial hardship, ensure volunteers stay committed long-term, and reduce burn-out.
3. Generally, SMOs are started by people working on it part-time without pay and working multiple other jobs to cover their bills. This means the incubation process usually takes several years, or is rushed and therefore sub-optimal. An incubation grant of approx. £100K would mean a team of 5-8 could focus solely on the incubation and launch within roughly a year.

For evidence of this, I calculate XR's cost-effectiveness below as an example of the potential cost-effectiveness of other civil resistance-focused SMOs. As demonstrated below, it outperforms existing EA-recommended interventions when comparing it from multiple different angles. When including the non-quantified factors such as carbon averted or narrative adoption in XR's case, we see the difference in impact increase in size.

Similar to what is [written by Founders Pledge](#) about seeding early-stage non-profits, I believe the same is true for seeding early-stage SMOs. That being, funding SMOs can be impactful and high leverage for the following reasons:

- Since SMOs generally want to grow to become popular mass movements, their intended scale is large. Crucial funding early on can get the SMOs over the incubation hurdle and unlock a potentially huge mass movement which then has the ability to fundraise money from the public that counterfactually might not have been diverted to this cause.
- In addition to unlocking money, the same could be done for human capital, as people often leave jobs and spend many hours working on a movement they would have not done otherwise if that SMO did not exist.

2.6) Timing and the role of different actors

[Moyer \(1987\)](#) developed what is known as a [Movement Action Plan](#) (MAP), a map describing the various stages that social movements move through over time.¹⁰ The MAP describes the role of different actors, namely:

- **Reformers** - Reformers are those that advocate for much smaller changes relative to the rebel. They believe in the wider institutions within society and advocate for reforms that rebels are often not happy with. An example of this would be [Eating Better](#), a group advocating for 50% less meat and dairy consumption, whereas [rebels](#) would want close to 100% reduction.
- **Rebels** - The activist that people most commonly associate with social movements. Their favoured strategy is nonviolent protest and examples of this would be Extinction Rebellion and Black Lives Matter. Their key role is putting the issue on the public radar and creating public attention.
- **Citizens** - These are your 'ordinary' citizens and people from the public who broadly agree with the movement, e.g. the [80% of people](#) in the UK are concerned about climate change. This group is essential to apply pressure to politicians and policymakers to utilise the attention created by rebels.
- **Change Agents** - Change Agents promote education and convince the majority of society, generally using grassroots organising, on the issues. The members of this category are less obvious, but [Friends of the Earth](#) or [The Humane League](#) seem like reasonable candidates. There is a potential overlap here between reformers and change agents in that both of the above groups could be represented there if it wasn't for their additional focus on public education and grassroots organising.

¹⁰ [Moyer, B. \(1987\)](#). The movement action plan: A strategic framework describing the eight stages of successful social movements

A graph with some more characteristics, as well as some ineffective traits for these groups, can be seen below.¹¹

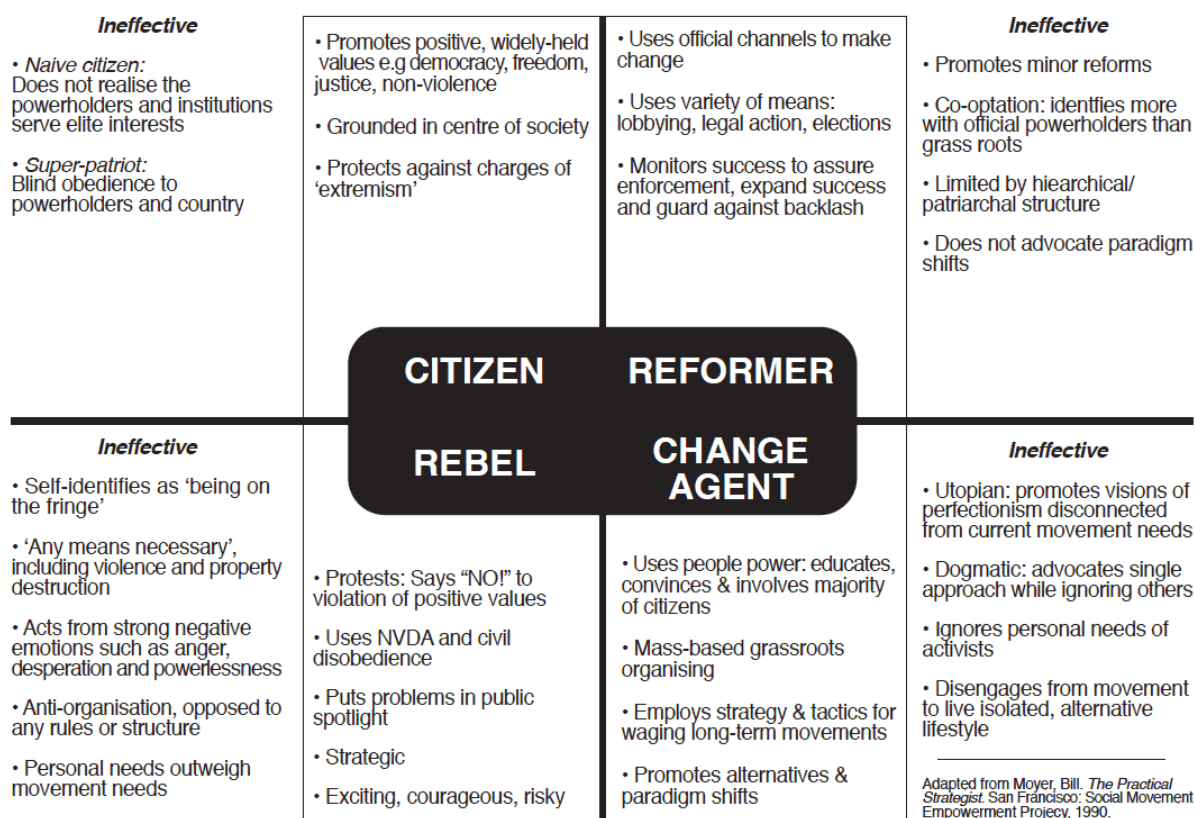


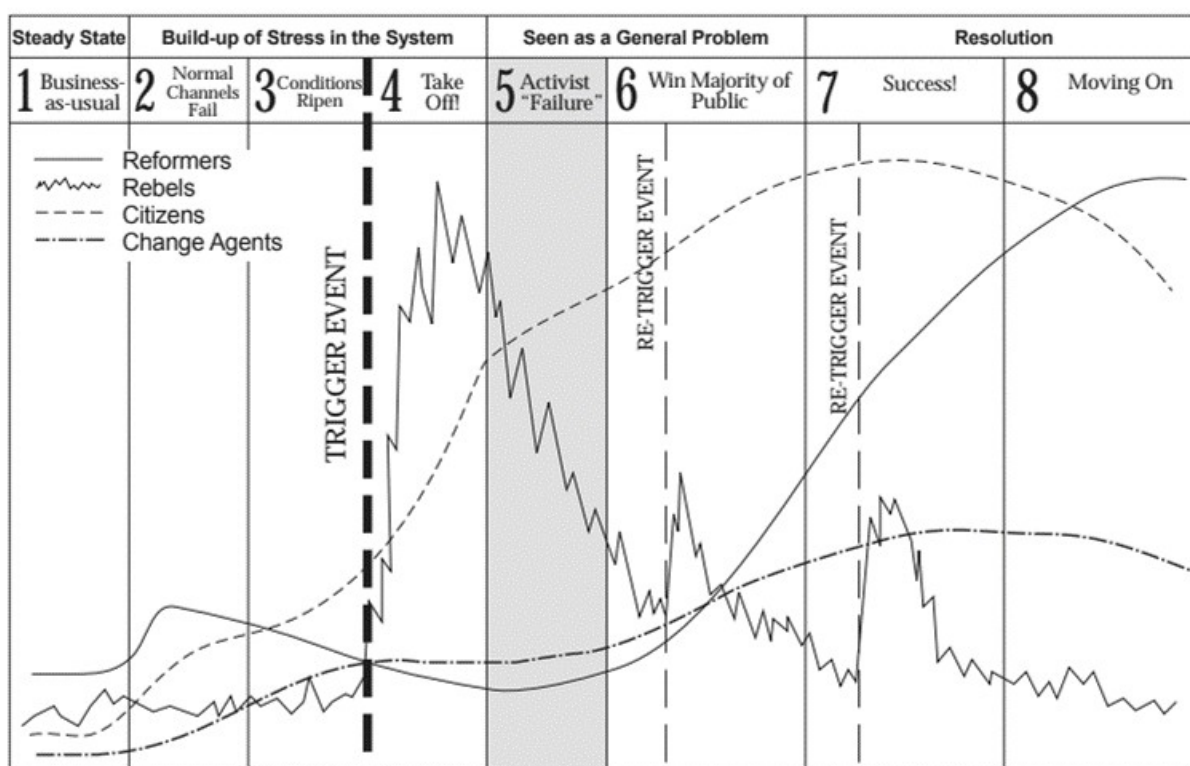
Figure 6: The role of different actors within social movements, proposed by Bill Moyer

¹¹ [The four roles of social activism](#) - Bill Moyer

The MAP below then shows how the engagement of these different four actors change over the various stages of a social movement's progress. In brief, the eight stages of the social movement can be described as:

- **Stage One: Business-as-usual** - The movement aims to get people thinking there is an issue
- **Stage Two: Normal Channels Fail** - Litigations, letter writing, voting and other "normal" channels for the public to voice their discontent at this issue prove to be ineffective in creating change.
- **Stage Three: Ripening Conditions** - Development of a public social movement where protests begin to happen
- **Stage Four: Take-Off** - There may be a [trigger event](#) which catapults the movement into the public eye, leading to increasing mobilisation, protests and public support.
- **Stage Five: Perceived Activist "Failure"** - After a honeymoon period, the size of movement events might decrease, with less media coverage, leading to a sense of failure or that the movement is over.
- **Stage Six: Majority Public Support** - At the same time of perceived failure in certain groups, public support has grown dramatically and other actors now get more involved in creating change.
- **Stage Seven: Success** - A long process that often has no clear cut victory but it is the work of years of effort by reformers, change agents, rebels and citizens. Might look like policy changes heading in a certain direction.
- **Stage Eight: Moving On** - Rebels are often lost without something to fight for, so it's common to try to consolidate your wins and move onto other pressing social issues, where the cycle repeats.

I recommend reading the [full paper](#), or [this summary](#), to get a deeper understanding of the MAP.



The Four Activist Roles - Participation

Adapted from Moyer, Bill. *The Practical Strategist*. San Francisco: Social Movement Empowerment Project, 1990.

Figure 7: The Movement Action Plan (MAP) highlighting the role of different actors at different stages of the social movement. The y-axis can be thought of as active participation in the movement or engagement.

A small caveat is that this work is mostly theoretical and backed by [several case studies](#), as the main source of evidence. However, from my experience of being involved directly in social movements, I believe the MAP is an accurate portrayal of the dynamics at play.

2.7) What does the MAP and role of different actors mean for funders and advocates?

Given that we now have a clearer picture of the various roles that different actors play in progressing social change at different times, we can better understand where to focus our efforts. In the context of this research, it seems impactful to [allocate greater resources](#) towards 'rebels', or SMOs, before and during trigger events. Whilst it's not clear when external trigger events, such as extreme weather events or [police repression](#), might occur, some trigger events can be manufactured within the movement, such as the '[Rebellions](#)' organised by XR. Depending on the existing popularity and size of the issue we're concerned about, it might make sense to fund various actors. For example, earlier-stage movements that have comparatively little public attention, such as voting reform, might be more suited to funding 'rebels' relative to

an already well-established movement, such as the climate movement, that might need more reformers. It seems plausible that funding SMOs before significant public attention (although it's debatable where this line is) could be successful in generating or capitalising on a trigger event, leading to increased public support. The analysis will have to be done on a case-by-case basis to map out the levels of public engagement on that issue to best decide the holistic strategy going forward, one that accounts for all the actors in the system.

If funding rebels seems promising, Carlos Saavedra from the [Ayni Institute](#) states there are five ways that funders can support social movements, with more information in [this article](#):

1. Fund trainings, before a trigger event, that will empower people to make the most of a social movement upheaval
2. In the midst of trigger events, give small stipends to sustain “anchor volunteers.”
3. Help established organizations absorb new people during movement moments.
4. Fund longer-term infrastructure to support the basic needs of movement organizers.
5. Fund those courageous enough to escalate for future cycles.

2.8) Counterfactual of not incubating or influencing early-stage SMOs

Incubating or funding SMOs in their early stages can help them become more aligned to EA values of effectiveness, evidence-based decision-making and intervention neutrality. The risk of not funding SMOs in certain cause areas where social movements develop organically is that they might ‘lock-in’ negative stereotypes or worldviews about certain interventions which then hinders the progress of the movement in the long run, as it has arguably happened in the climate movement. An example of this is that over the past 30-40 years, biases and stereotypes against nuclear energy have become the dominant ideology, going against the current science that indicates nuclear energy would be important in mitigating the climate crisis. [Recent studies](#) show that the impact of Germany decommissioning nuclear power in favour of coal-powered plants led to an additional 5% rise in CO2 emissions in Germany and 1,100 deaths per year. Another example is the [Sunrise Movement](#), [Greenpeace](#), [Friends of the Earth](#) and other climate groups who oppose CCS, another technology that academics support in being essential in mitigating extreme risks by climate change. Essentially, an EA-aligned SMO could take the place of a potentially negative SMO which could greatly alter the success of the movement in the long-run.

In other cases, impactful social movements might develop organically but this generally already happens when an issue becomes mainstream, which could be on the scale of 5-30 years away. For causes that EAs care about that aren't mainstream yet but have the potential to be, such as AI safety or long-termism, there could now be a counterfactual benefit of incubating an effective SMO sooner than its organic launch. This will have clear positive effects such as greater time to influence policy, mobilise individuals, build a strong narrative and so on.

2.9) Replaceability

On choosing whether to work on social movements vs direct EA work, I believe the same arguments apply as outlined in this [paper on Replaceability](#) by Will McAskill. In essence, I believe the number of people willing to do direct EA work, earn to give or more 'traditional' EA career paths is significantly ($\approx 100-1000\times$ higher) than EAs who are willing to work in SMOs. Whilst the replacement for an individual working at an EA org might be another highly capable person, I believe this is not true for social movements. In my experience, the calibre of people working in SMOs seems to be significantly lower than your average consultancy work environment, as an example. This implies that most EAs who choose to work for SMOs could have a significant difference in impact produced, due to their replaceability factor. To quantify this, I would say it's likely (greater than 50% odds) that an EA in an SMO could have 2-10x (90% confidence interval) more impact than their replacement counterpart.

2.10) When social movements are preferable to and/or a useful complement to think-tank or NGO policy advocacy:

Whilst direct advocacy to policymakers is indeed an effective intervention, I believe it is only one part of the puzzle. Whilst direct advocacy might work on certain issues, there are also clear cases where it could break down due to political interests. One example would be the strong animal agriculture lobby making it challenging to progress animal welfare at the pace that animal advocates would like to see. If the political and economic influence of certain industries or actors, another example being the fossil fuel industry, were too great, this would significantly reduce the impact that direct advocacy could make. I believe these problems exist or will exist in the following cause areas: Animal Welfare, Climate Change, Criminal Justice Reform, Voting Reform, Improving Institutional Decision-Making and could exist in areas like Global Governance, Nuclear Security, AI Risk, Bio-risk or x-risks generally (as current actors could seek to de-prioritise future issues for present-day personal gains in funding as an example). Further discussion on potential applications of social movements to EA cause areas can be [seen below](#).

Another situation where changing societal values would help greatly is where technological advancements aren't sufficient to help the cause area to the degree required. The clearest example for me is in Animal Welfare, where if cultured protein doesn't reach price parity with the cheapest animal products, as seems likely by this [Open Phil commissioned report](#), then some non-technological interventions are necessary, such as a shift in societal values, to end the plight of farmed animals.

In these situations, I believe strong public support can have a substantial impact in tipping the scales towards positive policy changes, as we are now seeing in the environmental movement. Essentially, politicians have a vested interest in keeping the public on their side to increase their chances of (re)election, so this can be a tool in driving progressive policy change.

Another benefit of social movement advocacy is that it tends to be a broad intervention, shifting public opinion generally on an issue. This can lead to pressure for policy change across a variety of areas, whereas targeted policy advocacy generally hones in on one specific piece of legislation or policy. Examples might be that [CATF advocated for Q45](#), legislation that provides tax credits for carbon capture and removal deployment. Whilst extremely impactful in spurring low-carbon innovation, I would refer to this as a targeted intervention as it is unlikely to have spill-over effects into other aspects of climate policy, such as climate finance or electric vehicles. On the other hand, popular climate movements like Fridays For Future or XR can spur policy debates and apply pressure to a broad range of policies, from fossil fuel investment to electric vehicles and so on.

On the other hand, there are cases where targeted policy advocacy might be preferable over social movement protests and activities. One example might be in areas where there is no significant counter-movement or left-right political divide, meaning that influencing policy on that topic might be substantially easier than one with vested interests where public pressure is needed. Another clear example is where there are risks of [info hazards](#), where greater public attention on an issue such as biorisk could lead to greater danger if a misaligned actor chooses to use a bioweapon in a harmful way.

3. Cost-effectiveness: Extinction Rebellion (XR)

Disclaimer: *I'm between 40-70% confident on the final values and there is probably a lot of room for improvement. I've spent approximately 25 hours on this cost-effectiveness analysis and there is much more research I could do to refine it. This section is also mostly repeated from the 'Scale' section but with an added cost-effectiveness analysis. It might also be fairly technical or hard to follow at points for people not familiar with UK climate policy.*

This cost-effectiveness analysis applies to Extinction Rebellion UK from their launch, July 2018, until May 2019, which is roughly the time when I consider them to stop being cost-effective at the margin. As stated above, I am examining this specific use of civil resistance as a proxy for the potential cost-effectiveness and impact of other SMOs. The assumption I'm making is that other highly impactful SMOs will probably be within one order of magnitude in terms of cost-effectiveness to XR. I've opted to use a [cluster-thinking approach](#) and [many weak arguments](#) for this cost-effectiveness analysis (CEA), to try to determine the cost-effectiveness of XR from a variety of angles and using a range of metrics. The metrics I will be measuring area as below:

- 1) The greenhouse gas reduction impact (measured in carbon dioxide equivalent emissions averted) of local authorities in the UK moving their net-zero target to 2030 from 2050, as a result of campaigning by XR
- 2) The greenhouse gas reduction impact of the UK setting a more ambitious [nationally determined contribution](#) (NDC), as part of the UN Paris Agreement framework to mitigate climate change.

- 3) The greenhouse gas reduction impact of the UK setting a 2050 net-zero target a year or two earlier than without the work of XR, leading to a higher probability of achieving net-zero by 2050.
- 4) The increase in government spending on climate finance as a result of XR's advocacy

Summary tables of results (with [full analysis here](#)):

Cost-effectiveness of XR on carbon abatement				
	Pessimistic	Realistic	Optimistic	Notes
Local Authority net-zero targets: Reduction in CO2e per £ spent on advocacy	0.2	31	340	Cost/benefit ratio of CO2e averted per pound spent on advocacy, from local authority net-zero targets going from 2050 to 2030
Nationally Determined Contributions: Reduction in CO2e (up to 2035) per £ spent on advocacy	0.1	1.7	4.3	Cost/benefit ratio of CO2e abatement per £ spent on advocacy, from a new nationally determined contribution (NDC) of 78% reduction by 2035
2050 Net-zero target: Reduction in CO2e per £ spent on advocacy	0.0	6.0	24.0	Cost/benefit ratio of CO2e abatement per £ spent on advocacy, from setting a 2050 net-zero target earlier than without the work of XR
Other EA recommended Climate Orgs				
CATF - Reduction in CO2e per £ spent on advocacy	0.31	1.09	3.88	

Cost-effectiveness of XR on leveraging government spending towards climate				
	Pessimistic	Realistic	Optimistic	Notes
XR benefit/cost ratio: £ in UK govt. climate change spending (proxy being climate finance) increase per £ spent on advocacy	8	77	387	Cost/benefit ratio in UK Climate Finance spending increases per pound spent on advocacy
Other EA recommended Climate Orgs				
ITIF Benefit/cost ratio: \$ in clean energy R&D spending increases per dollar spent on policy	0.4	28	375	\$ in clean energy R&D spending increases per dollar spent on policy

How did I get my attribution percentages?

It's important to note that each calculation above has at least one subjective estimate, namely my estimate for the contribution that XR made towards each policy change (i.e. the attribution). These will be the most contentious values so I thought it was important to give some clarity on what informed my thinking. I also encourage others to copy the [spreadsheet](#) and use their own attribution values to get a sense of how it might look with different assumptions. Some of my thinking for this attribution was informed by a [document by Founders Pledge](#), on how to evaluate policy-focused organisations. You can see further discussion of these points [below](#).

3.1) UK Local Authority net-zero targets

Local authorities, a form of local government, have some influence on their carbon emissions. To start with, we can quantify the number of councils (the most common form of local authority) that have declared a climate emergency and put in a proposed date for net-zero, which currently sits at [300/404 \(74%\)](#) of all UK councils. No council had declared a climate emergency before July 2018, when XR launched, and most declared after the most reported protests in April 2019. In addition, by September 2019, [149 of the 238](#) of the local authorities studied here have net-zero target dates of 2030 or sooner. I would attribute XR 10-50% of the credit for shifting the previously agreed net-zero date from 2050 to 2030, due to their Overton Window-shifting demand of net-zero by 2025 and huge popularity in the UK. It seems highly unlikely that approx. 150 local authorities decided to do this exactly within one year of XR launching without significant influence from XR, especially given that XR local groups were lobbying locally for a net-zero target of 2025 for the entire period.

The kind of work that XR was doing in this capacity involves organising [protests](#), as well as engaging with the local government democratic process via attending meetings, speaking with councillors and building local public support. However, it is possible that another organisation could have done similar work to XR, albeit much less effectively, which could have influenced local authorities to set more ambitious targets. If even half of the 180 councils meet their climate targets by 2040, a slightly pessimistic assumption, that means XR would have reduced carbon in the atmosphere by 30% (my median estimate of XR's counterfactual influence on local authority net-zero pledges) x 10 years x 90 councils worth of CO₂e. According to the [Committee on Climate Change \(CCC\)](#), local authorities direct emissions account for 2-5% of emissions in their area and they have "strong influence" over another 33% of emissions through procurement, commissioning, place-shaping and more. A good summary of this information can be [seen here](#) with a [more detailed report by the UK government](#).

From their launch in roughly July 2018 until May 2019, XR had [fundraised £1,032,816.50 and spent £503,513.06](#). The disparity in these values is due to the very successful April protests, XR fundraised significant amounts (approx. £400,000+) and didn't organise the next large protests until several months later so had a significant funding overhang in May 2019. I'm using June 2019 as the cut-off as I believe this is when they stopped being a cost-effective intervention for EAs to fund, as the movement was now big enough to raise money via crowdfunding and

exhausted most of their marginal gains. Using XR's money spent value of £503,513.06, I calculated that their cost-effectiveness was 0.23 - 340 (median 31) [tonnes of CO2e averted per £ spent](#). It is important to note that there is relatively large uncertainty regarding the amount of carbon each individual local authority can reduce. In addition, I haven't accounted for the counterfactual value of all the unpaid labour done by activists within XR, which is talked about in a later section on [ways my CEA could be improved](#).

3.2) UK Nationally Declared Contribution (NDC) of 78% CO2e reduction by 2035

[Recently announced](#) on the 20th of April, the UK has committed to the following:

- UK government to set in law the world's most ambitious climate change target, cutting emissions by 78% by 2035 compared to 1990 levels. This change is set into a legally binding framework called a Nationally Determined Contribution (NDC).

For reference, this previous target held by the UK was a 68% reduction of carbon emissions by 2030, which was already the highest reduction target by a major economy. Using some rough calculations, the previous target of a 68% reduction in CO2e by 2030 is approximately the same as a 74% reduction by 2035, assuming a linear decrease in emissions. This means that the difference in emissions by the change in NDC is 4% of the 1990 level of CO2e. Using the attribution percentages of 1-10% seen [in this spreadsheet](#), that leads to a result of 0.1 - 4.3 tonnes of CO2e averted per £ spent on advocacy, up until 2035, due to XR.

3.3) 2050 Net-Zero Target

In June 2019, after the extremely successful and prolific protests by XR in April 2019 and November 2018, the UK government became the first major economy (and G7 country) to have a [legally binding net-zero carbon emissions target](#), and the second country globally to do so [after Sweden](#). One way in which this leads to a reduction in greenhouse gasses emitted is that the public pressure generated by XR might have caused the UK to announce their net-zero target several years earlier than they would have done otherwise. This in turn could lead to a higher likelihood that this net-zero target actually gets met by 2050, for political fear of reputational damage and loss of trust by the electorate, as well as having a head start on actually reducing carbon emissions. Based on a [progress report](#) by the UK Committee on Climate Change (CCC), it's reasonable to believe that the UK currently is not on track to meet our net-zero target, so additional public pressure could be vital in achieving policy change to match the UK's commitments.

Modelling several scenarios in [this tab](#), e.g. that the UK hits net-zero at the dates of 2050, 2052 and 2054, leads us to a range of 0 - 24 tonnes of CO2e averted per £ spent on advocacy. Here my key assumption is that in the counterfactual world with no XR, the UK might not have made climate emergency declarations or such ambitious targets and policies until 2-4 years later, which means they would have a higher probability of missing their net-zero by 2050 target. I've modelled this as dates when they actually hit net-zero. Specifically, I believe that in 100 worlds without XR, on average, in 5 of them, the UK will miss their net-zero 2050 target by two years. In reality, it's very possible that the UK will miss the 2050 net-zero target anyway but it seems plausible that XR's advocacy could have sped up this process in either case.

3.4) Change in UK Government Climate Finance Spending

Given that UK Government Climate Finance spending was £3.87 billion from 2011/2012-2015/2016, [£5.8 billion over five years from 2016/17 to 2020/21](#), and it has now doubled to [£11.6 billion from 2021-2026](#). In these calculations, I'm only accounting for a £3.87 billion increase in the most recent budget change as I assume the government would have at least increased the climate finance budget by the same increment it did in the five-year period before that, which was £2.03 billion.

Based on conversations with people in Government roles and other factors (media impact, public opinion polls, council declarations, etc.), I would estimate that a 0.1-5% (median 1%) increase in this value attributed solely to the impact of XR is plausible. Another way to frame this is that in 100 alternative worlds where XR did not exist, I believe there is one world where there was only a £2.03 billion increase in climate finance spending rather than £5.9 billion. This leads to a leverage factor of 7.7-387x more money ([see calculations](#)) generated for climate change vs money spent on XR. For reference, I've compared XR to a highly-rated EA climate charity recommended by [Let's Fund](#), the Information Technology and Innovation Foundation ([ITIF](#)).

An important consideration here is that the funding ITIF created was used for high-impact research into clean energy R&D, whilst the increase in climate finance spending generated by XR probably wouldn't have been directed to such a high leverage activity. Nonetheless, I believe this example illustrates that a social movement can be cost-effective and there is clear room for improvement if XR focused their energy on increasing spending specifically for clean energy R&D.

Cost-effectiveness estimates could also be carried out for more recent movements with more available data, such as the Civil Rights movement, Black Lives Matter or Occupy. This felt much more challenging as I am not familiar with these movements so this could be an area for further study. Some policy-change impacts of BLM are included in the Ayni Institute report however which I have included in [Appendix 1](#). I have not studied how much time or money was spent on achieving these changes, however.

Non-quantified impacts of XR:

There are other impacts that XR have had that I believe are too challenging to quantify due to the huge uncertainty I have around them. Due to this, I will try to estimate the approximate size of the impact (marginal, moderate and significant) and the direction (negative or positive). The spreadsheet with these summaries can be seen below and [here](#).

Impact	Size of impact	Direction	Notes	Source
Narrative adoption	Significant	Positive	2,043 jurisdictions have declared climate emergency globally, covering over 1 billion citizens across 37	Climate Emergency

			countries .	Declaration globally
UK Policy Leadership	Significant	Positive	UK government to set in law the world's most ambitious climate change target, cutting emissions by 78% by 2035 compared to 1990 levels. In addition, the UK was the first major economy and second country ever to have a legally-binding net-zero target. Whilst this is clearly not fully attributable to XR, I believe they've had a significant impact.	UK Government press release
Climate Assembly UK (CAUK)	Marginal	Positive	The Climate Assembly UK produced a series of recommendations to the UK government, on their path to net-zero. The Department for Business, Energy and Industrial Strategy Committee then launched an enquiry into the findings of this report, later debated in the House of Commons by MPs. The impact of CAUK is outlined in the evaluation document , indicating the it played an "agenda-setting" role in UK policy-making on climate issues, as well as receiving large amounts of positive media coverage	Evaluation of Climate Assembly UK
Other UK policy updates to reduce national GHGs	Marginal	Positive	In addition to the policies I've analysed here, XR has likely influenced other climate-related policies in the UK, such as the sales of diesel cars getting phased out by 2030. This is likely to have a small impact in reducing national carbon emissions, which plays a very small role in global emissions and therefore is only marginally useful.	
Public concern around climate (global and UK)	Significant	Positive	59% of people globally believe that we should do everything necessary to combat climate emergency and generally believe climate change is a global emergency (approx 65%) In addition, there are 1174 Global XR groups across 77 countries.	UNDP People's Climate Vote
Global policy changes	Moderate	Positive	The EU (with 28 member states) and 10 additional countries have declared a climate emergency since the 28th of April 2019, just weeks after the April Rebellion hosted by XR.	Climate Emergency Declarations: Wikipedia
Fatalism	Marginal	Negative	XR has been accused of using exaggerated data (from a paper called Deep Adaptation) citing that societal collapse from climate change is more likely than the evidence suggests. Consequences of this might be more fatalism around the climate, loss of hope and less willingness to act.	Article outlining flawed science used and implications of this

Worsening attitudes towards climate change/climate activism	Marginal - Moderate	Negative	It's possible that the disruptive tactics employed by XR have turned some people off being interested in climate change, losing some level of public support. It's likely however that these people would have counterfactually not been huge proponents or advocates for climate action if XR did not exist, so the negative counterfactual impact is fairly low.	
Political Polarisation	Marginal (in the UK)	Negative	XR explicitly presents itself as apolitical and not siding with any particular parties but instead insisting climate change is a bipartisan issue. Despite this, it does tend to be viewed as left-leaning by most. Broad political support for XR's aims can be seen by the supporters of the CEE Bill , with 118 MPs across eight parties (however with only one conservative peer in support). Furthermore, Budgen (2020) studies the impact of various forms of protest on political polarisation and concludes that there is no "backfire" effect of losing support from various political leanings due to nonviolent protest.	Paper showing that civil disobedience doesn't reduce support for climate change from Republicans

3.5) Narrative adoption and global Overton window shift

Other signs that indicate that XR has been highly impactful is how the Overton window and discourse around the climate crisis has shifted due to their work. I am too uncertain to put numerical values on how good these effects are but I'm 70% positive that they are net-good for climate change both short and long-term.

For instance, the EU (with 28 member states) and [10 additional countries](#) have declared a climate emergency since the 28th of April 2019, just weeks after the April Rebellion hosted by XR. In addition, 2,043 jurisdictions have declared climate emergency globally, covering over [1 billion citizens across 37 countries](#). More detail on XR's role in these declarations can be seen [here](#) but there are reasonably strong reasons to believe that XR had a significant (80%+) impact on the UK declaring a climate emergency. The most obvious one being that before XR, no one was advocating for a climate emergency declaration, so there are few other plausible explanations for this increased interest. Whilst the value of these national declarations are challenging to quantify, especially due to [cluelessness](#), I estimate that these declarations are good in the short and long term. I can see them being good for two reasons:

- i) These countries have now legitimised the urgency of the climate crisis and their national policies will need to demonstrate plans to decarbonise, and are now more able to be held accountable for their actions.
- ii) The demonstration of policy leadership by these countries. With some countries already having declared a climate emergency, it is logical to me that other countries globally will follow suit and have the same benefit of more ambitious plans to decarbonise, but in a

greater number of countries. This will be especially powerful if it spreads to countries where carbon emissions are the greatest, such as China or India.

Finally, Extinction Rebellion's demand of reaching net-zero by 2025 has been a radical stance that has shifted the Overton Window of politically feasible net-zero dates. [This article](#) shows that XR somewhat influenced the Labour Party in the UK, the main oppositional political party, in shifting their net-zero target from 2050 to 2030. This is another key example of policy leadership that could have ripple effects into other countries as well as societally legitimising significant action on the climate.

3.6) UK Policy Leadership

In June 2019, after the extremely successful and prolific protests by XR in April 2019, the UK government became the first major economy (and G7 country) to have a [legally binding net-zero carbon emissions target](#), and the second country globally to do so [after Sweden](#). As of writing this piece in August 2021, there are now [13 countries](#) who have a net-zero target, plus the EU which has 27 member states for a total of 34 countries (excluding some double counting). In addition, there are approx. [50 more countries](#) where net-zero targets are within policy documents or in stages of being passed. This means that to date, 59 countries, representing 54% of global GHG emissions, have [communicated net-zero emissions targets](#), including the world's two largest emitters – the United States and China. A caveat is that many of these NDCs are not legally binding whereas the UK's target is. Regardless, I believe having a net-zero target will make a country much more likely to make progress towards decarbonisation compared to the case of no target.

Whilst this is challenging to quantify numerically, I believe the policy leadership shown by the UK here is significantly positive in reducing global emissions. The actual reduction of UK emissions is a relatively moderate positive impact (due to the UK only emitting 1% of global GHGs). The key assumption is the significance of XR's role in these demonstrations of policy leadership. I would estimate XR to have contributed to the development of this net-zero target (for example by speeding it up by 1-3 years compared to the counterfactual scenario) by between 5-20%, which is significant. I chose this value due to conversations I've had with those who work in Government, the impact that XR has had in raising public awareness around the climate, the [political support](#) the very ambitious CEE bill (2025 net-zero target) has received from 102 MPs and generally subjective experience from living in the UK and experiencing how XR has shifted the conversation on the climate.

Other commitments made by the UK:

- The world's most ambitious climate change target, cutting emissions by 78% by 2035 compared to 1990 levels
- For the first time, UK's sixth Carbon Budget will incorporate the UK's share of international aviation and shipping emissions
- This would bring the UK more than three-quarters of the way to net zero by 2050

For reference, this previous target held by the UK was a 68% reduction of carbon emissions by 2030, which was already the highest reduction target by a major economy. This example of policy leadership shown in the UK I believe will have knock-on effects on other major economies (primarily the EU and North America I assume) to encourage them to set similarly ambitious legally-binding carbon reduction targets, also known as nationally determined contributions. Generally, it can be seen that national policy change has international spillover effects, starting a trend of policies and target setting in this case.

3.7) Other UK-policy benefits of XR

- a) **The creation of the Climate Assembly:** The [third demand](#) of XR was the creation of a legally binding [Citizen's Assembly](#), meaning a randomly selected group of citizens would decide the pathway for the UK to reach net-zero. This was a partial success for XR, as there was a [Climate Assembly](#) commissioned by the UK government, however it wasn't legally binding. This Climate Assembly produced a series of [recommendations](#) to the UK government, on their path to net-zero. The UK Department for Business, Energy and Industrial Strategy Committee then launched an enquiry into the findings of this report which was then [debated](#) in the House of Commons by MPs. The impact of the Climate Assembly is outlined in this [evaluation document](#), indicating the Climate Assembly played an "agenda-setting" role in UK policy-making on climate issues, as well as receiving large amounts of positive media coverage
- b) In addition to the policies I've analysed here, it's likely that XR has influenced other climate-related policies in the UK, such as the sales of diesel cars getting phased out by 2030. This is likely to have a small impact in reducing national carbon emissions, which plays a very small role in global emissions and therefore is only marginally useful.

3.8) Global effects of XR

- a) International policy
 - i) The EU (with 28 member states) and [10 additional countries](#) have declared a climate emergency since 28th of April 2019, just weeks after the April Rebellion hosted by XR.
- b) International concern for climate
 - i) In the [largest survey of public opinion](#) on climate change, conducted by the UN Development Programme, 59% of people globally believe that we should do everything necessary to combat climate emergency. Furthermore, approximately 65% of respondents believe climate change is a global emergency. Whilst it's not obvious how much of this was caused by XR compared to other actors or factors, there are some indicators that XR played a reasonably significant role. One, named above, is the popularising of the term climate emergency. Another would be the widespread popularity of XR, with [1194 Global XR groups](#) across 84 countries, indicating that XR had a large effect in catalysing climate action groups globally. Some further reasoning is given below in sections 3.10) to 3.15).

3.9) Potential negatives of XR

- a) Polarisation

- i) XR explicitly presents itself as apolitical and not siding with any particular parties but instead insisting climate change is a bipartisan issue. Despite this, it does tend to be viewed as left-leaning by most. However, I think relative to the extent of political polarisation seen in the US, XR's bipartisan approach has caused minimal political polarisation. Broad political support for XR's aims can be seen by the [supporters of the CEE Bill](#), with 118 MPs across eight parties (however with only one conservative peer in support). Furthermore, [Budgen \(2020\)](#) studies the impact of various forms of protest on political polarisation and concludes that there is no "backfire" effect of losing support from various political leanings due to nonviolent protest.
- b) Worsening attitudes to climate change/climate activism
 - i) It's possible that the disruptive tactics employed by XR have turned some people off being interested in climate change, losing some level of public support. It's likely however that these people would have counterfactually not been huge proponents or advocates for climate action if XR did not exist, so the negative counterfactual impact is fairly low.
- c) Fatalism around climate
 - i) XR has been [accused](#) of using exaggerated data (from a paper called Deep Adaptation) citing that societal collapse from climate change is more likely than the evidence suggests. Consequences of this might be more fatalism around the climate, loss of hope and less willingness to act.

Reasoning for attribution - How much of the impact was actually due to XR?

As mentioned above, my thinking for the attribution of these policy changes was informed by a [document by Founders Pledge](#), on how to evaluate policy-focused organisations. Namely, they list several factors when doing so:

- 1) **How crowded was the field when it started?** - Were there numerous organisations with the same aims and capabilities that could have replaced XR if XR didn't exist?
- 2) **Role of each actor** - the need to understand the various roles played by different organisations to determine which roles were necessary for achieving a certain outcome.
- 3) **Consistency of timelines** - Does the timeline for XR match the timelines for decision making within the government and the announcement of policies?
- 4) **Catalytic nature of the charity's work** - Conceiving and leading a campaign is much less replaceable than joining a campaign. Leading a campaign probably means that the organisation had a greater counterfactual impact.
- 5) **Nature of the government stance** - Is there evidence the government would have made the changes anyway without XR's campaigning?

Addressing all of these in turn:

3.10) How crowded was the field?

Arguments in favour of the field being crowded already:

- Greta Thunberg kicked off Friday For Future (FFF) and School Strikes for Climate (SS4C) with her first strike in August 2018. This led to the first mass coordinated school climate strike in January 2019 which mobilised 45,000 protestors in Switzerland and Germany alone.
- This later led to two large global climate strikes in March 2019 and May 2019, which mobilised [1.4 million people](#) across 2,200 events and hundreds of thousands across [1,600 events](#) respectively.
- There was a wave of climate activism already underway across Europe at the least, if not globally. This would reduce the role XR specifically played in raising public concern around climate and shifting the Overton window.
- There are [claims](#) that FFF and SS4C were influential in the large EU pledge for greater spending on climate change mitigation, which would reduce the role XR played in international policy leadership.
- It was a very opportune moment and context for the growth of climate activism. One factor being that in October 2018, the Intergovernmental Panel on Climate Change (IPCC) issued a dire statement: “a failure to limit the increase in global average temperature to 1.5°C above pre-industrial levels, it said, was likely to result in fires, floods and famines”, and that we had 12 years left to act. Another factor would be the meteoric rise to fame that Greta faced, boosting the profile of climate change, especially across young people and on social media.

Arguments against the field being crowded and XR being replaceable:

- XR had its first public actions in October and November 2018, which drew 1,000 and 5,000 people respectively, where both occurred before FFF organised large climate protests. This indicates that XR was already growing in size several months before FFF came into the scene fully.
- FFF, SS4C and the UK Student Climate Network (UKSCN, the UK equivalent of FFF) are all organisations of people predominantly under 18, so there is little room for any climate-concerned citizens over 18 to get involved with these organisations. Besides these organisations, no organisations were mobilising large groups of people to take action on the climate, which is exactly the role XR filled. In this case, XR was playing an extremely important role in mobilising people over 18 and increasing the total number of people mobilised.
- Extinction Rebellion was started by quite a [unique mix of people](#) who I believe had the rare combination of skills needed to create a successful social movement organisation. From PhD candidates in social movement theory to fashion designers to university students to long-time activists, it was a wide range of skills that was held together by the motivation to tackle climate change using civil resistance, which is already a strategy that most don't subscribe to. From my personal experience within activism for the past five years, I can confidently say it's extremely rare to find such driven and talented people who manage to launch a project of this scale without self-imploding due to conflict and governance issues. This makes me think that XR was not very replaceable and that it would have been extremely challenging for another organisation to reach the same scale and impact XR did.

3.11) Role of each actor

Arguments in favour of XR having a small role relative to other actors:

- XR was only involved in what one might call a “broad” intervention, in that their dominant impact was raising public concern for the climate and generally encouraging climate action, but not meaningfully advocating for a specific set of policies.
- Other organisations would have been working “behind the scenes” to do specific policy advocacy and lobbying efforts to further the climate policies that did pass. Specific examples would have been the Green Party and Labour Party in the UK who would have put pressure on the existing government to declare a climate emergency.
- Similarly, XR rarely spoke about climate finance so it’s highly likely that other climate policy organisations, such as the [Committee on Climate Change](#) or [Green Alliance](#), played a much larger role in the change of climate finance policy or setting of a more ambitious NDC.
- The UK has been designated to be the host of COP26, an international climate conference, [since September 2019](#). This makes it more likely that the UK would announce more ambitious climate policies closer to COP26 (in November 2021) to seem more progressive.
- David Attenborough is an extremely influential UK public figure and there’s reason to believe that his more climate-focused documentaries, released [predominately in 2019](#) and beyond, played a role in influencing public opinion on climate change.

Arguments in favour of XR having a large role relative to other actors:

- One of XR’s key demands, unique to XR alone, was for the UK to declare a climate emergency. This indeed [did happen](#), with most attributing this to XR’s protest, indicating that XR did play a significant role in influencing UK policymaking.
- YouGov, a polling organisation, indicated that they think the [large increase in public concern for climate change](#) was partly due to Extinction Rebellion (besides other factors such as a David Attenborough documentary and FFF. [Analysis by CarbonBrief](#) shows a similar result in attributing some of the increasing public concern to XR

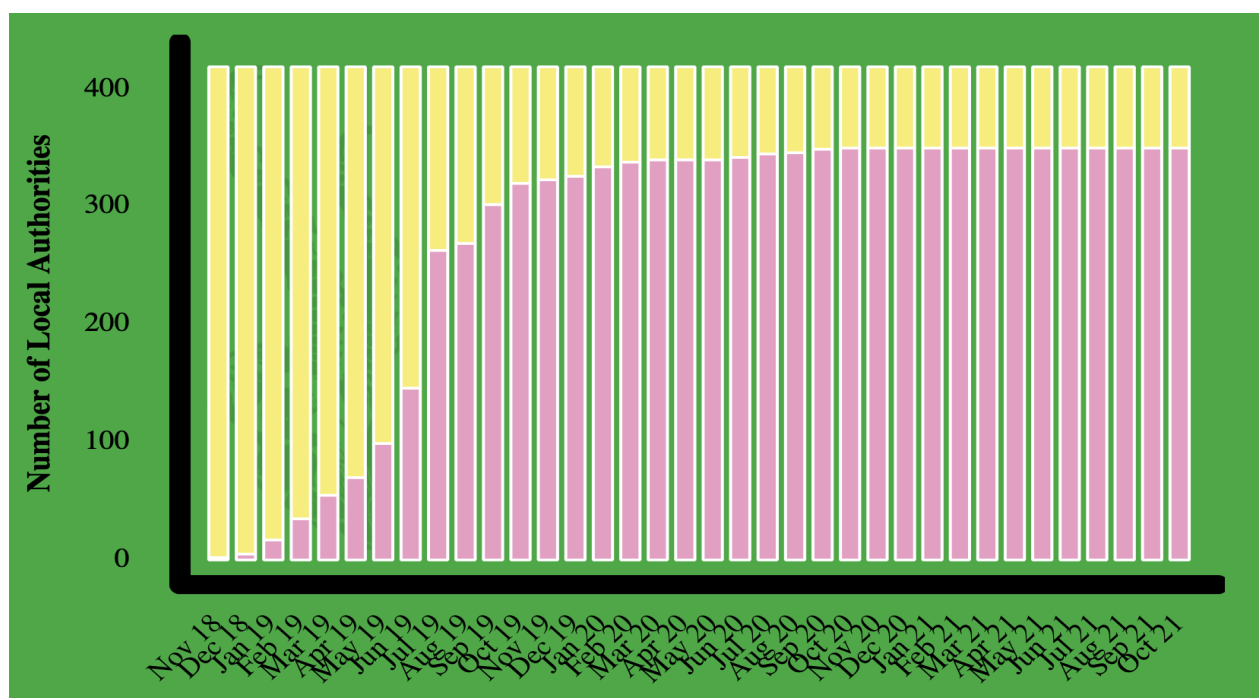
3.12) Consistency of timelines

Arguments against consistency in policy timelines:

- Whilst there are no standard timelines for policy development and deployment, it would generally be accepted that it is on the order of several months to years.
- As aforementioned, the UK’s increase in NDC ambition was in May 2021, which comes just 5 months before COP26, where countries are asked to submit more ambitious greenhouse gas emission reduction targets, with additional eyes being placed on the UK as the host of COP26 and an expectation for particularly ambitious NDCs.
- The introduction of the 2050 net-zero date came on the 27th of June 2019. This was only several months after XR’s largest protests in April 2019 so this could be a reason to lower attribution to XR, as the policy might have been in the pipeline beforehand.

Arguments in favour of consistency of XR and policy timelines:

- Following on from the 2050 net-zero pledge, XR did first emerge in August 2018, with relatively large protests in November 2018 and sustained actions up until (and past) April 2019 so there is a good reason to believe that the pressure they started applying from November 2018 was a non-negligible factor in the net-zero pledge announcement in June 2019.
- Local authority net-zero pledges started coming in fast after the first big protest in Nov 2018 and accelerated after April 2019. There were zero pledges before November 2018, with the first two happening in November 2018, one before and one after the protest. Importantly, the first local authority net-zero pledge happened in Bristol, where XR had a significant presence (along with a Labour and pro-climate mayor). The take-off of these climate emergency declarations and 2030 net-zero pledges increases dramatically over the next few months, with 149 2030 or sooner net-zero pledges by 2019. XR over this period had significant growth, going from approx. [7,000 people on their mailing list](#) in December 2018 to 140,000 in September 2019. The take-off of climate emergency declarations can be seen in the graph below on XR's (outdated) metrics website [here](#)
- Evidence of XR's influence on the [UK's national climate emergency declaration](#) can be seen through the [two parliamentary debates](#) that took place in the wake of their largest protests in April 2019. This declaration followed extremely soon afterwards, on May 1st. This short timeline can be explained by the fact that a climate emergency declaration does not actually tangibly influence government spending or priorities, therefore it can be passed at quick notice without great need for deliberation or research. Furthermore, the climate emergency declaration demand was unique to XR and not advocated for by other groups.



3.13) Catalytic nature of XR's work

Arguments against XR's work being catalytic:

- One could argue that the popularity and success of XR crowded out other climate organisations from emerging and being even more effective. I however believe this is tenuous as I highly doubt other organisations would have been as popular and able to mass mobilise as XR did.

Arguments for XR's work being catalytic:

- One argument for XR's work being catalytic is that there was no mass popular climate movement in the UK or globally (Fridays for Future was only youth-focused) before they started. As of October 19th 2021, there are [1194 XR local groups](#) globally in 84 countries, indicating a huge growth over the past three years. Similarly, XR had the largest number of local groups of any climate organisation within the UK, with [hundreds of local groups](#). This has likely catalysed climate actions on all levels of society, across the globe.
- In addition, the work of XR catalysed the birth of other organisations that used similar tactics or were inspired by the success of XR. Notable examples are:
 - The [CEE Bill Alliance](#), a parliamentary bill advocating for a more rapid transition to net-zero within the UK, which has the support of 118 MPs.
 - The [Climate Emergency Fund](#), a grant-making foundation that was created specifically due to the success of XR and continues to fund climate movement organisations today.
 - Similar campaigning organisations: [Animal Rebellion](#), [Insulate Britain](#), [Wildcard](#), and so on.

3.14) Nature of government stance

Arguments in favour of the UK government being likely to implement these policies anyway:

- Again, the UK hosting COP26 adds a factor that the UK might have made some of these policy decisions even in the absence of XR.
- The release of the [IPCC 1.5 degree special report](#) on the 8th of August 2018 might have been an influence for the UK government to start taking more urgent climate action.
- In addition, the UK Committee on Climate Change (CCC) has [yearly progress reports](#) to the government which play a role in increasing ambition and climate policy.

Arguments against the UK government being likely to implement these policies anyway:

- Following on from the CCC reports, they indicate we're making slow policy progress towards our targets in many sectors and industries so it seems the UK, like most countries, isn't taking urgent enough climate action across the board.
- Climate emergency declarations was a concept popularised by XR and it's highly unlikely the government would have enacted that without pressure.

- The focus by XR on a 2025 net-zero date was a significant shift in the Overton Window, which probably played a large role in local authorities shifting their net-zero targets from 2050 to 2030. No other groups to my knowledge were campaigning so strongly or popularly for a 2025 target.
- The presence of strong XR groups (e.g. Bristol, Brighton and London) [tends to correlate](#) with earlier net-zero pledges.

In addition, Founders Pledge lists some sources to gather information and testimony regarding the impact of certain organisations and their varying levels of desirability. To specify who I have spoken to concerning the impact of XR, it was two civil servants, one of whom works within BEIS, which is the UK Government Department for Business, Energy and Industrial Strategy, the main department for climate change-related policy. It's important to note that the people I've spoken to were not directly involved in the policy changes listed but rather talking about the general sentiment of XRs impact on their policymaking. Whilst these conversations happened over a year ago, both were confident that XR had impacted the level of ambition within government climate policy, causing civil servants to carry out work that would not have happened otherwise. One anecdote shared was that after the April 2019 protests, when XR was demanding net-zero by 2025 when no one else was, BEIS commissioned an internal report on how challenging it would be to reach net-zero by 2025. This to me is reasonably clear evidence that XR at the very least impacted the level of ambition shown with climate-related policymaking, increasing the likelihood for most progressive policies to pass and potentially leading to policies with greater financial or carbon-related commitments.

Other sources of information that informed my analysis and estimates are as follows, from an order of more credible to less credible:

- UK government announced a climate emergency declaration, one of XR's three main demands, soon after their popular protests in April 2019
- Two parliamentary debates on climate change specifically attributed to the XR protests, seen [here](#) and [here](#).
- Local authorities declaring a climate emergency and making more ambitious net-zero targets soon after the protests in April 2019. The locations of these commitments also correlate well with the relative size of XR in various locations, with places such as Bristol and London having large XR groups and making these commitments relatively soon. A quick note that this could also be because more green local authorities will naturally have more climate activists so this is not causation by any means.
- [Opinion polls](#) showing increasing public concern for the climate and XR being listed as a significant factor.
- [Media articles](#) outlining [political parties](#) considering climate policy changes, with XR being named as a factor.
- Narrative adoption of the term "Climate Emergency", predominantly coined by XR, by politicians and public figures across the UK.
- Extremely widespread media coverage of XR both in the UK and internationally.

3.15) Ways my cost-effectiveness estimate could be improved or is misleading:

The direction and magnitude of these effects are highlighted by the number of minus or plus signs within the brackets.

- 1) (-) It doesn't account for the counterfactual value and opportunity cost of the paid and unpaid labour for people who worked on XR.
 - a) Social movements such as XR are predominantly organised by a large number of unpaid volunteers and a small number of volunteers who receive small stipends to cover basic living costs. I haven't accounted for the counterfactual value of all these volunteers. There are cases where this counterfactual value could be quite high if some volunteers, who might be especially talented in certain areas, would have given their time and energy to other opportunities that could have been an equal or even higher impact. In other cases, volunteers might have simply spent the free time that was going to XR on other less-effective volunteering, such as with traditional NGOs such as Greenpeace, Friends of the Earth or their local Green party. The best counterfactual case is that these volunteers would have not volunteered in any cause or charity at all if it was not for XR. My intuition is that there are few extremely high impact volunteering opportunities so it's not immediately clear to me that there was a more effective place to volunteer for those interested in mitigating climate change and who only had 2-20 hours per week to give. Additionally, most volunteers who were involved in XR did not have the specialist skills or experience to do effective technical climate advocacy as that of the [Clean Air Task Force](#) or [TerraPraxis](#), so it's unlikely they would have been even able to land these volunteering opportunities if they did even exist. Due to these reasons, I estimate the counterfactual value of volunteer time to be quite low and if anything, XR catalysed many people to get involved in climate action who would not have done so otherwise, which seems like a large positive for me.
- 2) (--) Some of the main parameters for calculating the impact of XR involve a subjective assessment of the role XR played in affecting policy, and my motivated reasoning might cause the numbers to be too high.
 - a) [Motivated reasoning](#), similar to confirmation bias, are obvious reasons why I might have subconsciously selected data that fits my worldview that protest groups such as XR are effective. In addition, motivated reasoning could have led me to be too generous when attributing causality to XR, giving them a higher percentage of the share for a specific policy change than was accurate. Having read [The Scout Mindset](#) towards the end of this project, I noticed that I was using the framing "Can I believe this" rather than "Must I believe this?" when it was for data or subjective assessments that reaffirmed my beliefs. I've gone back several times independently and after feedback from people to revise my attribution rates to XR to a much lower number than they were initially. Of course, this might still have some level of bias so I encourage people to copy the [spreadsheet](#) and use

their own attribution values to get a sense of how it might look with different assumptions.

- 3) (??) I'm highly unsure of the carbon reduction potential of local authorities and how much influence they have over their own emissions
 - a) There is a fairly large range given by the CCC in estimating that 2-38% of local authorities emissions are within their scope to change. Greater certainty on this would help me calculate a more accurate value for the impact of XR on reducing local authority emissions.
- 4) (-) I don't include the fundraising and spending of XR local groups in this calculation
 - a) This is quite a small value relative to XR UK centrally so I can't imagine it would add more than 5-10% of the cost.
- 5) (?) The discount rate/trajectory to net-zero for councils is unknown. I'm assuming they will do so linearly over the timescale of their decarbonisation.
- 6) (--) An important consideration here is that the funding ITIF created was used for high-impact research into clean energy R&D, whilst the increase in climate finance spending generated by XR probably wouldn't have been directed to such a high leverage activity, meaning it could be less impactful overall.
- 7) (??) I have very little understanding of the role that XR has in influencing climate finance within the UK. Could have more conversations with people in the Civil Service and other experts/policymakers to see if greater public support for climate change or the work of XR generally could have led to increased spending on climate finance.
- 8) (???) The narrative adoption impact might only become more visible over the course of 5-20 years. Similarly, intuitively I believe that XR led to a cultural shift in how we view the climate from "climate change" to "climate emergency" and introduced the existential threat element. However, I'm not sure where one can begin to quantify a cultural shift.
- 9) (-) I don't try to quantify the negatives that XR has caused
- 10) (???) I've neglected some large impacts, such as the impact of XR on the long-term future, or they have not come to fruition yet.

3.16) How future cost-effectiveness might look:

- 1) (++) We've been able to learn from the activities of XR and other social movement organisations to better implement new SMOs going forward
- 2) (--) It might be challenging to find another cause area that is easily explainable, broad enough to have a popular base as well as being important, neglected and tractable.

- 3) (--) It could be that XR is a significant outlier and that the vast majority of movements don't succeed, such that the expected value is much lower than I expect.
- 4) (-) It's unclear to me how successful these organisations will be in different cultural contexts and countries. I assume it might be less successful in countries that have less familiarity with protest groups, however, I'm quite unsure.
- 5) (+) I believe SMOs would be most effective in countries with relatively little awareness of certain issues, so it could be cost-effective to focus on regions outside of Europe and North America if advocating for causes such as animal welfare and climate change.
- 6) (-) Using disruptive tactics too regularly might desensitise people to the sacrifice shown by people getting arrested, meaning nonviolent protest becomes less effective over time.
- 7) (- / +) Governments and police learn how to crack down on nonviolent protest organisations, with new [policing powers](#), [imprisonment of peaceful activists](#) and [seizing of equipment](#). A counterargument to this would be that this invokes a '[backfire](#)' effect, where increasing police repression can actually generate more sympathy, attention and support for a cause.
- 8) (+) A significant number of people have been involved with protests and direct action, received various training and gained relevant experience thanks to the rise of XR globally. This might mean that these people will both be interested in pursuing movement-building activities for other causes and that they will be better at it, thanks to previous learnings and experience.

4. How could SMOs be applied within EA

I believe SMOs are especially powerful when a movement is relatively young, and the issue needs more attention by both the public and policy-makers. The strength of social movements are in doing the following:

1. Raising awareness around an issue
2. Building public support for certain policies or issues
3. Shifting societal and cultural values

In my experience, social movements tend to work best when the issue they focus on affects broad populations of the demographic, is emotionally arousing and relatable. Here I'll list some examples of where I think SMO interventions could be useful vs where I think they won't be, although these lists are not exhaustive. As a disclaimer, I haven't given this list more than 20 minutes thought but wanted to broadly illustrate the variety of cause areas where social movements doing civil resistance could be impactful.

Where it could be useful:

1. Animal Welfare:
 - a. Our food consumption affects everyone and food is a strongly emotive issue, along with concern for animals, leading me to believe this is a space where this could be a worthwhile intervention.
2. Pandemics and bio-risks

- a. COVID-19 has catapulted the salience of pandemics and bio-risks into the public consciousness so it seems like a very opportune moment to harness the public energy towards a stronger bio-risk governance policy. Some thoughts have been discussed on the EA forum by [No More Pandemics](#).
- 3. Nuclear risk
 - a. The [anti-nuclear movement](#) is arguably one of the most well-known movements in recent history. This issue has seen a significant reduction in popularity and salience in recent times however, whilst the risk of catastrophic nuclear events still remains [relatively high](#). As the movement has been strong historically, this suggests rebuilding it has strong potential and could play a role towards nuclear disarmament or reduction in existential risk from nuclear events.
- 4. Voting Reform (Improving Institutional Decision Making)
 - a. Similar to animal welfare, this affects the entire population of a given country and politics is inherently a fairly emotional topic. From a UK perspective, I believe there has been surprisingly little done about this topic given the relative impact it might have.
- 5. Long-termism
 - a. Social movements can often be used to promote more progressive values (civil rights, women's rights) so I believe they could also be used to foster care for future generations. To a degree, this is the same message used by the climate movement so I see no reason why it can't be replicated purely for longtermist values. Also, this [recent Forum post](#) recommends increased political advocacy to improve international cooperation to reduce existential risks.
 - b. *"Political advocacy to increase the prioritization of cooperation on existential risk. Methods of political advocacy include launching public awareness campaigns to spread knowledge of the benefits from international cooperation, contacting your political representative to explain the importance of this cause, and voting and fundraising for political candidates which prioritize this cause (although I am not aware of any candidates who have made any existential risk a major campaign issue)."*
 - c. One clear way to raise public awareness and pressure politicians, as I have outlined above, is through the use of nonviolent protest.
- 6. Other examples could be Effective Altruism/positive values generally, global catastrophic risks, AI risk, aid quality and quantity, strategic climate demands, etc.

Where it's potentially not useful:

- 1. Climate Change (if done in the same way as before)
 - a. I believe this space is already saturated with SMOs and nonviolent protests so it would be hard to see how a new SMO could meaningfully impact policy change to a degree that existing SMOs don't already do. However, I do believe that the limiting factors in progress towards rapid carbon emission reduction are a combination of political will and technological limitations, where SMOs can help with the former. There is also room for organisations to fill the void left by XR's recent decline and mobilise the millions of people interested in climate, incubate

climate movements in more neglected emerging countries or focus on more strategic policy demands such as low-carbon technological innovation.

2. Global Poverty

- a. This issue is already relatively well known and people are (reasonably) concerned, but it seems that it is currently being overshadowed by concern for climate change. In addition, I feel it may not be relatable enough due to it not affecting people in the UK directly for example, so people have less desire to take part in direct action. This cause area however could benefit from other strategies implemented by social movements e.g. letter writing or petitions.

5. Potential risks and considerations:

I'm going to attempt to preempt some arguments against funding or conducting further research into early-stage SMOs.

1. Protests or SMO activities can be controversial and incline people away from a cause, including through political polarisation.
 - a. As Owen Cotton-Barratt outlines in this paper on [Movement Growth](#), it's important to avoid the needless controversy that would affect the inclination of people towards the various movements. Whilst there is no doubt that certain protests can be [controversial and negatively impact a movement](#), there is no reason why a thoughtful and strategic SMO wouldn't avoid such activities. I believe this is an implementation issue that can be managed with good mentorship and learning from past movements, rather than one that is certain to happen or unavoidable. In fact, I think controversy is more likely to happen in an SMO incubated without EA values who are thinking about these consequences so we would potentially reduce the risk of cause areas becoming polarised by incubating more effective SMOs. A framing, provided by Vegard Beyer from [Future Matters Project](#), of how SMO organisers should be thinking is: "We win via adoption by the mainstream, so we need to normalise our ideas (sometimes using strategic provocations) so a larger share of the population will agree with them" rather than "we're righteous radicals, if others are offended it's proof of their corruption", which is sometimes the thinking utilised.
 - b. Owen's paper also outlines that some controversy can aid in the long-term to bring people to a stage of acceptance, where he used the example of the antislavery movement. Another consideration is that an SMO might carry out activities that are less controversial than disruptive protests, such as the litigation used in the Marriage Equality movement, or commonly seen peaceful marches. I have chosen to not focus on these activities for ease of keeping the scope of this research small for the time being, but it could be an area for further study. Some non-protest focused [social movement research](#) has also been conducted by Sentience Institute.

- c. [Budgen \(2020\)](#) examines the effect of various forms of protest, who utilised peaceful tactics, civil disobedience and violence, and how they affect partisan groups. An excerpt from the conclusion (emphasis mine) is as follows:

“For both Democrats and independents, protest increases support compared with a control condition. Critically, we observe no effect among Republicans. This is useful to emphasize if only because no effect is quite different from a negative effect. **Protest events simply do not influence how Republicans view the climate movement.**

...

Increasing support among Democrats and independents, combined with a lack of backfire effect among Republicans, suggests a “no-risk” scenario for protest leaders considering the effects a protest event will have on public support.”

Whilst this is only one study, this means current evidence points toward protests not being politically divisive in terms of actually reducing support from Republicans. As the author notes, it is a “no-risk” scenario in terms of organising a protest as it’s probable you will increase public support from Democrats and Independents with no significant loss from Republicans, leading to a net public support gain for your cause. Another interesting strategic note is the slightly better performance of peaceful marches in gathering support from independents relative to the more disruptive tactics of civil disobedience.

2. It is extremely hard to quantify the impact of social movements. There is no clear causal link between protests and policy change or positive outcomes.
 - a. Whilst I agree it is challenging to quantify the impact of social movements, I don’t believe this is a strong enough reason to rule out at least initial research to explore this further. That would be the whole point of a 2-person year research effort, to gain better information on the link between social movements and policy change. I believe the value of information for this area is quite high and worth funding, regardless of what the research project actually finds.
3. Unknown consequences of social movements and locking in negative perceptions of a movement
 - a. Another consideration is that it’s hard to predict the impact that a protest or SMO activity will have on the general public’s perception of the movement with perfect certainty before doing it. Therefore there exists a risk that a single negative action or campaign could significantly damage the long-term reputation of a movement. One safeguard could be distancing SMOs from the Effective Altruism movement to protect against reputational damage. However, as per the first concern, I believe there is a greater chance of reputational risk to a cause area by a non-EA aligned SMO who might lock in negative views of a certain movement relative to

an EA incubated SMO. An example here might be the 'militant vegans' persona of the Animal Welfare movement.

4. SMOs are not the most cost-effective at the margin
 - a. Whilst I believe this is true for existing SMOs who have large groups of supporters to fundraise from, based on the existing analysis above, I don't believe this is true for SMOs that are in the process of incubation or launching. As I have shown above, SMOs are essential in social change and can be extremely cost-effective relative to other interventions. However, I don't believe we have enough evidence to confidently make the claim either way so I believe further research is required.
5. Cluelessness
 - a. Similar to the unknown effects of social movements expressed in point 3, [cluelessness](#) means we can't accurately predict the long-term impacts of our actions. This is an important consideration for any social movement, as it's not clear whether activities today might actually damage the long term potential of humanity. Some ways we could mitigate this concern could be by doing things that seem robustly good from a variety of angles:
 - i. Focus on building positive values, such as evidence, reason and altruism, into social movements.
 - ii. Focusing on building the capacity of a movement, by creating infrastructure, connections and knowledge. This in turn could lead to the movement making better judgments when faced with campaign opportunities, as well as having greater ability to act when clear opportunities to do good arise.
 - iii. Only organising activities and events that will increase public support positively, potentially taking a more risk averse view on protests. This might be quite hard to predict beforehand and in some way, might be challenging to carry out.

6. What next? Further research in this area

As stated above, there are strong arguments why SMOs can be highly cost-effective and impactful interventions. Based on the success of XR and prior protest organisations, this makes me believe there will be similar opportunities in the current day or future to similarly make large progress on public opinion and policy change for various causes. I believe that a 2-person year research project would find cause areas where social movements would be more cost-effective than existing EA-funded interventions in that space.

6.1) Why could this research be extremely valuable?

- **It's potentially very impactful** - Just like direct charity work or policy advocacy are levers for social change, nonviolent protests are another. With a more robust understanding of which tool is suitable for various circumstances, we stand the best possible chance of

maximising our positive altruistic impact. I believe this is vital strategic and neglected research that could help inform resource allocation across a variety of EA cause areas. Better information would allow EA donors and grantmakers to decide whether we should increase, maintain or reduce funding towards these organisations. In the best case, we discover that these organisations are extremely cost-effective and funnel funds towards them, which can in turn counterfactually reduce animal suffering or existential risk, to give two examples. In the alternate case, we discover that these movements are not cost-effective but at least we are now aware of this fact and can now more confidently allocate our resources to other interventions. We could also use this information to persuade both EA and non-EA donors who are currently funding these interventions to direct their money elsewhere for more impact. This research could also help inform career choices and future research efforts. In other words, the value of information is high.

- **It's neglected** - This research is extremely neglected as there is only one other organisation, Giving Green, that I'm aware of that is trying to evaluate the effectiveness of these protest groups. In addition, their scope is limited to climate change organisations yet nonviolent protest groups can be applied to a range of other cause areas, such as animal welfare, existential risk, global aid advocacy, etc. I would estimate there are tens of millions of dollars per year spent on these advocacy efforts in farmed animal welfare and climate change alone, meaning there is huge room for potential improvement in these funding efforts.
- **EA community leaders think exploratory research is the most promising meta-EA idea:** [Interviews with 40 EA community leaders](#) showed that one of the most important areas the EA community should be focusing on is an exploration of new ideas and causes. In addition, there is a widespread feeling in the [broader EA community](#) that this work should be a priority.
- **There is a strong track record** of important cause prioritisation research within the EA movement. Cause prioritisation research conducted by EAs has been extremely successful in altering the trajectory of the EA movement, as seen by the much greater resource allocation towards causes like longtermism and animal welfare than existed 10+ years ago.

6.2) What would this research look like?

- The research should first build upon this work to evaluate the cost-effectiveness of nonviolent protest groups more generally in achieving their aims and creating positive outcomes for the world.
- This question is best examined from a variety of angles, using a [cluster-thinking approach](#). The methods could include in-depth case studies into social movements with cost-effectiveness analyses, literature reviews, a statistical analysis of 50-100 groups to determine a base rate for success and effect sizes, interviews with policymakers to determine attribution, testing theory of change assumptions, etc.
- Specifically, the theory of change assumption testing might involve:

- How confident are we that nonviolent protests increase public support for an issue, as well as increasing salience of it?
- To what extent does marginal public pressure/support have an impact on politicians making commitments or changing their stance on issues?
- If the initial results are promising, the next stage would be to identify in which cause areas they could be the most impactful, as well as characteristics of what makes a suitable cause area for a social movement to have an impact.
- Other promising research could be related to identifying the most promising social movement organisations:
 - Conducting a comparison of historical social movements (similar to [Built to Last](#) or [Prisms of Power](#)) comparing successful vs unsuccessful SMOs to try to isolate key factors of success.
 - What are predictable identifiers of social movement success?
 - What is the base rate for the success of SMOs?
 - What degree of success is related to organizational initial conditions (people, money, initial ideology and demands) versus a fertile environment?

Further down the line, I believe that a social movement incubator that incubates SMOs with EA principles could be an impactful meta-intervention to reduce the risk of non-aligned SMOs doing a sub-optimal job or even locking in negative effects. I foresee this being similar to Charity Entrepreneurship in structure and strategy but solely focused on SMOs. A less capital-intensive intervention would be trialling this project with one or two specific early-stage SMOs, to measure the impact of this intervention on a small scale. I'm quite uncertain about this however and it would be contingent on the results of my initial research.

6.3) Current plans for this research project

Thanks to the EA Infrastructure Fund, I've been granted some funding to expand on this work for five months starting in January. I'll be hiring a second researcher so if you would be interested in such a role, feel free to email me at james.ozden@hotmail.com. I'll be starting a formal hiring round shortly so I can share this when it is available.

In terms of funding, I currently have five months of funding confirmed, however, I think this project will require close to 12 months of work. This is especially true to gather experimental data, e.g. via opinion polling and observational studies, to test some of my hypotheses. Therefore I'm currently looking for funding to help finish the project so if anyone is interested in supporting this work or knows of funders who might be interested, please email me at james.ozden@hotmail.com.

7. Conclusion

Nonviolent protest has been significant drivers of positive social change throughout history. Despite this, I believe that EAs have overlooked nonviolent protests and SMOs as promising interventions for certain cause areas. As argued above, there is strong evidence that SMOs can be highly-cost effective in driving policy change and in achieving their aims, at least in some

cases. A two-person year research project could better evaluate this question and provide great information value to the EA community, to inform future resource allocation across a variety of cause areas. In addition, I believe there is a reasonable (30%+) possibility of uncovering cause areas where nonviolent protest-focused SMOs could be more cost-effective than existing interventions.

Regardless, I would like to start a discussion on the role of nonviolent protest within positive social change and the reasons why EAs have largely avoided them. Similar to [the case for economic growth and against randomista development](#) by Hauke Hillebrandt and John Halstead, I believe this is a similar style of intervention where relaxed risk constraints could lead to higher impact for donors, favouring a more hits-based approach.

References

- [Budgen, D \(2020\)](#) - Does Climate Protest Work? Partisanship, Protest, and Sentiment Pools
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- Burstein, P., (2003), [The Impact of Public Opinion on Public Policy: A Review and an Agenda](#)
- Shapiro, R., (2011), [Public Opinion and American Democracy](#)

Appendix/To be added:

An Ecology of Change

To include: Maybe picture in Appendix:

- Ecology of change -[SSRI - Open Phil Ecology](#)
- Talk about ecology of change vs most cost effective donation as EA grows e.g. what ACE is doing?

Maybe:

Theories of change of people power vs monolithic in EA

1. Impact of BLM

The #BlackLivesMatter movement has also provoked a groundswell of policy changes in states and localities throughout the country. According to [Campaign Zero](#), a platform that tracks legislative progress on policing and racial justice, 127 pieces of relevant legislation were passed at those levels in just the first two years of the movement. Among these:

- At least 102 laws were enacted between 2015 and 2018 to address police violence.
- New legislation has been enacted in 40 states since 2014.
- 10 states (CA, CO, CT, IL, LA, MD, OR, UT, TX, WA) have enacted legislation addressing three or more Campaign Zero policy categories.
- At least 46 bills are currently being considered in 19 states to address police violence.

Although #BlackLivesMatter has been criticized for not securing major federal reforms, it has shifted the landscape around police violence enough to produce significant early victories locally. The movement's ultimate impact has yet to be determined. [See more here.](#)

Sources:

Inspo: [ESG investing](#) by Sanjay
[Growth and case against randomista development](#)
[How cost-effectiveness can be misleading](#)

Resources:

- [Ayni Report](#) by Open Phil
- [Sentience institute anti-slavery](#)
- [SI anti-abortion](#)
- [SSRI - Open Phil Ecology](#)
- [Pictures](#)
- [AR theories of change - ecology](#)
- Owen CB on [Movement Growth](#)
- [Sentience Institute Research](#)
- [Carl Shuman - systemic change and EA](#)

Impact of XR variables:

- Number of people involved in the movement
- Size of mailing list
- Number of local groups (how many cities and countries)
- How many attending protests/arrested
- Amount of press coverage
- Policy makers influenced?
- Shift national government spending and priorities
- Local councils influenced
- Corporations influenced

- Policies brought forward
- Raise awareness to the issue (% of people who care)
- People interesting in tackling climate change
- People working in climate Change
- Carbon abated