Collective Identity and a Warming Planet:

Exploring the Motivations Behind Climate Change Activism

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Abstract

This study investigated the relevant group identities and predictors of normative and non-normative forms of climate change activism and the role of inter-movement spillover of the Black Lives Matter (BLM) movement. Data was collected from climate change activists' and non-activists' responses to a questionnaire. Participants identified humans in general as an important group impacted by climate change, supporting one of the hypotheses. Further, different predictors motivated different kinds of collective action. Self identification as an activist, climate change beliefs and moral convictions, identification with impacted groups, efficacy and negative affect predicted engagement in low cost normative collective action. Self identification as an activist, obligation and efficacy predicted engagement in moderate cost normative collective action. Self identity as an activist, identification with activist groups and negative affect predicted low cost non-normative forms of collective action. Further, identification with opposition groups, negative affect and familiarity with BLM predicted engagement in high cost non-normative action. This study provides a critique to theories that focus on identification with specific ingroups and collective action, and provides evidence of inter-movement spillover effect between BLM and climate change activism.

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The week of September 20th, 2019 marked the beginning of a Global Climate Strike, a world-wide protest that spanned seven continents and included an estimated 4 million participants (Barclay & Resnik, 2019). Partly inspired by teenage climate activist Greta Thunberg, thousands of students walked out of schools to march in the 800 planned protests in the U.S alone. Protesters demanded governments and businesses to commit to net-zero carbon emissions by 2030 (Neuman & Chappell, 2019).

Many people are concerned about climate change. One poll found that 44% of Americans are highly worried about global warming while an additional 21% worry a fair amount (Pew Research Center, 2019). And while some may even take actions to reduce climate damage in their individual lifestyles, a smaller portion of the people who are concerned about climate change take the step – both figuratively and literally – to become activists. Only 17% of Americans considered themselves active participants in the environmental movement, while 45% are sympathetic toward the movement but not active participants (Gallup, 2020). Those who do take action will join with others for public demonstrations or to advocate collectively for changes at the local or national levels. Additionally, these activists can choose different pathways to collective action. Some may choose to draw attention to an issue by peacefully protesting, while others may choose to express their frustrations by rioting or vandalizing property. All of these activists are participating in collective action. The gap between the numbers of those who care about climate change and those who take action raises the question: who are the people who move from the personal to the public, from the individual to the collective? What motivates climate change activism?

Climate change is a particularly interesting context in which to explore motivators of activism – often referred to as collective action – more generally. Climate change is a large-scale and far-reaching issue that transcends borders. It is an issue that is global and will directly and indirectly impact a large portion of the global population. A global temperature increase of 2°C will expose 2.7 billion people (29% of the global population) to moderate to high risk of having their water, energy, food, and environment impacted as a result of climate change, and this number doubles (50% of the global population) if temperatures are to reach 3°C (International Institute for Applied Systems Analysis, 2018). Climate change is also an increasingly relevant and pressing issue that has Americans increasingly concerned. A recent study by the Pew Research Center (2020), found that concern over climate change has increased from 44% of people in 2009 to 60% in 2020. Growing concern and rising temperatures may lead activists to consider different pathways of collective action.

Understanding the motivators that drive climate change activism can offer insights into collective action. By definition, collective action refers to actions taken by a group to advance the condition of their group, and thus improve their own individual social standing within society (Wright et al., 1990). Climate change activism may offer an interesting lens through which to investigate collection action in general, because there is no one specific group that will be impacted by climate change. Instead, the global population will feel the impact of climate change. This departs from collective action research that usually focuses on identifiable groups, because within the context of climate change, there may be no defined group boundaries for individuals to identify with. Climate change activism offers an interesting context in looking at how group identities do and do not play a role in inspiring climate change activism.

Additionally, it is important to investigate how other collective action movements may have influenced the climate activist movement.The effects of this intermovement spillover are not well documented in recent years, and deserve more attention, especially in light of the Black Lives Matter (BLM) protests of 2020. While the BLM movement itself is peaceful, media coverage is more likely to emphasize the rare incidents of disruption and looting of the protests rather than the movement's legitimate demands for equality (Kilgo, 2020). The media's selective coverage of these non-normative forms of collective activism may influence the climate activism movement. This would not be the first example of social movement spillover in the climate movement. In the 2009 climate protests in Copenhagen, increased protester disobedience and aggression were found to be linked to the spillover effect (Hadden, 2014). Has the BLM movement contributed to a similar spillover effect in the current climate movement? I predict that the events of the 2020 BLM movement will affect support for non-normative action among climate activists.

The goal of this study is to explore the factors that may contribute to participation in climate activism, with a particular focus on group identities that motivate people to engage in climate change protest. I will also explore the roles of normative and non-normative collective action in relation to climate activism. Normative collective action is collective action that is designed to change the position of a group within an existing social system and follow the rules and norms of this social system (Wright, 2009). Examples of normative actions include peaceful protesting, signing petitions, or writing letters to those in political power. In contrast, non-normative action is, by definition, disruptive because it not only challenges inequalities between groups, but it also challenges the rules and norms set in place by a social system that keeps those inequalities in place (Wright, 2009). Examples of non-normative action can include vandalism,

looting, rioting, and destruction of property. I predict that an important group identity will be that of our shared humanity, and an identification with our shared fate in the face of a warming planet. Additionally, I predict that the motivating factors identified in previous literature- specifically identity, efficacy, emotion, and obligation- will be significant predictors of normative and non-normative forms of collective action. Further, I predict there will be significant support for non-normative forms of collective action in regard to climate change.

A Brief History of Climate Change Activism

Climate change activism has been widely recognized – under various names and movements – since 1970 when the first "Earth Day" was organized, inspired by student-led anti-war protests at the time. The speakers at the first Earth Day felt so impassioned while speaking, that they reported feeling a stronger commitment to the very issues they were speaking about (Rome, 2010). The annual "Earth Day" events and "Green Peace" movements of the 1970s and 1980s produced significant public displays of concerns by millions of people, inspiring the formation of lobbying groups, recycling centers, and environmental education programs. By the early 2000s, large-scale demonstrations and events calling for action for climate change became regular events. In 2005, the first Global Day of Action took place during the UN climate talks, and has since become an annual event (Kestin, Lock, & Gralki, 2020). In 2011, student groups began demanding universities divest of fossil fuels. By 2014, 837 universities and institutions had divested of fossil fuels around the world (Vaughan, 2014). In 2018, a London-based group of activists formed Extinction Rebellion. The group has since become known for creative and non-normative forms of activism such as activists super-glued to the gates of Buckingham Palace and destroying private property- in one case, a lawn owned by Trinity College (BBC, 2020). This group now has roots in 68 countries around the world (Kestin, Lock, & Gralki, 2020).

Additionally, climate activism is not independent of other social movements. In fact, there is a spillover effect, wherein different social movements influence one another by increasing the conversations surrounding an issue and injustice, and prompting growth for collective action (Hadden, 2014). For example, the civil rights movement of the 20th century provided a master frame adopted by the environmental justice movements of the time (Čapek, 1993). That is, the master framework of validating the fight for rights by disadvantaged groups was adopted by environmentalist groups to frame the environmental justice movement. It is with this in mind that we may see an overlap between the climate change activism movement and other modern social justice groups like Black Lives Matter (BLM).

In recent years, science has provided a better understanding of climate issues. The IPCC special report of 2018 showed the grave reality faced if global emissions do not reach net zero by 2030 (Intergovernmental Panel on Climate Change, 2018). And it seems individuals are becoming more concerned with policy changes. The majority of U.S adults (67%) agree that the government is doing too little in efforts to reduce the effects of climate change. However, only 25% live in an environmentally conscious way all of the time (Funk & Hefferon, 2019). So, while most people are concerned about climate change, this does not mean their behaviors will reflect their beliefs about climate change. Nevertheless, in 2019, 44% of Americans expressed that they worry a great deal about climate change, compared to 32% of Americans in 2001 (Gallup, 2019). Thus, a relatively small group of activists can have an important role in promoting public discourse and political change in terms of climate issues. Although climate change activism and concern has been well documented over the years, I am interested in exploring the identities of the modern-day climate change protesters, and other factors that may

contribute to participation in climate activism. I will now turn to look at some of the motivations of collective action, and their possible role in climate activism.

Motivators of Collective Action

Collective action is typically defined as action(s) taken to directly improve the conditions on the behalf of a group, usually one's own disadvantaged group, although not necessarily on the behalf of the individual's self (Wright, Taylor, & Moghaddam, 1990). A further distinction can be made between non-normative and normative forms of collective action. Normative collective action conforms to existing societal norms and structures while non-normative action is outside of the confines of existing societal norms and structures (Wright, Taylor, & Moghaddam, 1990). From these relatively straight-forward definitions flows a literature on the factors that may contribute to motivation and participation in collective action. Van Zomeren (2013) reviews work from across collective action literature and identifies four core motivating factors that contribute to collective action as identity, emotion, efficacy, and moral conviction.

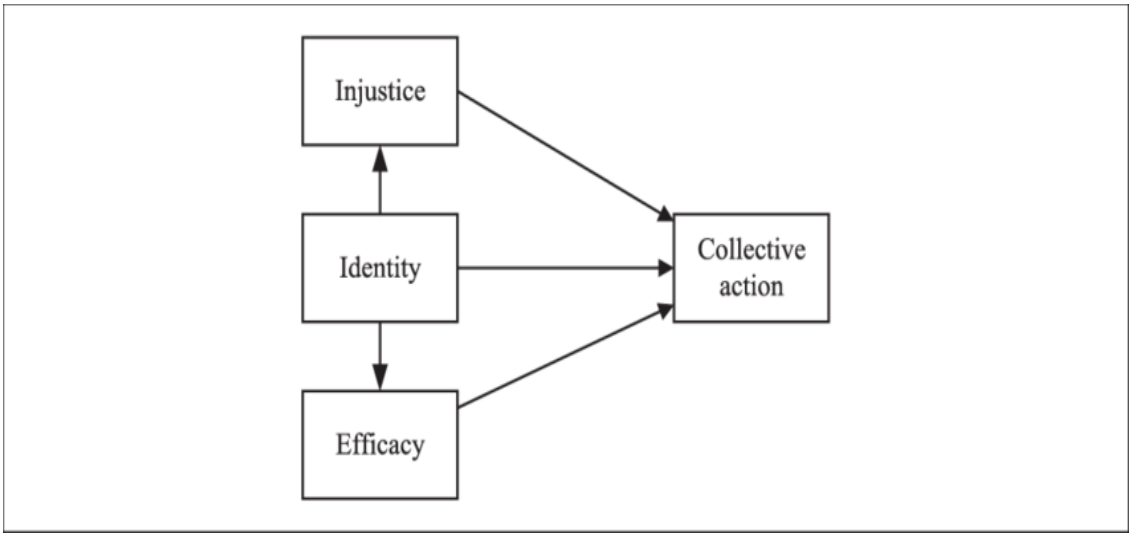

Figure 1. The Social Identity Model of Collective Action (SIMCA) from Van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: a quantitative research synthesis of three socio-psychological perspectives.

Identity

Identity is a particularly important motivator of collective action, and as shown in *Figure 1*, it is the most central motivator toward collective action. Individuals define their own identities in relation to social groups that protect and uplift their own self-identities. This involves the categorization of "in-groups" and "outgroups". Those that are categorized into an in-group share important features or parts of identity, specifically identities that are in the minority or disadvantaged. These shared identities in turn form a collective group identity. Alternatively, those that do not share the salient identifications are categorized as the out-group. These "ingroup" and "outgroup" categorizations can lead to ingroup bias, the tendency to favor members of one's own group over members of other groups (Everett et al., 2015). In a classic study that demonstrated just how powerful even trivial identifications can be, individuals were randomly assigned to Group *X* or Group *Y*, which lead to favoritism of the in-group and discrimination against the out-group (Tajfel and Turner, 1979). This is just one example, as in-

groups and out-groups can be defined by different types of identity, such as race, political affiliation, or favorite type of sandwich.

Group identity is also an important determinant of how individuals cope with collective disadvantage. Specifically, when a disadvantaged or low-status group perceives the group identity to be unstable or illegitimate, they are more likely to identify with their group and engage in collective action to change the status or circumstances of their group (van Zomeren et al., 2008). An example of this would be if a woman faced gender discrimination and found it to be unjust, it would be more likely she would join a feminist group to demand gender equality and dismantle the illegitimate patriarchy. Identity, as well as emotion (specifically anger), predicted low-cost forms of collective action, such as signing a petition. As discussed below, efficacy was the factor that predicted high-cost collective action, for example donating a large amount of money or facing arrest, both motivators that will be explored in later sections (Morgan & Chan, 2016).

Identification allows for individuals to feel, think, and behave as psychological group members. Furthermore, when it comes to collection action, identity is an indirect and direct predictor of collective action, according to the Social Identity Model of Collective Action (SIMCA) (van Zomeren et al., 2008). That is, when group identity is strong and relevant, it leads to a group based response to injustice, such as group-based emotions like anger, which in turn leads to collective action. This is shown in *Figure 1*, as identity is a direct motivator of collective action, but also facilitates the motivators of efficacy and injustice, both of which lead to collective action. As discussed below, identity contributes to group anger and efficacy, which leads to collective action. In other words, the individual who identifies highly with their group will attend more to group emotions and perceived efficacy and will in turn prioritize group goals.

Alternatively, for an individual who has low group identification will not prioritize group goals and will instead be more pragmatic in pursuing collective goals that serve their own individual goals.

Politicized identity is also important in this context. Individuals show politicized identity when they consciously engage in a power struggle on behalf of a group, while being mindful of the broader societal context in which they are acting in (Simon & Klanderman, 2001). This is relevant to climate change because activists may be conscious of the broader societal context of the fight against climate change, that is, they are fighting against the industries that contribute to our warming planet for future generations. Politicized identification is also important in this context because identification with a social movement group is more predictive of collective action than identification with a disadvantaged group, while identification with a social movement group is a politicized identity (Stürmer & Simon, 2004). This means in the context of climate activism, identity with a disadvantaged group is not necessarily a motivating factor of collective action, but an identity with the social movement of climate activism may be more salient to the individual and more predictive of participation in climate activism.

Literature also provides insight to the relationship between identity and climate activism. Greater involvement in environmental groups and a stronger sense of the self as an environmental activist were associated with stronger intentions to engage in environmental activism. Self-identity, which can be defined as an individual's concept of self in relation to and differentiation from others, was a stronger predictor of intentions for collective action in comparison to participants with comparatively low environmental group membership and engagement (Fielding, McDonald & Louis, 2008). For example, an individual that considers themselves an environmentalist will categorize “environmentalist” as their self-identity, and this

will be a motivating factor to participate in environmental collective action. When collective identity was explored within three environmental and climate activist groups, personal behaviors and identity varied among the groups (i.e more radical anarchist groups following vegan, eco-friendly practices). However, there was no substantive collective identity between environmental groups (Saunders, 2008). Additionally, according to a survey done on American opinions on climate change, identity was found to be the most common barrier to activism (i.e phrases such as "I am not an activist"), which highlights the importance of identity in social movements (Roser-Renouf, et al., 2014).

Based on the current research, we can see that a strong identification with a group increases intentions in activism, which may be related to how an individual self-identifies in the context of activism. However, there is no consensus on what the group identity of climate activists consists of. As mentioned above, collective identities are formed in relation to specific in-groups and out-groups. Within climate change activism, there appears to be no group boundaries that decide if an individual belongs to an in-group or an out-group. That is, there is no specific group within climate change activism that is disadvantaged in relation to another group. When there is no comparative outgroup, group identities may form around a common fate or positive interdependence (Fritsche et al, 2018). This is relevant because, as discussed above, the higher the global temperature increases, the more the global population will be impacted, meaning that climate change activism is not on the behalf of a singular group, but rather for all of humanity and our shared fate. If climate change is an issue that will ostensibly impact the global population in varying ways, how do climate activists create a collective identity?

I am interested in looking at what individual identities are meaningful to people, and what group identities, if any, are important among climate activists. Based on the prior research,

I predict an important group identity to be that of our shared humanity, and an identification with our shared fate in the face of a warming planet.

Emotion

Emotions, especially anger, predict collective action. When a group status is disadvantaged or unfair, the degree to which group identity is relevant influences group based emotions like anger (van Zomeren, Spears, & Leach, 2008). In other words, when individuals highly identify with a group, it is more likely the group will collectively feel anger towards their disadvantaged group status. Collective action research focuses on the emotion of anger, rather than fear or other emotions. Anger is a particularly important emotion that motivates collective action because it is triggered by perceived injustice, obstructions of a goal, or violations of the norm. In this way, anger motivates the removal of obstacles that are in the way of a goal or are facilitating injustice (Matsumoto, Frank & Hwang, 2016). These findings are especially relevant in relation to climate activism, due to the powerlessness individuals can feel in the face of an issue as large and widespread as climate change. However, other emotions such as fear are also relevant in an issue like climate change. In this context, the collective disadvantage could be the threat and consequences of climate change, leading to feelings of apprehension, anxiety, sorrow, and loss (Reser, Bradley, & Ellul, 2011). Building on the theory that emotion motivates collective action, among climate change activists, the emotion of fear motivated action because of the dire implications of climate change. Fear is in turn mediated by hope, and because collective action generates hope, collective action in turn manages fear (Kleres & Wettergren, 2017). The changing climate can evoke an array of emotions, because climate change poses a threat to future security. Climate change anxiety was found to be common in young adults, but this anxiety did not promote participation in collective action (Clayton & Karazsia, 2020).

Climate change messages that appeal to fear and humor were also found to be effective in promoting intentions to engage in climate activism, but only fear was found to promote perceived risk of climate change effects (Skurka et al., 2018). Thus, the group-based emotions associated with climate change are not only mediated by group-identity but may also be relevant when looking at non-normative forms of collective action, which I will explore in later sections.

Efficacy

Perceived efficacy leads to greater collective action. In other words, a person's belief that their involvement in a group, as well as the group's collective action will yield change will motivate them to participate in collective action (Mummendey et al., 1999). In this context, efficacy is the perceived likelihood of social change due to collective action. Specifically, it is the sense that a unified effort has enough power to change the circumstances and disadvantages of a group. In other words, the stronger the sense of a group's efficacy, the more likely the group will participate in collective action. High perceptions of group efficacy led to higher motivation to complete the group's goals, stronger group standing in the face of difficulties, and greater outcomes for the group (Bandura, 2000). When the relevance of group identity was low, the beliefs of group efficacy more strongly predicted collective action (van Zomeren, Spears, & Leach, 2008). In exploring the relationship between efficacy in climate change activism, self-efficacy predicted private pro-environmental behavior, and participatory efficacy predicted activist pro-environmental behavior (Hamann & Reese, 2020). Additionally, the perceptions of heightened risk associated with climate change have increased in recent years, but collective efficacy and the perception that individual actions can make a difference are low (Roser-Renouf, et al., 2014).

Moral Conviction

Greater moral convictions lead to greater collective action. Moral convictions are strong, absolute beliefs that something is right or wrong. Beliefs that are moral are characterized by factors such as universalism, emotion, and perceptions of factuality (Skitka, Bauman & Sargis, 2005). Moral convictions are perceived as universal truths, which can evoke feelings such as anger when presented with something immoral, and may also feel compelled and justified in taking a stand when met with opposition (Skitka et al., 2005). Moral convictions also vary between individuals, that is, individuals differ in whether they recognize the moral relevance of a given issue or dilemma (Bauman & Skitka, 2009). This means an individual will make different judgements, behaviors, and choices depending on whether they view a dilemma as a moral issue.

The stronger the moral conviction that an individual holds for an issue or a group (especially their own group), the more likely they are to engage in collective action. Moral obligations were found to be different from moral convictions, and a strong predictor of participation in collective action (Sabucedo et al., 2018). In other words, when a strong moral conviction is violated, there will be a greater response to express outrage or protest (Lodewijkx, Kersten, & van Zomeren, 2008). Students presented with a university decision that they morally disagreed with were prepared to protest, withhold tuition funds, and cause trouble for the university (Bauman, 2006). In the context of collective action, factors that influence the link between morality and collective action include obligation, anticipated emotions such as pride, identity, and efficacy. This highlights the intersection of the factors that motivate collective action and morality (Morgan & Skitka, 2011). From this, I predict that climate change activists may feel strong moral conviction because climate change is a multifaceted issue that covers a wide range of injustices. This may also be connected to findings that moral convictions serve to justify non-normative collective action (Kraft, 2015).

Normative and Non-Normative Collective Action

The whirlwind events of 2020 have shined a spotlight on normative and non-normative collective action. One such relevant example of collective action occurred between May 26, 2020 and August 22, 2020, during which a recorded 7,750 demonstrations took place in 2,240 locations in all 50 U.S states, affiliated with the still active Black Lives Matter (BLM) movement (Kishi & Jones, 2020). These demonstrations were prompted by the police murder of George Floyd, and the subsequent surge of protests called attention to racially motivated police killings and structural, systemic racism that allows for such injustices to occur. The BLM movement has overwhelmingly included examples of normative collective action –93% of the recorded demonstrations associated with BLM have been peaceful (Kishi & Jones, 2020). The remaining 7% of demonstrations are examples of non-normative collective action, such as looting, vandalism, and rioting that have been associated with protestors. However, the media was more likely to show coverage of the small number of non-normative forms of collective action rather than the peaceful protests (Kilgo, 2020). Greta Thunberg's own activism also had non-normative associations. A month before the Global Climate Strike, an opinion piece called her "radical approach" to climate activism as "at odds with democracy" (Caldwell, 2019). Although the Global Climate Strike did not include non-normative demonstrations, the events of 2020 may have changed the way the public perceives non-normative action. In fact, different social justice movements can "spill-over" into other movements, and this has been well documented even at a transnational level with the climate change movement. An assessment of international climate movements found other social movements influenced the climate movement's contention and growth, but did not increase radicalization (Hadden, 2014). However, these results are reflective of climate groups' stances against non-normative action, but do not necessarily reflect public

support for non-normative forms of protest. Therefore, I predict there will be a spillover effect with the events of 2020- specifically the BLM protests- and this will change individuals perceive non-normative collective action. I predict that we will see support for non-normative collective action in the context of climate change activism.

Predictors of Non-Normative Action

Perhaps unsurprisingly, there is an intersection of the motivators of collective action and the motivators non-normative action. Non-normative action also has a relationship to the motivating factors of identity, emotion, and efficacy. However, differences between these motivating factors leads to different pathways to collective action. Specifically, low efficacy and contempt (an emotion that is distinctly different from anger), were significantly related to non-normative actions (Tausch et al., 2011). In contrast, perceptions of high efficacy and group-based anger are predictors of normative action. The difference may lie in perceptions of an issue or system. If there has been very little progress in policy or systematic change despite public protest, and there is much contempt for the system that is blocking the way to change or justice (such as an issue like climate change), an individual or group may choose to participate in non-normative action with a "nothing to lose" mentality. Additionally, those who identify less with their group were more supportive and willing to take part in radical action, in comparison to those that highly identified with their group (Shuman et al., 2016). Those who highly identify with a group will attend to the group goals and actions, while those that do not identify with the group may not share the same goals or values and therefore will choose an alternative form of collective action. In regards to the motivating factor of emotions, it may be a combination of anger, contempt, and disgust that lead to aggression and violence between groups (Matsumoto, Frank & Hwang, 2016). Contempt is a unique emotion because it is related to status and moral

and ethical superiority. Disgust is triggered by violations of sanctity and purity. Both contempt and disgust may contribute to different pathways that lead to non-normative action, because they are triggered by violations of morals and sanctity, which is different from anger.

In a broader context of societal corruption, normative collective actions convey the illegitimacy of an issue, and thus increases support for non-normative forms of collective action (Thomas & Louis, 2014). For example, a normative action such as a peaceful protest will call attention to an injustice, which then increases support for a non-normative action, such as trespassing, in order to bring about change. We can view the peaceful protests of the 2019 Global Climate Strikes as they conveyed the illegitimacy of government disregard of climate change to be a priming event wherein non-normative action will be more supported in the face of continued government inaction. The more an aggressive action is perceived to be efficacious, the more support and willingness to engage in that action, with less regard for comparatively peaceful actions. In other words, if a non-normative action is likely to achieve a goal, the non-normative action is more supported while alternative normative actions are ignored. The authors concluded that people can consider normative and non-normative actions as complementary strategies to be used alongside one another (Saab et al., 2016). Prevention oriented individuals (those who are concerned with safety and responsibilities), supported both benevolent and hostile forms of action when they also held strong moral convictions of the fair treatment of their group. Additionally, prevention-oriented individuals with strong moral convictions overrides the moral dilemmas of hostile actions (Zaal et al., 2011). Climate activists can be viewed as prevention orientated individuals because the threat of a warming planet could be perceived as both the responsibility of humanity and a safety concern.

Thus, climate activists may support both benevolent and hostile forms of action because the threat of climate change can override conflicting morals concerning non-normative forms of action. In regards to the motivators of collective action, from previous literature, we can see that those who are low identifiers with their group, those that have low perceived efficacy, and those that have high feelings of contempt are more likely to support and partake in non-normative collective action. I predict not only that we will see these factors in individuals that are willing to participate in non-normative action, but we will also see increased support for non-normative action overall among climate activists.

The Current Research

My thesis is focused on the group identities that are relevant to people when they consider climate change activism the predictors of normative and non-normative climate change activism, and the role of the BLM movement in shaping contemporary climate change activism. Climate change is an issue that does not provide explicit in-group and out-group identifications. With the absence of specific ingroups and clear outgroups, it is unclear how climate activists categorize themselves. However, group identities are an important way for individuals to connect to climate change, because this is not an issue that can be solved on an individual level. Rather, it will take collective, group effort and action to bring about significant change to save our planet. It is therefore important to investigate individuals' salient group identities. I predict that group identities will stem from connections to humanity and obligations to preserve the earth for future generations.

Additionally, I predict that the factors that predict both normative and non-normative action will be congruent with previous literature. Specifically, (a) strong identification with an impacted group, high perceived efficacy, high negative affect, and high obligations will predict

normative collective action, and (b) strong negative affect, high moral conviction, low efficacy, and weak group identity will predict non-normative collective action. Importantly, it is unknown how the events of 2020 changed the way we think about collective action. It is clear that social movements influence one another through the spillover effect, and the protests that took place within the context of the BLM movement ignited intense discussion over the role of normative and non-normative forms of collective action. With high concern over the changing climate, with low feelings of efficacy that the planet can achieve global net carbon emissions will meet zero by 2030, and contempt for governments that are slow in creating meaningful policy, this may increase support for radical, non-normative forms of protest within the climate change movement. I predict that attention to and familiarity with the BLM protests of 2020 will there predict significant willingness to engage in non-normative forms of collective action.

Methods

Participants

I recruited 230 participants through Amazon's Mechanical Turk (mTurk), an online survey service which provides respondents with compensation for each survey they answer. Participants were compensated $1 for completing the survey. An additional 26 members of the climate change activism group Extinction Rebellion were recruited through email correspondence. Of the 220 participants that completed the survey, 33 participants failed attention checks and were therefore removed from subsequent analyses. Furthermore, 77 participants provided nonsensical answers to open-ended questions (e.g., "winter", "AT&T" and "GOOD") and were also removed from subsequent analysis. Thus, 110 participants were retained for final analysis.

The retained sample ranged in age from 21 to 73 years (*M*= 39.23, *SD*= 11.88), and included 65 (59.1%) males, 43 (39.1%) females, and 1 (.9%) participant who identified as non-binary. Additionally, 50 (45%) identified as climate change activists and 60 (55%) identified as non-activists.

Procedures

Participants indicated whether or not they identified as a climate change activist. Based on that response, participants were assigned to one of two slightly different questionnaires. If the participant self-identified as a climate change activist, they completed the activist version of the questionnaire whereas those that self-identified as non-activists completed the non-activist version of the questionnaire. Both questionnaires asked questions about climate change beliefs, the groups impacted by climate change, the opponents of climate change, climate change activists, efficacy, affect, obligation, willingness to engage or support in different kinds of activism, and the Black Lives Matter (BLM) movement.

Measures of Predictors

Existing climate change activism. In order to determine whether participants were climate activists, participants responded to the item "Do you consider yourself a climate change activist – that is, do you actively participate in activities with the aim of preserving or protect the environment?" by selecting either *Yes, No* or *I don't know*. Additionally, participants responded to "Which of the following have you done in the last year with the aim of preserving and protecting the environment?" with the following eight items: "Sign a petition", "Attend an event on climate change", "Distribute flyers or information about climate change", "Volunteer to collect signatures for a petition" "Attend a protest/demonstration", "Organize a protest". "Join a climate activism group (at school, work, within the community)" "Spend time going door to door

in your neighborhood collecting donations" Participants responded either *Yes* or *No*. If participants responded *Yes* to any item, they were then redirected to complete the climate activist version of the questionnaire, while participants that responded *No* to all of the items were redirected to the non-activist version of the questionnaire.

Climate change beliefs. Items to assess climate change beliefs and attitudes[1] were adapted from Christensen and Knezek (2015) and Wei et al. (2014). Nine items measured beliefs about climate change. Participants responded to "To what extent do you agree with the following questions" with the following items: "I believe the earth's climate is changing", "I believe that the climate is changing due to human action", "I believe that climate change has already occurred", "Climate change has already occurred in my region", "Climate change will have a mostly positive impact" [reverse coded], "Climate change will have a mostly negative impact", "Global climate change will impact our environment in the next 10 years", "Global climate change will impact future generations", and "Climate change will have a direct impact on me". For each item, participants responded on a scale ranging from 1 to 7, where 1 is *Strongly disagree* and 7 is *Strongly agree*. Scores for all nine items were averaged to create a single score reflecting climate change beliefs (Cronbach's alpha = .88).

Moral conviction. Four items measured participants' levels of moral conviction when it came to climate change. Participants responded to the following items, To what extent is your position on climate change: "connected to your beliefs about fundamental right and wrong?", "a reflection of your core moral beliefs and convictions?"," a moral stance?", and "based on a moral principle?". For each item, participants responded on a scale ranging from 1 to 7, where 1 is

[1] Items also assessed the perceived importance of climate change but were not the focus of additional analyses.

Strongly disagree and 7 is *Strongly agree*. Scores for all three items were averaged to create a single score reflecting the moral conviction about climate change (Cronbach's alpha= .95).

Groups. The questionnaire asked numerous items to assess participants' identification with various groups adapted from Morgan (2011), as described immediately below.

Impacted groups. In an open-ended question, participants were asked "When you think about climate change, what groups come to mind? That is, what groups are most relevant or important to you when you think about the possible impact of climate change? (If NO groups are important, leave the following question blank.)".

Participants then answered eight questions about the strength of their identification with the impacted groups that they identified.[2] Specifically, participants responded to the questions, when you think of the groups you listed above: "How much do you care about those groups?", "How much do you identify with the group(s)?", "How similar are you to the group(s) in terms of general attitudes and beliefs?", "How much do you like the group(s)?", "How well do you fit in with the group(s)?", "How important is/are the group(s) to you?", "How strong are your ties to the group(s)?", and "How much do you see yourself as belonging to the group(s)?" For each item participants responded on a scale ranging from 1 to 5, where 1 is *Not at all* and 5 is *Very Much.* Scores for all eight items were averaged to create a single score reflecting the identification with impacted groups (Cronbach's alpha= .96).

Opposition groups. In an open-ended question, participants were asked "When thinking about climate change, what groups stand in the way of the climate change movement? In other words, what groups come to mind that impede, in some way, the fight against climate change? (If NO groups are impeding the fight against climate change, leave the question blank.)"

[2] One item assessed the extent to which participants believed impacted groups would be impacted by climate change but was excluded from further analysis.

Again, participants responded to eight items to assess their identification with groups that oppose climate change[3]. Specifically, participants responded to the stems "When you think of the groups you listed above…": "How much do you care about those groups?", "How much do you identify with the group(s)?", "How similar are you to the group(s) in terms of general attitudes and beliefs?", "How much do you like the group(s)?", "How well do you fit in with the group(s)?", "How important is/are the group(s) to you?", "How strong are your ties to the group(s)?", and "How much do you see yourself as belonging to the group(s)?" For each item participants responded on a scale ranging from 1 to 5, where 1 is *Not at all* and 5 is *Very Much.* Scores for all eight items were averaged to create a single score reflecting the identification with opposing groups (Cronbach's alpha= .97).

Activist groups. Seven items measured the participants' identification with climate change activist groups. Participants responded to the stems "When considering climate activist groups…": "How similar are you to climate activists in terms of general attitudes and beliefs?", "How much do you identify with climate activists as a group?", "How much do you like climate activists as a whole?", "How well do you fit in with climate activists as a group?", "How important are climate activists as a group to you?", "How strong are your ties to climate activists as a group?", and "How much do you see yourself as belonging to climate activists as a group?" For each item participants responded on a scale ranging from 1 to 5, where 1 is *Not at all* and 5 is *Very Much.* Scores for all seven items were averaged to create a single score reflecting identification with climate activist groups (Cronbach's alpha= .96).

Efficacy. Participants reported the perceived efficacy of climate change activism, that is, the degree to which they believed that activism could make a difference. Four items to assess

[3] One item assessed the extent to which participants believed opponent groups would be impacted by climate change, but this item was excluded from further analysis.

efficacy were adapted from Morgan (2011). Participants responded to the following items, "When considering future participation in climate activism…": "How much do you feel that your participation could send a message to others?", "How much do you feel that your participation could make a difference?", "How much do you feel that your participation could change the situation", and "How much do you feel that your participation could have an impact?" For each item participants responded on a scale ranging from 1 to 5, where 1 is *Not at all* and 5 is *Very Much.* Scores for all four items were averaged to create a single score reflecting the perceived efficacy of climate change activism (Cronbach's alpha= .95).

Affect. Items to assess positive and negative affect were adapted from Morgan (2011). Ten items measured positive affect within the context of climate change activism participation. Participants responded to the stem "How much would you feel each of the following emotions if you took action to further the fight against climate change…" by rating the degree to which they would feel each of the following positive emotions "Happy?", "Hope?", "Gratitude?", "Independence?", "Powerful?", "Pride?", "Responsible?", "Honor?", "Important?", and "Strong?". Furthermore, twelve items measured negative affect within the content of climate change activism. Participants rated the degree to which they would feel each of the following negative emotions: "Regret?", "Guilt?", "Contempt?", "Fear?", "Disappointment?", "Self-blame?", "Shame?", "Dissatisfaction with self?", "Pain?", "Hopelessness?", "Disgust?", and "Anger?". Participants responded on a scale ranging from 1 to 5, where 1 is *Not at all* and 5 is *Very Much.* Scores for all ten positive emotions were averaged to create a single score for positive affect (Cronbach's alpha= .95), and scores for all twelve items were averaged to create a single score for negative affect (Cronbach's alpha= .97).

Obligation. Items to assess obligation were adapted from Kerr (2014). Seven items assessed the degree to which participants felt obligated to participate in climate change activism. Participants responded to the stems "When considering climate change activism…": "How much do you feel an obligation to improve things for your present self?", " How much do you feel an obligation to improve things for your future self?", "How much do you feel an obligation to improve things for others?", "How much do you feel a moral obligation to participate in climate activism?", "How much do you feel a moral obligation to take a stand against those who oppose climate activism?", "How much do you feel that you must take a stand against those who oppose climate activism?", and "How much do you feel that you must take part in climate activism?" For each item participants responded on a scale ranging from 1 to 5, where 1 is *Not at all* and 5 is *Very Much.* Scores for all seven items were averaged to create a single score for obligation (Cronbach's alpha= .95).

Black Lives Matter familiarity. Three items measured the familiarity with the BLM movement[4]. Participants responded to the following items: "How familiar are you with the Black Lives Matter movement?", "How familiar are you with the Black Lives Matter movement in the last year?", and "How familiar are you with the coverage of the Black Lives Matter Protests on the news?" Participants responded on a scale ranging from 1 to 5, where 1 is *Extremely Familiar* and 5 is *Not Familiar at all.* All three items were averaged together to create a single score reflecting familiarity with BLM (Cronbach's alpha= .96).

Measures of Outcomes. Participants reported the degree to which they would be willing to engage in various normative collective action behaviors, adapted from Morgan and Chan

[4] Items that assessed the perceived importance and moral conviction about the BLM movement were also included in the questionnaire, but not the focus of further analysis.

(2016), as well as various non-normative collection action behaviors, adapted from Becker and Tausch (2015) and Tausch et al. (2011).

Low cost normative collective action. Five items measured willingness to engage in low cost normative activism. Participants responded to "How likely would you be to do each of the following actions to support your position on climate change…": "Sign a petition", "Contribute a small amount of money", "Vote for those who support climate change policy", "Discuss climate change with a family member", and "Discuss climate change with a stranger". For each item, participants responded on a scale from 1 to 7, where 1 is *Very Unlikely* and 7 is *Extremely Likely.* Scores for all five items were averaged to create a single score reflecting low cost normative activism (Cronbach's alpha = .91).

Moderate cost normative collective action. Eighteen items measured participation in moderate cost normative activism. Participants responded to "How likely would you be to do each of the following actions to support your position on climate change...": "Contribute a large amount of money", "Sleep in a public space during a demonstration", "Attend an event on climate change", "Distribute flyers or information about climate change", "Attend a protest", "Discuss climate change with a climate change denier", "Organize a protest", "Post on social media about climate change", "Contact your government representative", "Join a climate change activism group (at school or work)", "Join a climate change activism group", "Spend an hour going door-to-door in your neighborhood collecting donations", "Spend a weekend going door-to-door collecting donations", "Speak out in a group", "Speak out in a group of climate change deniers", "Post signs in front of your home", and "Put a bumper sticker on your car". For each item participants responded on a scale from 1 to 7, where 1 is *Very Unlikely* and 7 is *Extremely*

Likely. Scores for all eighteen items were averaged to create a single score reflecting moderate cost normative action (Cronbach's alpha= .98).

Low cost non-normative collective action. Six items measured participants' willingness to engage in low cost non-normative activism[5]. Participants responded to "Which of the following actions would you be willing to participate in within the context of climate change activism…": "Resisting arrest", "Leaving a message in spray paint on private property", "Destroying replaceable public property, such as a public lawn", "Blocking highways", "Blocking entrance into a public building", and "Disturbing a public event". For each item participants responded on a scale from 1 to 7, where 1 is *Very Unlikely* and 7 is *Extremely Likely.* Scores for all six items were averaged to create a single score reflecting willingness to engage in low cost non-normative activism (Cronbach's alpha = .97).

High cost non-normative collection action. Twelve items measured willingness to engage in high cost non-normative activism. Participants responded to the stems "Which of the following actions would you be willing to participate in within the context of climate change activism…": "Keying a car", "Pepper spraying", "Starting a fire in a public space", "Rioting", "Violent altercations", "Looting a chain a part of a large corporation", "Setting fire to a car", "Attack a police officer", "Throwing stones/bottles", "Arson attacks on public buildings", "Arson attacks on private property of responsible persons", and "Attack a responsible person". All twelve items were averaged together to create a single score reflecting engagement in high cost non-normative action (Cronbach's alpha= .99).

Results

[5] Items that assessed support for other people's engagement in non-normative collective action were also included in the questionnaire but were not the focus of further analysis.

This study explored the group identities that matter to people when considering climate change activism movement, the predictors of normative and non-normative climate change activism, and the role BLM may play within climate change activism. I predicted that participants would report that humanity and humans in general would be a relevant group identity when considering climate change. Furthermore, I predicted that, following the SIMCA model, high identification with impacted groups, high perceived efficacy, high affect, and high obligation would predict normative collective action, whereas low identification with impacted groups, low efficacy, high affect and high obligation would predict non-normative collective action. Additionally, I predicted that familiarity and attention to the BLM movement would predict non-normative collective action within climate activism. See Table 1 for descriptive statistics for all study variables, and Table 2 for correlations among all study variables.

Table 1
Descriptive Statistics of Study Variables

Descriptive Statistics					
	N	Minimum	Maximum	*M*	*SD*
Climate Change Beliefs	110	1.44	7.00	5.68	1.17
Climate Change Importance	109	1.00	5.00	3.59	1.14
Climate Change Moral Conviction	110	1.00	5.00	3.37	1.21
Identification with Impacted Groups	109	1.00	5.00	3.01	1.20
Identification with Opposition Groups	109	1.00	5.00	2.00	1.19
Activist Identification	108	1.00	5.00	2.85	1.15
Efficacy	109	1.00	5.00	2.94	1.24
Positive Affect	110	1.00	5.00	2.89	1.10
Negative Affect	110	1.00	5.00	1.75	1.04
Obligation	110	1.00	5.00	3.13	1.19
Low Cost Normative C.A.	109	1.00	7.00	4.83	1.70
Moderate Cost Normative C.A.	110	1.00	7.00	3.62	1.89
Low Cost Non-Normative C.A.	108	1.00	7.00	2.00	1.65
High Cost Non-Normative C.A.	109	1.00	7.00	1.73	1.44
BLM Familiarity	110	1.00	5.00	2.08	1.08

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Activist vs Non-Activist	1													
2. Climate Change Beliefs	.02	1												
3. Moral Convictions	.36**	.65**	1											
4. Impacted Group ID	.29**	.36**	.56**	1										
5. Opponent Group ID	.47**	-.27**	-.05	.21*	1									
6. Activist ID	.52**	.49**	.67**	.52**	.26**	1								
7. Efficacy	.58**	.31**	.67**	.54**	.32**	.69**	1							
8. Positive Affect	.49**	.29**	.66**	.51**	.30**	.62**	.81**	1						
9. Negative Affect	.43**	-.33**	-.01	.14	.48**	.16	.15	.09	1					
10. Obligation	.57**	.52**	.80**	.59**	.21*	.76**	.83**	.78**	.11	1				
11. Low Normative C.A.	.47**	.65**	.78**	.57**	.06	.71**	.70**	.63**	-.08	.78**	1			
12. Moderate Normative C.A.	.80**	.27**	.57**	.45**	.37**	.67**	.77**	.65**	.31**	.78**	.71**	1		
13.Low Cost Non-Normative C.A.	.54**	-.04	.20*	.17	.40**	.40**	.34**	.28**	.60**	.31**	.24*	.52**	1	
14.High Cost Non-Normative C.A.	.52**	-.22*	.06	.17	.56**	.26**	.29*	.27**	.66**	.21*	.09	.39**	.79**	1
15. BLM Familiarity	.25**	-.18	-.04	.012	.20*	.04	.03	.07	.27**	-.00	-.02	.08	.31**	.46**

Table 2 *Correlations Among Study Variables*

What Group Identities Matter? The Role of Group Identities

As discussed above, I asked both activists and non-activists about the groups they perceived as impacted by climate change, as well as the groups they perceived as being opposed to climate change activism. I transcribed participants' open-ended responses regarding impacted group and opposition groups. To analyze this qualitative data, I conducted open coding of responses. That is, I identified the theme that emerged in answers separately for participants who did and did not self-identify as activists.

When considering the groups that are impacted by climate change, seven themes emerged from the responses of non-activists, and six groups emerged from the responses of activists: (1) Humans in General, (2) The Youth and Future Generations, (3) Environmental Organizations, (4) The Poor and Impoverished, (5) Climate Refugees, (6) Animals, (7) Democrats/Liberals. As shown in Table 3, non-activists and activists identified similar groups, although activists did not identify Democrats/Liberals as a group specifically impacted by climate change. These responses show a wide selection of impacted and groups relevant to climate activism, and most participants included multiple groups in their responses.

Additionally, when considering the groups that are opposed to climate change activism, five themes emerged from the responses of non-activists, and four groups emerged from the responses of activists: (1) The Rich, (2) Climate Change Deniers, (3) Corporations, (4) Government, and (5) The Older Generation.

Table 3

Qualitative Analysis of Themes

	Non-Activists (N =60)	Activists (N=50)
	N that identified each theme (%)	*N that identified each theme (%)*
Groups Impacted by Climate Change		
Future Generations	10 (16)	6 (12)
Environmental Organization	11 (18)	10 (20)
Impoverished	11 (18)	5 (10)
Climate Refugees	8 (13)	4 (8)
Humans in General	7 (11)	4 (8)
Animals	3 (5)	3 (6)
Democrats/ Liberals	3 (5)	-
Groups Opposed to Climate Activism		
Rich People	5 (8)	4 (8)
Climate change Deniers	15 (25)	8 (16)
Corporations	20 (33)	9 (18)
Government	31 (51)	10 (20)
Older Generation	2 (3)	-

In addition to exploring which groups that participants perceived as impacted by climate change and opposed to climate change activism, I also tested participants' strength of identification with relevant groups (i.e., identification with nominated impacted groups, nominated opposition groups, and climate change activists). To explore non-activists' and activists' identification with the groups, I conducted a series of analyses of variance (ANOVAs). Analyses indicated that non-activist and activists identified differently with impacted groups, F (1, 107) = 10.30, p = .002. Specifically, activists identified more strongly (M= 3.41, SD= .94) with impacted groups than did non-activists (M= 2.70, SD=1.30). Additionally, analyses indicated that non-activists and activists identified differently with opposition groups, F (1, 107) = 30.03, p = .000. Surprisingly, activists identified more strongly (M= 2.61, SD= 1.22) with opposition groups than did non-activists (M= 1.49, SD= .89). Finally, analyses indicated that activists and non-activists identified differently with climate activists, F (1, 106) = 39.40, p = .000. Specifically, activists identified more strongly (M= 3.53, SD= .89) with activists than non-activists (M= 2.32, SD= 1.06).

Taken together, analyses indicated interesting patterns regarding group identifications. Although activists and non-activists nominated similar groups for those impacted by climate change and those opposed to the climate change movement, activists identified with those groups more strongly.

What predicts normative and non-normative collective action, and the role of BLM beliefs?

I predicted that strong identification with an impacted group, high perceived efficacy, high negative affect, and high obligations would predict normative collective action. I also predicted that weak group identification, low efficacy, high negative affect and high obligations would predict non-normative collective action, and attention to and

familiarity with the BLM movement will specifically predict non-normative action. To test these hypotheses, I conducted four regression analyses. Specifically, I entered twelve predictor variables (identification as activist vs non-activist, climate change beliefs, climate change moral convictions, impacted group identification, opposition group identification, activist identification, efficacy, obligation, positive affect, negative affect, and BLM familiarity) into separate regression analyses to predict the four outcome variables (low cost normative action, moderate cost normative action, low cost non-normative action and high cost non-normative action).

As can be seen in Table 4, increased participant identification as a climate activist, increased beliefs in climate change, increased moral convictions of climate change, increased identification with an impacted group, increased efficacy, and decreased negative affect were all significant predictors of low cost normative collective action. In contrast, only increased participant identification as a climate activist, increased efficacy, and increased obligation were all significant predictors of moderate cost normative collective action.

As shown in Table 5, increased participant identification as a climate activist, increased identification with activist groups, and increased negative affect were significant predictors of low cost non-normative collective action. A different set of variables predicted high cost non-normative action, Specifically, increased identification with the opposition group, increased negative affect, and increased familiarity with the BLM movement were significant predictors of high cost non-normative collective action

The predictors of low cost normative collective action were somewhat consistent with hypotheses.I predicted that high identity with impacted groups, high efficacy, high

affect, and high obligation would predict normative collective action. Consistent with hypotheses, identity, efficacy, and negative affect were significant predictors of low cost normative action. Contrary to my hypothesis, obligation was not a significant predictor. Negative affect had a negative relationship with low cost action, suggesting that decreased negative affect when considering participation in climate activism predicted greater willingness to engage in low cost action. Additionally, findings regarding moderate cost normative action were also somewhat consistent with my hypotheses.While efficacy and obligation were significant predictors of moderate normative action as I predicted in my hypothesis, group identity and negative affect were not significant predictors of moderate cost action, which is inconsistent with my hypothesis. Interestingly, efficacy and whether the participant self-identified as an activist were the only two predictors that were consistent across low- and moderate-cost normative collective action.

When it came to non-normative collective action, my hypotheses also received mixed support. I predicted strong negative affect, high moral conviction, low efficacy, weak group identity, and specifically familiarity with the BLM movement would predict non-normative collective action. The predictors of low cost non-normative action were somewhat inconsistent with my hypotheses. Although increased negative affect was a significant predictor, self-identity as an activist and identification with activist groups were also significant predictors, in contrast to my hypothesis that low group identification would predict non-normative action. High cost non-normative action was consistent with my hypothesis. Strong identification with a group in opposition with climate change activism suggests weak ingroup identification. Significant predictors of

negative affect and familiarity with the BLM movement were also consistent with my hypotheses. Interestingly, increased negative affect was the only predictor variable that was consistent across both models for non-normative collective action. Also, interestingly, there were no predictor variables that were consistent across all four models for both normative and non-normative collective action.

Table 4

Predictors of Normative Collective Action

	Low Cost Normative				Moderate Cost Normative			
	B	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*
Activist vs. Non-Activist	**.22**	**.24**	**3.17**	**.002**	**.47**	**.24**	**7.20**	**.000**
Climate Change Beliefs	**.27**	**.11**	**3.37**	**.001**	.09	.11	1.24	.216
Moral Conviction	**.24**	**.13**	**2.44**	**.016**	-.06	.13	-.69	.492
Impacted Group Identification	**.12**	**.08**	**2.91**	**.059**	-.00	.08	-,07	.938
Opposition Group Identification	.01	.09	.13	.896	-.00	.09	-.08	.930
Activist Identification	.13	.12	1.57	.120	.01	.12	.18	.853
Efficacy	**.19**	**.14**	**1.94**	**.055**	**.28**	**.14**	**3.03**	**.003**
Positive Affect	-.03	.14	-.33	.741	-.05	.14	-.64	.525
Negative Affect	**-.17**	**.10**	**-2.70**	**.008**	.08	.10	1.53	.130
Obligation	.03	.17	.26	.791	**.30**	**.17**	**2.62**	**.010**
BLM Familiarity	.00	.08	.08	.936	-.04	.08	-.89	.371

Note: Significant effects are in bold

Table 5

	Low Cost Non-Normative				High Cost Non-Normative			
	B	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*
Activist vs. Non-Activist	**.23**	**.35**	**2.13**	**.036**	.16	.27	1.69	.093
Climate Change Beliefs	.13	.16	1.08	.283	.08	.13	.73	.463
Moral Conviction	.04	.19	.26	.796	-.01	.15	-.07	.945
Impacted Group Identification	-.08	,12	-.95	.343	.00	.09	.04	.964
Opposition Group Identification	.05	.14	.59	.554	**.24**	**.11**	**2.75**	**.007**
Activist Identification	**.24**	**.17**	**2.02**	**.046**	.01	.13	-.06	.950
Efficacy	.14	.20	.91	.364	.05	.16	.37	.711
Positive Affect	-.07	.21	-.46	.642	.11	.17	.81	.420
Negative Affect	**.46**	**.14**	**4.93**	**.000**	**.43**	**.11**	**5.17**	**.000**
Obligation	-.16	.25	-.88	.373	-.13	.19	-.79	.431
BLM Familiarity	.10	.11	1.36	.175	**.24**	**.09**	**3.54**	**.001**

Predictors of Non-Normative Collective Action

Note: Significant effects are in bold

Discussion

Taken together, analyses showed that activists and non-activists identified multiple broad groups that were important to and impacted by climate change such as humans in general and the youth/future generations. This supports my hypothesis that a relevant impacted group would be humans and humanity in general. When it came to the predictors of normative climate change activism, findings painted a complex picture. Low and moderate cost normative collective action were both predicted by participants' self-identification as a climate activist and efficacy. Beliefs and moral convictions of climate change, identification with an impacted group, and negative affect were additional predictors of low cost normative collective action, but not of moderate cost normative collective action. Obligation was a significant predictor of moderate cost normative collective action, but not of low cost normative collective action. Similarly, findings painted a complex picture when it came to predictors of non-normative collective action. Low cost and high cost non-normative collective action were both predicted by negative affect. Self-identification as an activist and identification with activist groups were both additional predictors of low cost non-normative action but not of high cost non-normative action. Identification with an opposition group and familiarity with the BLM movement were significant predictors of high cost non-normative action but not of low cost non-normative action. This latter finding was particularly relevant to my hypothesis about BLM protests and spillover effects – as familiarity with BLM predicted greater support for high cost non-normative collective action. In sum, findings partially supported my hypotheses that predicted that the motivating factors identified in previous literature- specifically high identity with impacted groups, high efficacy,high affect, and high obligation would be predictors of normative collective action and low identity with

impacted groups, low efficacy, high affect, high obligation and familiarity with the BLM movement would predict non-normative forms of collective action.

Conceptually, these results provide a critique to theories that focus on identification with specific ingroups as predictors of collective action. Recall that previous literature has shown that social identity is central to creating ingroups and outgroups, and that identification with a specific ingroup predicts engagement in collective action. However, the groups identified as being relevant/impacted by climate change are not necessarily specific ingroups, but broader groups with more abstract boundaries. Additionally, although non-activists and activists identified the same impacted and opponent groups, activists showed greater identification with both impacted and opposition groups. This is surprising, and somewhat puzzling, as previous literature has suggested that strong identification with an ingroup and low identification with an outgroup leads to a collective group identity. My results suggest that these boundaries between a collective ingroup and outgroup are not well defined within climate activism. One explanation for this is that if a collective identity is incredibly broad (i.e., humans and all of humanity), then even groups in opposition to climate change activism will be perceived as being impacted by climate change, and therefore the boundaries between a clear ingroup and a clear outgroup are undefined.

Importantly, self-identification as a climate activist, although not strength of identification with climate activist groups, was a predictor of low cost normative, moderate cost normative, and low cost non-normative collective action. It is likely that politicized identity is a more relevant predictor of engagement in climate activism than collective group identity. Recall from above that politicized identity, in the context of climate activism, is an identity with a social movement rather than a disadvantaged group, and therefore identity with the climate activism

movement may be more salient to the individual and more predictive of participation in climate activism than identity with a specific ingroup. This further deepens our understanding of collective action and highlights the difference in collective action outcomes when there are no identifiable groups within a social movement.

Additionally, my results show the complex relationships between other predictor variables- efficacy, affect, and obligation – and collective action. According to SIMCA, increased efficacy, increased negative affect, and increased obligation would predict engagement in normative collective action. However, my findings show an inconsistent relationship between these predictors and different outcomes of collective action. Specifically, there were mixed findings regarding the relationships between the predictors depending on cost (low or high) and form of collective action (normative or non-normative). These predictors add to our understanding of the role these motivating factors play in different types of collective action when there are no identifiable groups. This emphasizes the need for more research on the relationship between efficacy, affect, and obligation and the effect of politicized identity on these predictors.

Finally, my findings for familiarity with the BLM movement and engagement in high cost non-normative action contributes to our understanding of how modern social movements may influence one another through the spillover effect. It is important to note that these results do not suggest that the BLM movement is a non-normative social movement, or that the movement promotes violence and rioting. Recall that the media was more likely to emphasize the non-normative forms of collective action (i.e., disruption and looting) rather than the legitimate demands for equality (Kilgo, 2020). It is possible that the media's distorted representation of the BLM protests and increased coverage of riots and looting facilitated the

relationship between participants' familiarity with the BLM movement and increased willingness to engage in non-normative actions.

Limitations and Future Directions

Although this research makes meaningful contributions, it also has some limitations that future research may tackle. Many of the participants from Amazon mTurk provided nonsensical responses, which considerably decreased our sample size. Additionally, many climate activist groups were contacted that did not respond, which further limited the number of climate activists in the sample. These characteristics of our sample might have something to do with puzzles in our data and unexpected findings, such as the puzzling relationship between activists and identification with opposition groups. Future studies would benefit from larger and more high quality samples, including more climate activists. Furthermore, future studies might observe actual activist behavior rather than relying on self-reported willingness to engage in action. Finally, additional future directions for this research would be to further explore modern social movements and how they overlap through the spillover effect – we are living during a time where collective action regularly makes the news. Examining how familiarity with various activist movements (including BLM as well as, for example, the recent rally that led to storming the capitol) and willingness to engage in collective action is an agenda for future research. Additionally, further exploring the motivators of collective action through the climate change movement in specific can provide different perspectives of the motivators of collective action in general. As climate change becomes an increasingly pressing issue, it will be interesting to see how individuals join a collective movement to advocate for a better world not only for themselves, but for those that will be the most affected.

A Closing Thought

To conclude, previous literature has focused on identifiable groups within collective action. Climate change activism is an example of collective action when there may be fewer specific, identifiable groups, and where there are undefined boundaries between ingroups and outgroups. It is possible that the politicized identity of a climate activist is a stronger predictor of collective action than an identification with a specific in-group. Likewise, this research shows important connections between different collective action movements such as the BLM and climate change activism movements. Accordingly, this research provides further insight to climate activism as a collective action movement, and also contributes to research on inter-movement spillover between different social movements.

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Appendix

Questionnaire

Welcome! Thank you for your interest in this study. This survey will assess beliefs about climate change. Please answer the following questions to the best of your ability. Thank you for your time and input!

[New Page]

Do you consider yourself a climate change activist – that is, do you actively participate in activities with the aim of preserving or protect the environment?

○Yes

○No

If so, please fill in the name of the climate change activism group you are an active member of below. If you are not a member of a climate change activism group, leave this section blank:

_____

[New Page]

Which of the following have you done in the last year with the aim of preserving and protecting the environment?

	Yes	No
Sign a petition	○	○
Attend an event on climate change	○	○
Distribute flyers or information about climate change	○	○
Volunteer to collect signatures for a petition	○	○
Attend a protest/demonstration	○	○
Organize a protest	○	○
Join a climate activism group (at school, work, within the community)	○	○

Spend time going door-to-door in your neighborhood collecting donations	○	○

[If participants say yes to the activist question item, and report having done at least one activist activity, they will skip to the activist portion of the questionnaire. If no to any of the above, they complete the non-activist portion of the questionnaire.]

[Non-activist portion of questionnaire]

[New Page]

To what extent do you agree with the following questions?

	Strongly Disagree	Disagree	Slightly Disagree	Neutral/ No Opinion	Slightly Agree	Agree	Strongly Agree
I believe that the earth's climate is changing	○	○	○	○	○	○	○
I believe that the climate is changing due to human action	○	○	○	○	○	○	○
I believe climate change has already occurred	○	○	○	○	○	○	○
Climate change has already occurred in my region	○	○	○	○	○	○	○
Climate change will have a mostly positive impact	○	○	○	○	○	○	○

Climate change will have a mostly negative impact	○	○	○	○	○	○	○
Global climate change will impact our environment in the next 10 years	○	○	○	○	○	○	○
Global climate change will impact future generations	○	○	○	○	○	○	○
Climate change will have a direct impact on me	○	○	○	○	○	○	○

[New Page]

To what extent is your position on climate change…

	Not at all	**Slightly**	**Moderately**	**Much**	**Very much**
…important to you?	○	○	○	○	○
...something that you care a lot about?	○	○	○	○	○
...important compared to other issues that you're dealing with right now?	○	○	○	○	○
…connected to your beliefs about fundamental right and wrong?	○	○	○	○	○

... a reflection of your core moral beliefs and convictions?	○	○	○	○	○
... a moral stance?	○	○	○	○	○
... based on a moral principle?	○	○	○	○	○

[New Page]

When you think about climate change, what groups come to mind. That is, what groups are most relevant or important to you when you think about the possible impact of climate change? (If <u>NO</u> groups are important, leave the following question blank.)

[New page, if no groups are identified, these two questions will be skipped]

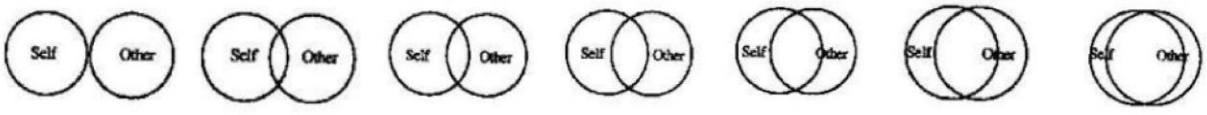
To what extent will these groups be affected by climate change?

- ○ Not at all affected
- ○ Affected a little
- ○ Somewhat affected
- ○ Strongly affected
- ○ Very strongly affected

How much do you care about those groups?

- ○ I do not care at all
- ○ I care very little
- ○ I care somewhat
- ○ I care strongly
- ○ I care very strongly

In the pictures below, the circle labeled "self" represents you, and the circle labeled "other" represents the group written above. Please choose the picture below that best describes your relationship with this group.



❍ ❍ ❍ ❍ ❍ ❍ ❍

[New Page]

When you think of the groups you listed above….

	Not at all	Slightly	Moderately	Much	Very much
How much do you identify with the group(s)?	○	○	○	○	○
How similar are you to the group(s) in terms of general attitudes and beliefs?	○	○	○	○	○
How much do you like the group(s)?	○	○	○	○	○
How well do you fit in with the group(s)?	○	○	○	○	○
How important is/are the group(s) to you?	○	○	○	○	○
How strong are your ties to the group(s)?	○	○	○	○	○
How much do you see yourself as belonging to the group(s)?	○	○	○	○	○

[New Page]

Are the following specific groups relevant to your positions on climate change?

	Not At All relevant	Slightly relevant	Moderately relevant	Much relevance	Very Much relevant
Children	❍	❍	❍	❍	❍
Friends	❍	❍	❍	❍	❍
Family	❍	❍	❍	❍	❍
Peers	❍	❍	❍	❍	❍
Vulnerable Groups of People	❍	❍	❍	❍	❍
Humans in General	❍	❍	❍	❍	❍
None of the above groups	❍	❍	❍	❍	❍

[New Page]

When thinking about climate change, what groups stand in the way of the climate change movement? In other words, what groups come to mind that impede, in some way, the fight against climate change? (If <u>NO</u> groups are impeding the fight against climate change, leave the question blank)

[New Page, if no groups were identified these two questions will be skipped]

To what extent will these groups be effected by climate change?

○ Not at all effected

○ Effected a little
○ Somewhat effected
○ Strongly effected
○ Very strongly effected

How much do you care about those groups?

○ I do not care at all
○ I care very little
○ I care somewhat
○ I care strongly
○ I care very strongly

In the pictures below, the circle labeled "self" represents you, and the circle labeled "other" represents the group written above. Please choose the picture below that best describes your relationship with this group.

[New Page]

When you think of the groups you listed above….

	Not at all	Slightly	Moderately	Much	Very much
How much do you identify with the group(s)?	○	○	○	○	○
How similar are you to the group(s) in terms of general attitudes and beliefs?	○	○	○	○	○
How much do you like the group(s)?	○	○	○	○	○

How well do you fit in with the group(s)?	○	○	○	○	○
How important is/are the group(s) to you?	○	○	○	○	○
How strong are your ties to the group(s)?	○	○	○	○	○
How much do you see yourself as belonging to the group(s)?	○	○	○	○	○

[New Page]

Now think about climate change activists.

In the pictures below, the circle labeled "self" represents you, and the circle labeled "other" represents climate change activists. Please choose the picture below that best describes your relationship with this group.

❍ ❍ ❍ ❍ ❍ ❍ ❍

When considering climate activist groups…

	Not at all	Slightly	Moderately	Much	Very much
How much do you identify with climate activists as a group?	○	○	○	○	○

How similar are you to climate activists in terms of general attitudes and beliefs?	○	○	○	○	○
How much do you like climate activists as a whole?	○	○	○	○	○
How well do you fit in with climate activists as a group?	○	○	○	○	○
How important are climate activists as a group to you?	○	○	○	○	○
How strong are your ties to climate activists as a group?	○	○	○	○	○
How much do you see yourself as belonging to climate activists as a group?	○	○	○	○	○

[New Page]

When considering participation in climate activism, how much do you feel that your participation could…

	Not at all	Slightly	Moderately	Much	Very Much
…send a message to others?	○	○	○	○	○
…make a difference?	○	○	○	○	○

…change the situation?	○	○	○	○	○
…have an impact?	○	○	○	○	○

How much would you feel each of the following emotions if you took action to further the fight against climate change?

	Not at all	Slightly	Moderately	Much	Very much
Regret	○	○	○	○	○
Happiness	○	○	○	○	○
Hope	○	○	○	○	○
Guilt	○	○	○	○	○
Gratification	○	○	○	○	○
Contempt	○	○	○	○	○
Independent	○	○	○	○	○
Fear	○	○	○	○	○
Powerful	○	○	○	○	○
Disappointment	○	○	○	○	○
Self-blame	○	○	○	○	○

Pride	○	○	○	○	○
Shame	○	○	○	○	○
Responsible	○	○	○	○	○
Dissatisfaction with self	○	○	○	○	○
Honor	○	○	○	○	○
Pain	○	○	○	○	○
Important	○	○	○	○	○
Anger	○	○	○	○	○
Hopelessness	○	○	○	○	○
Strong	○	○	○	○	○
Disgust	○	○	○	○	○

How much would you feel each of the following emotions if you did NOT take action to fight against climate change?

	Not at all	Slightly	Moderately	Much	Very much
Regret	○	○	○	○	○

Happiness	○	○	○	○	○
Hope	○	○	○	○	○
Guilt	○	○	○	○	○
Gratification	○	○	○	○	○
Contempt	○	○	○	○	○
Independent	○	○	○	○	○
Fear	○	○	○	○	○
Powerful	○	○	○	○	○
Disappointment	○	○	○	○	○
Self-blame	○	○	○	○	○
Pride	○	○	○	○	○
Shame	○	○	○	○	○
Responsible	○	○	○	○	○
Dissatisfaction with self	○	○	○	○	○
Honor	○	○	○	○	○
Pain	○	○	○	○	○

Important	○	○	○	○	○
Anger	○	○	○	○	○
Hopelessness	○	○	○	○	○
Strong	○	○	○	○	○
Disgust	○	○	○	○	○

[New Page]

When considering climate change activism, how much do you feel…

	Not at all	**Slightly**	**Moderately**	**Much**	**Very Much**
...an obligation to improve things for your present self?	○	○	○	○	○
…an obligation to improve things for your future self?	○	○	○	○	○
…an obligation to improve things for others?	○	○	○	○	○
… a moral obligation to	○	○	○	○	○

participate in climate activism?					
… a moral obligation to take a stand against those who oppose climate activism?	○	○	○	○	○
… that you *must* take a stand against those who oppose climate activism?	○	○	○	○	○
… that you *must* take part in climate activism?	○	○	○	○	○

[New Page]

Assuming a world where it is safe to do the following, how likely would you be to do each of the following actions to support your position on climate change?

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely
Sign a petition	○	○	○	○	○	○
Contribute a small amount of money	○	○	○	○	○	○
Contribute a large sum of money	○	○	○	○	○	○

Sleep in a public space during a demonstration	○	○	○	○	○	○
Attend an event on climate change	○	○	○	○	○	○
Distribute flyers or information about climate change	○	○	○	○	○	○
Volunteer to collect signatures for a petition	○	○	○	○	○	○
Attend a protest	○	○	○	○	○	○
Vote for those who support climate change policy	○	○	○	○	○	○
Discuss climate change with a friend	○	○	○	○	○	○
Discuss climate change with a family member	○	○	○	○	○	○
Discuss climate change with a stranger	○	○	○	○	○	○

Discuss climate change with a climate change denier	○	○	○	○	○	○
Organize a protest	○	○	○	○	○	○
Post on social media about climate change	○	○	○	○	○	○
Contact your government representative	○	○	○	○	○	○
Join a climate activism group (at school or work)	○	○	○	○	○	○
Join a climate activism group	○	○	○	○	○	○
Spend an hour going door-to-door in your neighborhood collecting donations	○	○	○	○	○	○
Spend a weekend going door-to-door collecting donations	○	○	○	○	○	○
Speak out in a group	○	○	○	○	○	○

Speak out in a group of climate change deniers	○	○	○	○	○	○
Post signs in front of your home	○	○	○	○	○	○
Put a bumper sticker on your car	○	○	○	○	○	○

Which of the following actions, **if taken by others,** would you be willing to **support** within the context climate change activism :

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely
Resisting arrest	○	○	○	○	○	○
Leave a message in spray paint on private property	○	○	○	○	○	○
Destroying replaceable public property, such as a public lawn	○	○	○	○	○	○
Keying a car	○	○	○	○	○	○
Pepper Spraying	○	○	○	○	○	○
Starting a fire in a public space	○	○	○	○	○	○

Rioting	○	○	○	○	○	○
Violent altercations	○	○	○	○	○	○
Looting a chain a part of a large corporation	○	○	○	○	○	○
Blocking highways	○	○	○	○	○	○
Blocking entrance into a public building	○	○	○	○	○	○
Setting fire to a car	○	○	○	○	○	○
Disturbing a public event	○	○	○	○	○	○
Attack a police officer	○	○	○	○	○	○
Throwing stones/bottles	○	○	○	○	○	○
Arson attacks on public buildings	○	○	○	○	○	○
Arson attacks on private property of responsible persons	○	○	○	○	○	○
Attack a responsible person	○	○	○	○	○	○

Which of the following would **you** be willing to **participate** in within climate change activism:

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely
Resisting arrest	○	○	○	○	○	○
Leave a message in spray paint on private property	○	○	○	○	○	○
Destroying replaceable public property, such as a public lawn	○	○	○	○	○	○
Keying a car	○	○	○	○	○	○
Pepper Spraying	○	○	○	○	○	○
Starting a fire in a public space	○	○	○	○	○	○
Rioting	○	○	○	○	○	○
Violent altercations	○	○	○	○	○	○
Looting a chain a part of a large corporation	○	○	○	○	○	○
Blocking highways	○	○	○	○	○	○
Blocking entrance into a public building	○	○	○	○	○	○

Setting fire to a car	○	○	○	○	○	○
Disturbing a public event	○	○	○	○	○	○
Attack a police officer	○	○	○	○	○	○
Throwing stones/bottles	○	○	○	○	○	○
Arson attacks on public buildings	○	○	○	○	○	○
Arson attacks on private property of responsible persons	○	○	○	○	○	○
Attack a responsible person	○	○	○	○	○	○

[New Page]

Finally, please select as little or as many websites listed below as you desire to subscribe to a newsletter/join the following climate activist groups

- Green Peace- A non-violent creative activist group
- Extinction Rebellion- A non-violent, civil disobedience group
- 350.org- An international organization looking for creative and innovative ways to solve the climate crisis
- Sunrise Movement- An American youth-led group advocating for political action
- Union of Concerned Scientists- Non-profit scientific advocacy group

3 [Activist Portion of the Questionnaire]

[New Page]

To what extent do you agree with the following questions?

	Strongly Disagree	Disagree	Slightly Disagree	Neutral/ No Opinion	Slightly Agree	Agree	Strongly Agree
I believe that the earth's climate is changing	○	○	○	○	○	○	○
I believe that the climate is changing due to human action	○	○	○	○	○	○	○
I believe climate change has already occurred	○	○	○	○	○	○	○
Climate change has already occurred in my region	○	○	○	○	○	○	○
Climate change will have a mostly positive impact	○	○	○	○	○	○	○
Climate change will have mostly negative impacts	○	○	○	○	○	○	○
Global Climate change will impact our environment in the next 10 years	○	○	○	○	○	○	○

Global climate change will impact future generations	○	○	○	○	○	○	○
Climate change will have a direct impact on me	○	○	○	○	○	○	○

[New Page]

To what extent is your position on climate change…

	Not at all	**Slightly**	**Moderately**	**Much**	**Very much**
…important to you?	○	○	○	○	○
...something that you care a lot about?	○	○	○	○	○
...important compared to others issues that you're dealing with right now?	○	○	○	○	○
…connected to your beliefs about fundamental right and wrong?	○	○	○	○	○
... a reflection of your core moral beliefs and convictions?	○	○	○	○	○
... a moral stance?	○	○	○	○	○
... based on a moral principle?	○	○	○	○	○

[New Page]

When you think about climate change, what groups come to mind. That is, what groups are most relevant or important to you when you think about the possible impact of climate change? (If <u>NO</u> groups are important, leave the following question blank.)

[New page, if no groups are identified, these two questions will be skipped]

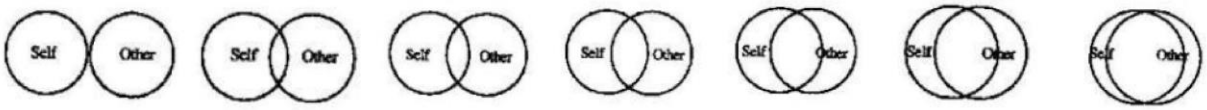
To what extent will these groups be effected by climate change?

- ○ Not at all effected
- ○ Effected a little
- ○ Somewhat effected
- ○ Strongly effected
- ○ Very strongly effected

How much do you care about those groups?

- ○ I do not care at all
- ○ I care very little
- ○ I care somewhat
- ○ I care strongly
- ○ I care very strongly

In the pictures below, the circle labeled "self" represents you, and the circle labeled "other" represents the group written above. Please choose the picture below that best describes your relationship with this group.



○ ○ ○ ○ ○ ○ ○

[New Page]

When you think of the groups you listed above….

	Not at all	Slightly	Moderately	Much	Very much

How much do you identify with the group(s)?	○	○	○	○	○
How similar are you to the group(s) in terms of general attitudes and beliefs?	○	○	○	○	○
How much do you like the group(s)?	○	○	○	○	○
How well do you fit in with the group(s)?	○	○	○	○	○
How important is/are the group(s) to you?	○	○	○	○	○
How strong are your ties to the group(s)?	○	○	○	○	○
How much do you see yourself as belonging to the group(s)?	○	○	○	○	○

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Are the following specific groups relevant to your positions on climate change?

	Not At All relevant	Slightly relevant	Moderately relevant	Much relevance	Very Much relevant

Children	❍	❍	❍	❍	❍
Friends	❍	❍	❍	❍	❍
Family	❍	❍	❍	❍	❍
Peers	❍	❍	❍	❍	❍
Vulnerable Groups of People	❍	❍	❍	❍	❍
Humans in General	❍	❍	❍	❍	❍
None of the above groups	❍	❍	❍	❍	❍

[New Page]

When thinking about climate change, what groups stand in the way of the climate change movement? In other words, what groups come to mind that impede, in some way, the fight against climate change? (If <u>NO</u> groups are impeding the fight against climate change, leave the question blank)

[New Page, if no groups were identified these two questions will be skipped]

To what extent will these groups be effected by climate change?

- ○ Not at all effected
- ○ Effected a little
- ○ Somewhat effected
- ○ Strongly effected
- ○ Very strongly effected

How much do you care about those groups?

- ○ I do not care at all

○ I care very little
○ I care somewhat
○ I care strongly
○ I care very strongly

In the pictures below, the circle labeled "self" represents you, and the circle labeled "other" represents the group written above. Please choose the picture below that best describes your relationship with this group.

❍ ❍ ❍ ❍ ❍ ❍ ❍

[New Page]

When you think of the groups you listed above….

	Not at all	Slightly	Moderately	Much	Very much
How much do you identify with the group(s)?	○	○	○	○	○
How similar are you to the group(s) in terms of general attitudes and beliefs?	○	○	○	○	○
How much do you like the group(s)?	○	○	○	○	○
How well do you fit in with the group(s)?	○	○	○	○	○
How important is/are the group(s) to you?	○	○	○	○	○

How strong are your ties to the group(s)?	○	○	○	○	○
How much do you see yourself as belonging to the group(s)?	○	○	○	○	○

[New Page]

When considering your own climate activism group…

	Not at all	Slightly	Moderately	Much	Very much
How much do you identify with climate activists as a group?	○	○	○	○	○
How similar are you to climate activists in terms of general attitudes and beliefs?	○	○	○	○	○
How much do you like climate activists as a whole?	○	○	○	○	○
How well do you fit in with climate activists as a group?	○	○	○	○	○
How important are climate activists as a group to you?	○	○	○	○	○
How strong are your ties to climate activists as a group?	○	○	○	○	○

How much do you see yourself as belonging to climate activists as a group?	○	○	○	○	○

[New Page]

When considering your participation in climate activism, how much do you feel that your participation could…

	Not at all	Slightly	Moderately	Much	Very Much
…send a message to others?	○	○	○	○	○
…make a difference?	○	○	○	○	○
…change the situation?	○	○	○	○	○
…have an impact?	○	○	○	○	○

How much do you feel each of the following emotions when you take action to further the fight against climate change?

	Not at all	Slightly	Moderately	Much	Very much
Regret	○	○	○	○	○
Happiness	○	○	○	○	○
Hope	○	○	○	○	○

Guilt	○	○	○	○	○
Gratification	○	○	○	○	○
Contempt	○	○	○	○	○
Independent	○	○	○	○	○
Fear	○	○	○	○	○
Powerful	○	○	○	○	○
Disappointment	○	○	○	○	○
Self-blame	○	○	○	○	○
Pride	○	○	○	○	○
Shame	○	○	○	○	○
Responsible	○	○	○	○	○
Dissatisfaction with self	○	○	○	○	○
Honor	○	○	○	○	○
Pain	○	○	○	○	○
Important	○	○	○	○	○
Anger	○	○	○	○	○

Hopelessness	○	○	○	○	○
Strong	○	○	○	○	○
Disgust	○	○	○	○	○

How much would you feel each of the following emotions if you did NOT take action to fight against climate change?

	Not at all	Slightly	Moderately	Much	Very much
Regret	○	○	○	○	○
Happiness	○	○	○	○	○
Hope	○	○	○	○	○
Guilt	○	○	○	○	○
Gratification	○	○	○	○	○
Contempt	○	○	○	○	○
Independent	○	○	○	○	○
Fear	○	○	○	○	○
Powerful	○	○	○	○	○
Disappointment	○	○	○	○	○

Self-blame	○	○	○	○	○
Pride	○	○	○	○	○
Shame	○	○	○	○	○
Responsible	○	○	○	○	○
Dissatisfaction with self	○	○	○	○	○
Honor	○	○	○	○	○
Pain	○	○	○	○	○
Important	○	○	○	○	○
Anger	○	○	○	○	○
Hopelessness	○	○	○	○	○
Strong	○	○	○	○	○
Disgust	○	○	○	○	○

[New Page]

When considering your climate change activism, how much do you feel…

	Not at all	**Slightly**	**Moderately**	**Much**	**Very Much**
...an obligation to	○	○	○	○	○

improve things for your present self?					
…an obligation to improve things for your future self?	○	○	○	○	○
…an obligation to improve things for others?	○	○	○	○	○
… a moral obligation to participate in climate activism?	○	○	○	○	○
… a moral obligation to take a stand against those who oppose climate activism?	○	○	○	○	○
… that you *must* take a stand against those who oppose climate activism?	○	○	○	○	○
… that you *must* take part in climate activism?	○	○	○	○	○

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Assuming that a world where it is safe to do the following, how likely would you be to do each of the following actions to support your position on climate change?

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely
Sign a petition	○	○	○	○	○	○
Contribute a small amount of money	○	○	○	○	○	○
Contribute a large sum of money	○	○	○	○	○	○
Sleep in a public space during a demonstration	○	○	○	○	○	○
Attend an event on climate change	○	○	○	○	○	○
Distribute flyers or information about climate change	○	○	○	○	○	○
Volunteer to collect signatures for a petition	○	○	○	○	○	○
Attend a protest	○	○	○	○	○	○
Vote for those who	○	○	○	○	○	○

support climate change policy						
Discuss climate change with a friend	○	○	○	○	○	○
Discuss climate change with a family member	○	○	○	○	○	○
Discuss climate change with a stranger	○	○	○	○	○	○
Discuss climate change with a climate change denier	○	○	○	○	○	○
Organize a protest	○	○	○	○	○	○
Post on social media about climate change	○	○	○	○	○	○
Contact your government representative	○	○	○	○	○	○
Join a climate activism group (at school, work, library)	○	○	○	○	○	○
Join a climate activism group	○	○	○	○	○	○

Spend an hour going door-to-door in your neighborhood collecting donations	○	○	○	○	○	○
Spend a weekend going door-to-door collecting donations	○	○	○	○	○	○
Speak out in a group	○	○	○	○	○	○
Speak out in a group of climate change deniers	○	○	○	○	○	○
Post signs in front of your home	○	○	○	○	○	○
Put a bumper sticker on your car	○	○	○	○	○	○

Which of the following actions, **if taken by others,** would you be willing to **support** within the context climate change activism :

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely
Resisting arrest	○	○	○	○	○	○
Leave a message in spray paint on	○	○	○	○	○	○

private property						
Destroying replaceable public property, such as a public lawn	○	○	○	○	○	○
Keying a car	○	○	○	○	○	○
Pepper Spraying	○	○	○	○	○	○
Starting a fire in a public space	○	○	○	○	○	○
Rioting	○	○	○	○	○	○
Violent altercations	○	○	○	○	○	○
Looting a chain a part of a large corporation	○	○	○	○	○	○
Blocking highways	○	○	○	○	○	○
Blocking entrance into a public building	○	○	○	○	○	○
Setting fire to a car	○	○	○	○	○	○
Disturbing a public event	○	○	○	○	○	○
Attack a police officer	○	○	○	○	○	○
Throwing stones/bottles	○	○	○	○	○	○

Arson attacks on public buildings	○	○	○	○	○	○
Arson attacks on private property of responsible persons	○	○	○	○	○	○
Attack a responsible person	○	○	○	○	○	○

Which of the following would **you** be willing to **participate** in within climate change activism:

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Likely nor Unlikely	Somewhat Likely	Likely
Resisting arrest	○	○	○	○	○	○
Leave a message in spray paint on private property	○	○	○	○	○	○
Destroying replaceable public property, such as a public lawn	○	○	○	○	○	○
Keying a car	○	○	○	○	○	○
Pepper Spraying	○	○	○	○	○	○
Starting a fire in a public space	○	○	○	○	○	○
Rioting	○	○	○	○	○	○

Violent altercations	○	○	○	○	○	○
Looting a chain a part of a large corporation	○	○	○	○	○	○
Blocking highways	○	○	○	○	○	○
Blocking entrance into a public building	○	○	○	○	○	○
Setting fire to a car	○	○	○	○	○	○
Disturbing a public event	○	○	○	○	○	○
Attack a police officer	○	○	○	○	○	○
Throwing stones/bottles	○	○	○	○	○	○
Arson attacks on public buildings	○	○	○	○	○	○
Arson attacks on private property of responsible persons	○	○	○	○	○	○
Attack a responsible person	○	○	○	○	○	○

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2020 has been a year full of different kinds of activism. These next questions assess the effects that such events have changed the way we view protesting.

How familiar are you with…

	Not at all Familiar	Slightly Familiar	Somewhat Familiar	Moderately Familiar	Extremely Familiar
… The Black Lives Matter Movement?	○	○	○	○	○
… the Black Lives Matter movement in the last year?	○	○	○	○	○
… The coverage of the BLM protests on the news?	○	○	○	○	○

When considering the last year of BLM protests, what percentage of the protests (on a scale from 0-100%) do you believe were normative (i.e. peaceful, non-violent protests, etc.)?

When considering the last year of BLM protests, what percentage of the protests (on a scale from 0-100%) you believe were non-normative (i.e. vandalism, looting, rioting, etc.)?

To what extent is your position on Black Lives Matter…

	Not at all	**Slightly**	**Moderately**	**Much**	**Very much**

…important to you?	○	○	○	○	○
...something that you care a lot about?	○	○	○	○	○
...important compared to others issues that you're dealing with right now?	○	○	○	○	○
…connected to your beliefs about fundamental right and wrong?	○	○	○	○	○
... a reflection of your core moral beliefs and convictions?	○	○	○	○	○
... a moral stance?	○	○	○	○	○
... based on a moral principle?	○	○	○	○	○

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Demographics:

1. **What is your gender?**
   Male
   Female
   Other: _____

2. **What is your age? _____**

3. **What is your ethnicity? _____**

4. **Do you have children?**
   Yes
   No

5. **Would you like to / do you plan to have children in the future?**

Yes
No

6. **Are you a U.S Citizen?**
   Yes
   No

7. **What's the highest level of education you've3 completed?**
   No schooling completed
   Nursery school to 8th grade
   Some high school, no diploma
   High school graduate, diploma or equivalent
   Some college credit, no degree
   Trade/technical/vocational training
   Associate degree
   Bachelor's degree
   Master's degree
   Professional degree
   Doctorate degree
8. **What is your employment status?**
   Employed for wages
   Self-employed
   Unemployed and looking for work
   Unemployed but not currently looking for work
   A homemaker
   A student
   Military
   Retired
   Unable to work

9. **What <u>best</u> describes your household information?**
   My household has a hard time buying the things we need.
   My household has just enough money for the things we need.
   My household has no problem buying the things we need and sometimes we can also buy special things.
   My household has enough money to buy pretty much anything we want

10. **What best describes your political affiliation?**

    Democrat
    Republican
    Neither

[For participants who identified as democrat or republican]

How strongly do you identify as [Democrat/Republican]

Slightly
Moderately
Very Much

[For participants who identified as neither]

Are you closer to being a Democrat or Republican?

Closer to Democrat
Close to being Neither a Democrat Nor Republican
Closer to Republican

[New Page]