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Author: Ozcelik, Dogan

Title:

Exploring the effect of media framing, protest actions, and pre-existing attitudes on attitudes of support for climate change mitigation

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School of Psychological Science MscR Thesis Author: Dogan Ozcelik

Title: Exploring the Effect of Media Framing, Protest Actions, and Pre-Existing Attitudes on Attitudes of Support for Climate Change Mitigation

Supervisor: Prof. Colin Davis

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Abstract

How does media coverage of protests affect attitudes toward protesters, the actions they take, and the overarching cause that protests represent? There is a long and ongoing debate regarding what influence (if any) social movements exert on government policy. Social movements can capture public attention, and the attention of the elites via the actions they take - but protesters cannot control how these actions are framed into a narrative in the media and what impact this has on public support for the protest. Using a betweensubjects experimental design, we explored how the protest-paradigm framing (high or low intensity) and protestors actions (extreme or moderate) as well as pre-existing attitudes, namely attitudes to protest, political orientation and climate change concern and belief may predict attitudes to support for climate change mitigation activists 'Extinction Rebellion' (XR) in a UK sample. In line with our predictions, the multiple regression findings showed that the high-intensity protest paradigm frame reduced support for the action, the protestors, the cause, willingness to join and ratings of immorality. There was no main effect of frame for the mitigation support measure which is discussed in relation to methodological limitations such as the issue of multiple testing. Extreme actions, relative to moderate actions, had the same overall effect of reducing support on the various measures. A two-way interaction emerged between the frame and action for the support for the action measure which implied that the moderate action was supported statistically significantly more when the framing was less intense, whereas when the framing intensity was high, support for either moderate or extreme action was similarly low. Pre-existing attitudes to protests in general was a particularly important predictor of support outcomes, with some pre-existing attitudes interacting with the framing and action effect discussed further. The results substantiate concerns about media framing by showing that it can influence public attitudes to protest, whilst highlighting an activists-dilemma in which the same actions which are useful for getting the attention of the press, are the same actions that are not supported by the public.

Literature review:

Chapter 1: News media's coverage of protest: The Protest paradigm

Across disciplines, especially within collective action and media research, scholars have scrutinized the coverage of social movements to understand the role of the media in suppressing social movements that challenge the status quo (Mcleod & Detenber, 1999; Boyle et al., 2012). Typically, news stories tend to portray social movements in a negative light since "institutional logics of the mainstream media do not favour social movements" (see Gamson & Wolfsfeld, 1993; Gitlin, 2003; Olien, Tichenor, & Donohue, 1989; Caple & Bednarek, 2013, 2016; Olien et al., 1989). For example, news media narratives of protests tend to emphasise the protestors' violent actions as opposed to acknowledging protests as markers of social issues that require public attention; in other words, they focus on 'episodic' framing as opposed to 'thematic' framing (Gross, 2008; Iyengar, 1994; Baylor, 1996; Lee, 2014; Jasper & Poulsen, 1995; Boyle et al., 2004) and pit the protestors against the administrators of peace to reinforce the narrative of the status quo, thus delegitimising collective action that challenges it. This phenomenon is coined the "protest paradigm" (Chan and Lee, 1984), and it illustrates how various institutional and systematic forces contribute to the suppression of an uprising that deviates from the status quo.

The protest paradigm constitutes a news frame, and its characteristics, laid out by McLeod & Hertog (1998), are crucial in understanding how the formation of news stories following journalistic reporting patterns work to delegitimise protestors. The features of the protest paradigm have been classified into the following categories: narrative structures; the reliance on official sources; the invocation of public opinion; and other techniques of delegitimization and marginalisation (Mcleod & Detenber, 1999).

The narrative structure serves as a script for the news story. Several frames have been associated with the protest paradigm, in which the protestors are cast as adversaries to the police and the status quo (Mcleod & Hertog, 1998; Kilgo & Mourao, 2021). For instance, the press typically adopts a "violent crime" or "riot" frame when discussing issues pertaining to protests and protestor action in attempt to marginalise activists and their cause in public discourse, as opposed to highlight the significance of what the activists are

protesting for (Campbell et al., 2004; Kilgo et al., 2018; Muñoz & Anduiza, 2019; Chan 1995; Murdock, 1981).

The reliance on official sources in journalistic reports is vital in adding prestige to a story, and to maintain the illusion of objectivity (Mcleod & Hertog, 1998). This is particularly common for protest stories which are told from the perspective of those in power to marginalise the group challenging the status quo, thus journalists rely heavily on official definitions to achieve this marginalisation of protest groups (Fishman, 1980; Paletz & Entman, 1982; Sigal, 1973; Soley, 1992).

The invocation of public opinion is another characteristic of the protest paradigm according to scholars, and it is useful in communicating the deviance of protestors by depicting them as an isolated minority (McLeod & Hertog, 1998). As a result, journalists convey cues to public opinion via opinion polls, use of commentary of bystanders and so on., to influence public opinion in favour of the status quo.

Finally, any other techniques of delegitimization, marginalisation and demonisation are central characteristics of the 'protest paradigm'. For instance, literature techniques such as the use of quotation marks, stance adverbs, or visual cues depicting protestors surrounded by a large police presence, or activists protesting in the night are often used to portray them as deviants (for a full review see Mcleod & Hertog 1999; McLeod an Hertog, 1992; Mcleod and Detenber 1999; Mcleod, 2007). The current study adopts this theoretical perspective in the formation of our own stimuli.

Social movements strive for mainstream coverage for a variety of reasons (King, 2011; Wolfsfeld 2004; Koopmans, 2004; Banerjee, 2013; Agnone, 2007). Ultimately, they seek to gain greater support and advocate against perceived injustice through the increased awareness mainstream media provides with its accessibility to the masses (McLeod, 2007). However, this exposure may come at the cost of potentially delegitimising the protestors and their cause, marginalizing them as vital actors on the political stage in public discourse (Gamson & Wolfsfeld, 1993; Lipsky, 1968). Typically, it is the factions of a social movement that operate using 'extreme' measures that gain substantial news coverage (Amenta et al., 2017; Earl et al., 2004; Feinberg 2017, 2020), given the news media's propensity to frame protestors as deviant, threatening, or impotent (Lee, 2014; Boykoff, 2006; Gitlin, 2003). This systemic marginalisation of

protestors embedded within journalistic reporting techniques not only reduces popularity of a given social movement but contributes to the starkly polarised nature concerning most social movements (Carragee & Roefs, 2004; Gitlin, 2003; McLeod & Hertog, 1992; Shoemaker, 1984; Kilgo & Mourao 2021; Kilgo et al., 2021; Hart et al., 2020) including ones that concern climate change (Lee, 2014; Lyytimaki & Tapio. 2009; Chinn et al., 2020). For instance, the focal social movement of the present study concerns climate change mitigation group 'Extinction Rebellion' (XR), whose tactics challenge the status quo. Given XRs calls for government mitigation of climate change, their claims are deemed 'radical' which is fitting for the protest paradigm to be applied to their corresponding coverage (see Amenta et al., 2012; Benford & Snow, 2000; Rohlinger, 2002). It is within this context the protest paradigm constitutes a news frame. Thus, the current study adopts the protest-paradigm as a framing tool, conceptualising 'high' and 'low' intensely framed articles based on how much they adhere to the protest paradigm. This paradigm sets the parameters of acceptable public discourse in the context of collective action and social movements, by determining what becomes public discourse (Lee et al, 2008; Domke et al., 2000; Benford & Snow, 2000; Druckman & Holmes, 2004; Kim et al., 2005; Entman 2007; Entman et al., 2009). The point stands that negative press patterns are applied to the coverage of social protests, and this heavily impacts public support of an issue, a finding robust within the literature.

Chapter 2: Framing effects and climate change

Closely linked to the concept of the 'protest paradigm' is the phenomenon of 'framing', which presents "a central organizational idea", and has been treated as an analytical framework for uncovering "socially constructed schemas" that give meaning to problems or events (Gamson & Modogliani, 1989). Framing refers to the process by which people form a specific concept of a problem (or readjust their thinking about a problem) (Chong & Druckman, 2007), because of journalistic reporting techniques that highlight certain aspects of a story offering the recipient an interpretation of the issue (Vliegenthart, 2012; Scheufele, 2004). As defined by Entman "to frame is to select some aspects of a perceived reality and make them more <u>salient</u> in a communicating context, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described".

(Entman, 1993 p. 52). Furthermore, if the protest paradigm tells the public *what* to think regarding a protest, the use of framing guides the public on *how* to think by leaving out segments of an issue (Carter, 2013). Both elements are used in news-reporting to further delegitimise collective action that challenges the status quo.

The conventional expectancy-value model offers further insight into how framing effects works (see Ajzen & Fishbein, 1980; Nelson et al., 1997). According to this model, an individual's attitude toward an issue reflects the weighted sum of a set of beliefs about that issue; the overall attitude would depend on which dimension is more salient or has a larger weight (see Nelson & Oxley, 1999 for a more in-depth review). In other words, a framing effect occurs when a frame in communication (words, images, phrases, presentations) influences the salience of a given consideration (or thought), thereby influencing an individual's frame in thought (the aspects individuals deem relevant to understand a situation) (Gubitz et al 2018, chapter 3 (pp29-63); Scheufele, 1999; Druckman & Holmes, 2004). The bulk of communications literature has focused on the frames in communications of elites, and how they influence citizens' attitudes in the context of social movements (Entman 2006; Neuman et al., 1992,).

There are several standard framings used by journalists when writing about protests, such as confrontation, spectacle, riots, rights and so on (see Mcleod & Hertog 1992; Wasow, 2020; Boykoff, 2006; Druckman & Nelson, 2003; Nelson & Wiley, 2001). Most of these framings serve to delegitimise protest and is used by elites who reinforce ideas that bolster the current "power structure", or put differently, the 'hegemonic principle' (Carragee, 1993; also see Gurevitch et al., 1982). Moreover, the voices in the media act as powerful gatekeepers for the success of social movements and collective action in effecting social change (McCurdy 2012; Smith et al., 2001). For instance, Mcleod & Detenber (1999) found that framing an anarchist protest in terms of support for the status quo led to less support and identification with the said protestors, compared to frames which upheld the status quo less. Similar effects were found by Kilgo and Moraou (2021) whose focus on civil rights movement 'Black Lives Matter' concluded that a legitimising debate frame increased support and identification with protestors and increased criticism of the police,

relative to "riot" and "confrontation" frames which had the opposite effect. These examples demonstrate the inimical impact framing may have on mobilising collective action, and its effect is robust within the literature whether it concerns policies on abortion (McCaffrey & Keys, 2000) gun control (Haider-Markel & Joslyn, 2001), climate change (Spence and Pidgeon, 2010), gay rights (Tadlock et al., 2008; Brewer, 2003; Gross, 2001), welfare (Sniderman & Theriault, 2018) and so on. All of which demonstrates the scope of the framing literature and the application of framing in everyday discourse (Domke et al., 1999; Price et al., 1997; Shah et al., 1996; Shah et al., 2004; Cho & Sands, 2011).

Provided this knowledge, its plausible to assume that the framing of climate change mitigation group, XR, will have important implications for attitudes regarding mitigation agendas. There are a variety of different frames used when climate change is discussed, all of which serve to achieve different outcomes (see Levin et al., 1998). For instance, Spence and Pidgeon (2010) found that 'gain' frames (which highlight positive consequences of undertaking a specific behaviour) increased positive attitudes towards climate change mitigation, and the perceived severity of climate change impacts, compared to 'loss' frames (which emphasise the negative consequences or losses of not partaking a particular action). Additionally, they found that attitudes towards climate change mitigation were more positive when participants were asked to consider 'social' rather than 'personal' aspects of climate change (Spence & Pidgeon, 2010). Similarly, one study found that framing climate change as a 'public-health issue' warranted more attention and support for mitigative action (Weathers and Kendall, 2016), compared to the common 'environmentalist' framing that is typically assigned to it (Corbett & Durfee., 2004; Rademaekers & Johnson-Sheeehan, 2014; Nisbet & Newman, 2015). This 'gain vs loss' frame is the commonly adopted framing strategy for issues pertaining to climate change (Moser, 2010; Nisbet, 2009; Feinberg & Willer, 2011; Davis, 1995; De Vries et al., 2015), and it demonstrates how the issue of climate change has been subjected to framing, and that the wording assigned to the issue has important implications for support outcomes (also see Villar & Krosnick, 2011; Schuldt et al., 2017; Schudt et al., 2011).

Whilst there is substantial evidence of the framing effect on the mobilization of collective action, and on the issue of climate change, none of the social movements thus far concern climate change activists. To our knowledge, this is an area within the framing and collective action literature which remains underexplored. Additionally, there is a rich literature suggesting that the actions taken by protestors can impact public support for a given protest independent of the framing. For these reasons, considering the actions of the protesters alongside the framing is crucial for working towards a conclusive idea of how attitudes toward support for climate change mitigation is determined.

Chapter 3: Conceptualizing 'Extreme' protest action and its effect on protest support

The action taken by protestors posits an important role in understanding the strategic terrain social movements face (Lee, 2014). The collective action literature has typically categorised protest actions as either 'extreme' or 'moderate' to explore their impacts on public opinions of support. Extreme actions can be conceptualised as any action that is perceived as disruptive, harmful, or violent, with moderate protests being either virtually opposite, or less intense versions of these extreme protests used for comparison. For this reason, perceptions of a given protest may rely on the context in which the action occurs (Haines, 2013; Rai & Fiske, 2012; Ditto et al., 2011). Common examples of 'extreme' protest actions include blockading streets, closing highways, engaging in physical violence and so on. Whereas 'moderate' protests may refer to nonviolent protest such as peaceful vigils. This simple categorisation of protest actions is a useful tool for examining the impact protest actions may have on public support. Although the present study acknowledges that protest actions may be more complex to decipher than simply 'extreme' or 'moderate', this paper adopts these same categories for the stimuli to fit in with the well-established literature. Thus, our conceptualisation of an 'extreme' protest action is that it is observers' perceptions of extremity based on ratings of harmfulness, disruptiveness, violence, and extremity¹.

¹ Our conceptualisation of 'extremity' was determined by ratings of harmfulness, disruptiveness, violence, and extremity in a pilot study (see Methods section for more detail). We chose these ratings because previous research such as Feinberg et al., (2020) did not conceptualise a definition for what 'extremity' meant, instead they referred to a series of actions that will fall under the category 'extreme'.

It is widely argued within the collective-action literature that extreme actions reduce support for a given protest (see Feinberg et al., 2017, 2020; Gutting, 2020; Simpson et al., 2018, 2021), especially when paired with more moderate alternatives (Haines, 2013; Thomas & Louis, 2014). In line with the protestparadigm literature, extreme protest actions provide the spectacle/sensationalism which fits into the institutional logics of mainstream media (Hayward 2020; Almeida and Lichbach 2003; Arpan et al., 2006; Gitlin 2003; Shoemaker, 1984). Thus, these extreme actions are an effective way for social movements to gain widespread publicity and raise awareness about their cause through the press attention they attract (Hayward, 2020; Amenta et al., 2019; Amenta et al., 2017; Jasper 2004; Myers & Caniglia, 2004; Oliver & Maney, 2000; Sobieraj, 2010; Strawn, 2008). A recently published paper by Wasow (2020) supports this claim, by stating that social movements can capture public and press attention by engaging in street protestsa term they coined 'agenda seeding. This argument is grounded in a very thorough analysis of press coverage of civil rights protests which suggests that whilst protestors cannot influence whether they are supported or not in the press they can influence the valence of their coverage through the actions they take (Wasow, 2020). As a result, activists engage in a series of extravagant tactics to garner the attention of the media, which results in a sort of symbiotic relationship between the activists and the press; these actions may be deemed an effective means for applying direct social and financial pressure on an institution (Biggs & Andrews, 2015; Ingram et al., 2010; King & Soule, 2007; Luders, 2006). Alternatively, these actions may delegitimise the protest further, as the public are typically averse to extreme protest actions (Earl et al., 2004), and therefore support it less. Furthermore, activists confront a dilemma whenever they are faced with an injustice they wish to bring to light – a phenomenon Feinberg eloquently described as the 'activist's dilemma' (Feinberg et al., 2017; Feinberg et al., 2020). Activists can either act in an 'extreme' manner, which will guarantee media attention and increase awareness, but risk delegitimization via their unfavourable portrayal in the press. Or they can reduce this risk by adopting more 'moderate' tactics, but trade-off the potential media coverage.

This rich set of literature focusing on the action alone deviates from the logic provided by the framing theory, by arguing that the action can lead to the delegitimization of protestors independent of the framing, in turn reducing support for social movements which foster extreme or radical actions. Past

research has supported this notion, by reporting that violence leads to perceptions of protestors being unreasonable which further diminished support for a given social movement (Simpson et al., 2021). Similarly, Stephan and Chenoweth (2008) found in their analysis of more than 300 resistance campaigns against political regimes, that nonviolent protests were more effective at garnering both domestic and international support. This finding is robust within the literature (RezaeeDaryakenari, B., 2021; Stephan & Chenoweth 2008; Chenoweth & Stephan, 2011; Chenoweth & Schock, 2015; Wasow, 2016; Dunlop et al., 2021; Thomas & Louis, 2014). The implication is that public support for a movement decreases when the protestors of a given movement use violent tactics (Boyle et al., 2004; Wang & Piazza, 2016; Gutting, 2020), and relatively increases when the activists resort to more moderate tactics (Thomas & Louis, 2014; Haines, 2013; Stuart et al., 2018).

Scholars have offered explanations as to why extreme protests may be supported less by the public. A leading paper within this field, and perhaps the most influential for the current study, is that of Feinberg et al., (2020) which proposed a causal pathway to demonstrate how extreme protest actions reduce support for a movement. This pathway follows that an extreme protest action is perceived by the public as immoral, which decreases emotional connection to the movement and actors, which further decreases social identification with both the protestors and the movement's overarching cause, and this ultimately leads to decreased support/willingness to join the movement (See Feinberg et al., 2020, figure 1). This conclusion was reached by examining across the 6 separate studies ranging a series of social movements including civil-rights movements, gun-control, animal welfare and so on. Whilst this model is plausible, it suggests that an extreme protest action reduces support for the action and the cause in a uniform way. One can imagine a situation whereby the public are not supportive of the specific actions protestors have taken, yet they still support the cause the protestors stand for. The current study will aim to explore evidence for this effect by examining whether attitudes to the action are independent of attitudes to the cause. Perhaps Feinberg's study led support to this model because their methodology failed to separate the protestors from the cause; their series of questions forced participants to associate the support for the protestors with support for the cause by mentioning the protest group ("How much do you support FTV's cause (ending the use of

animal testing)?') instead of mentioning the aims of the given social movement ("how much do you support ending the use of animal testing" (from Feinberg et al., 2020, study 1). Building on this, the current study aims to make this distinction clear, by asking an additional series of questions solely related to XRs cause of governmental mitigation without the mention of the protestors.

Chapter 4: Pre-existing attitudes

Susceptibility to frames and support for social movements may be influenced by respondents preexisting attitudes to a given protest. Individuals utilise their knowledge when confronted with frames in communication in their daily lives (Druckman, 2009; Neuman et al., 1992), and scholars have suggested that pre-existing attitudes towards protest groups in general and knowledge of a specific group or issue often affect how people perceive protesters (McLeod & Detenber 1999). Thus, accounting for its influence in the current study is crucial to understanding how attitudes to climate change mitigation may be impacted. The following measures will be explored in the current experiment, however given that the evidence relating specifically to climate change mitigation is scarce, pre-existing attitudes predicting support will be treated as an exploratory research question.

Political orientation: Political partisanship has been claimed to influence attitudes towards protest. For instance, in a study consisting of Turkish residents, political orientation was deemed an important aspect of both support for protest and support for repression (Akkus et al., 2019), demonstrating the importance of political partisanship cross-nationally which is echoed throughout the literature (Trandis, 2000; Van der Meer et al., 2009). Similarly, there is evidence that individuals' political orientations are the strongest predictors of whether they support a government policy or not (Lau & Heldman, 2009), and this translates to whether they are influenced by framing which upholds the status quo (Noakes & Johnson, 2005; Lecheler & de Vreese, 2012). Given this knowledge, it is plausible to assume that political orientation may predict support for attitudes toward XRs protests. For instance, past research has indicated that more right-leaning individuals support governmental repression of collective action that challenges the status-quo, especially when the protest adopts extreme tactics (Kilgo & Mourao., 2021; Shultziner & Stukalin 2021; Madestam et al., 2013; Krosnick et al., 2000; Stecula & Merkley, 2019) and more left-leaning individuals have a

propensity to favour climate change mitigation activists, since they view protest as an act of democracy which aligns with the left-leaning ideology which favours collective expression (Gutting, 2019; Ziegler, 2017; Dietz et al., 2007; McRight, 2011; Drews, S., & Van den Bergh, J. C. 2016; Carrus et al., 2018). Similarly, research has demonstrated politically driven differences to the wording assigned to 'climate change' in discourse, with more liberal-left participants in favour of the phrase 'climate change', whereas the right prefers 'global warming' (Villar & Krosnick, 2011; Schuldt et al., 2011; Akerlof & Maibach, 2011). In sum, past research has evidenced political differences in the realm of social movements, and in particular climate change communication (see also Feldman, 2018; Hamilton, 2011; Kahan et al., 2012; Hart & Nisbet, 2012) with the public typically supporting protests that resonate with their political perspective (Campbell & Kay, 2014; Dixon et al., 2017). As a result, the present study utilizes a political orientation measure to account for its potential influence on attitudes to support for protests, using climate change mitigation activists, XR, as a case-study.

Attitudes to Protest: Attitudes refer to behaviour-related evaluative associations or tendencies stored in memory (Scherer, 2005). General attitudes towards protests have been documented in the framing and collective action literature as a predictor of support for specific protests (Kilgo & Mourão., 2021, 2019; Van Hauwaert & Van Kessel, 2018). Arpan et al., (2006) demonstrates this point, reporting that respondents with positive prior attitudes towards protests in general were more likely to support the protest, rate it as more effective, and identify with the protestors in the story respective to respondents who had negative prior attitudes. This finding is consistent within the literature (Kilgo & Mouraou, 2021, 2019; Peacock & Biernat, 2021; Arpan et al., 2006; Sweetman et al., 2019) and it suggests that pre-existing attitudes toward protest may be stronger predictors of support for a given protest than the media coverage. The authors also suggest that such attitudes may exacerbate or mitigate the protest paradigm (Arpan et al., 2006). In relation to XR and climate change mitigation, one may assume that individuals who support protests more generally are more likely to support XR and their protests, independent of the media coverage. This is because these individuals supposedly value protests as an act of democracy, and typically these individuals are more aligned with a left-liberal political orientation (Gutting, 2020). Furthermore, incorporating prior attitudes to protests in general were general seems appropriate, thus the present study

measures general attitudes to protests. To our knowledge, past research has not investigated how general attitudes to protest impact support for climate change activists, thus this study will be the first to examine this in relation to XR.

Climate change concern and belief: Identifying with activists and their cause is an important precursor of collective action mobilisation (Van Zomeren et al., 2008a, 2008b; Sniderman et al., 2004). If the cause of a protest resonates with the public then this protest is more likely to be supported by these members of the public and can often drive behavioural action (Jasper 1998; Kelloway et al., 2007). This claim has roots in evolutionary psychology, with social identification leading to ingroup vs outgroup behaviour (Taifel & Turner 1979). This pattern can be perceived in the context of social movements, with individuals supporting movements that resonate with their own beliefs, political orientations and so on, and this can explain why the public who are more in favour of the status quo will oppose protests that challenge it (Jost et al., 2017; Brewer, 2001). Additionally, those who strongly identify with a group's message may even view the 'extreme' actions as a necessary means to achieve social justice (Mullen et al., 1985; Ross et al., 1977). Thus, it is reasonable to assume one's knowledge and stance on climate change, namely their belief and concern, may play a vital role in how they respond to protest groups such as XR who advocate climate change mitigation, since it has been reported to impact an individual's intentions to take correct action (Bord et al., 2000; Broomell et al., 2015; Akerlof & Maibach, 2011; Kellstedt, Zahran, & Vedlitz, 2008; Heath and Gifford 2006; O'Connor et al., , 2002). Additionally, past research has stated that the more knowledgeable individuals are about an issue, the less susceptible they are to the effects of framing for a variety of issues (Druckman & Nelson 2003& Druckman, 2009; Shan et al., 2020; Brewer 2003). In the context of the current experiment, this suggests that individuals who are more concerned and have a greater belief in climate change will be less influenced by the protest paradigm framing applied to it. To account for this, climate change concern and belief will be measured and accounted for in the present experiment to explore how it may influence outcomes of support for protests concerning climate change mitigation.

Chapter 5: The Current Study

Given the robust findings of the framing on a variety of social protests as well as the literature suggesting the importance of protesters actions on outcomes of support, the present study unites these two literatures since this has not been done before. By doing so, the present study deviates from traditional media framing literature and nuances the realm of collective action to provide a more conclusive argument as to how attitudes to protest may be shaped by both the frame and action, as well as pre-existing attitudes. The current study will present participants with articles portraying either an 'extreme' or 'moderate' protest action, framed in a highly intense or less intense way and ask questions to measure different aspects of support for the protest. This knowledge will contribute to our understanding of collective action mobilisation and what may inhibit it, which will provide a commentary on the polarization regarding climate change mitigation agendas. We expect the frame and action will have linear effects on attitudes to protest in that, the more extreme action and the more intense frame will reduce support for the various measures of support. However, the interaction between the frame and action has not been done before, thus we propose the following hypothesis:

H1: There will be a main effect of frame, in that the high-intensity frame will reduce support for a) the action, b) the protestors, c) the cause, d) social identification with protestors, e) increase perceived immorality, f) reduce willingness to join, and g) reduce mitigation support.

H2: There will be a main effect of action, in that the extreme action will reduce support for a) the action,b) the protestors, c) the cause, d) social identification with protestors, e) increase perceived immorality,f) reduce willingness to join, and g) reduce mitigation support.

RQ1: Does the magnitude of the framing effect vary according to the extremity of the action?

Although these hypotheses predict uniform linear relationships, the extreme action may not necessarily impact attitudes of support in a uniform way. In that, participants may not support the protestor's action, but they may still support the protest's cause. Thus, we propose the following research question:

RQ2: Is support for the protestors intrinsically linked to support for the cause?

In addition, we investigated the influence of pre-existing attitudes to protestors in general, the protest's cause and political orientation on attitudes to support. However, given that past research has not investigated the climate change mitigation groups, such as XR, we propose the final research question.

RQ3: How are attitudes to support outcomes influenced by pre-existing beliefs?

Methods

1. Data exclusion:

Data exclusion consisted of removing participants if they indicated less than sufficient English proficiency indicated by a score less than three (1-poor, 2-fair, 3-good, 4-very good, 5-excellent). Additionally, participants who failed the attention-check were excluded as they did not encode the information that is crucial to the experimental manipulation. A total of 80 responses were excluded from the original dataset.

1.1.Attention Checks

The attention-check question consisted of six multiple choice items which described the action (either moderate or extreme) and implied the framing (either high intensity or low intensity) of each of the articles in a few short sentences to encapsulate the gist of the article participants read (see Appendix A for the exact wording of each attention-check and the correct article variation it is describing). Of the six options, there was only one correct answer for each of the four article variations (high intensity frame- extreme action; high intensity frame- moderate action; low intensity frame- extreme action; low intensity frame- moderate

action), meaning that of the six possible options there were four possible 'correct' answers depending on the article participants were assigned to (see stimuli section). The correct attention-check for the extreme action condition framed in a high-intensity protest paradigm framing mentioned the action (blockade of the printing press) and implied the high-intensity framing through mentioning the 'huge police presence' and using marginalising jargon such as 'disruption' which was mentioned in the article (see Appendix A). This differed from the attention-check describing the article for the extreme action framed in a low-intensity way, which instead focused on the cause of the protest ("medias failure to report on the climate emergency") and gave the protestors a voice to legitimise them. Similarly, the correct attention-check for the article describing the gist of the moderate action (peaceful vigil) framed in a highly intense way mentioned the police presence, and the invocation of public opinion using the comments of passers-by which disapproved of the protestors. Comparatively, the correct attention-check for the same moderate action framed in a lowintensity way focused on the peaceful actions of the participants ("lit candles, sang songs") and mentioned passers-by empathising with the protestors. The two incorrect responses, regardless of which article participants were assigned, mentioned figures that were not mentioned in any of the articles (i.e. Priti Patel) and gave reasons for the protest which were not mentioned or implied in either of the articles ("...revenge for a series of negative articles about XR").

All attention-checks adhered closely to the protest-paradigm characteristics laid out by Mcleod & Hertog (1999), thus we made a conscious effort to describe the action, and imply the narrative structure, invocation of public opinion, reliance on official sources and other methods of delegitimization embedded within each article as this is essentially what separates the high intensity and low intensity framing of each extreme or moderate action. The attention-checks were tested and revised after an initial pilot, thus the attention-checks in the main study were versions that we believe described each article the best and differentiated between each article variation in a subtle enough way to require participants' full focus on the article. Participants were made aware that they need to encode the article carefully as they will be asked about it in the study just before they were assigned to each experimental condition.

2. Participants

After data exclusion, a total of 257 UK volunteers (79 male; 174 females; 3 non-binaries; and 1 prefer not to say) aged between 18-69 (M=32.77, SD=12.11) were recruited from the online platform 'prolific' to participate in a 'public opinions survey' set up on 'Qualtrics', in exchange for a sum of money (£8 per hour). This title was chosen to keep the study aims and topic area confidential to attract a range of responses. All participants provided informed consent and confidentiality was ensured by only using participants prolific ID for data analysis. All participants were given the right-to-withdraw at any moment in the study, without providing a reason why.

3. Design and Stimuli

The current study adopted a between-subjects design, whereby the participants were randomly assigned to one of four article variations via the randomizer tool in Qualtrics, to examine the influence of the framing and action effect of each article alone. The articles either described a moderate protest action framed in a low intensity way (moderate action-low intensity condition), and a high intensity way (moderate action-high intensity condition), or an extreme protest action framed in a low intensity way (extreme action-low intensity condition), and a high intensity way (extreme action-low intensity condition), and a high intensity way (extreme action-low intensity condition), and a high intensity way (extreme action-low intensity condition), and a high intensity way (extreme action-ligh intensity condition). Each article was approximately 430 words in length, and the actions (extreme or moderate) described were based on true events that took place within the UK as part of XR's rebellion against the lack of climate change coverage and governmental mitigation. The frame (high and low intensity) and action (moderate and extreme) acted as two separate predictors of support outcomes, and each had two levels. The pre-existing attitudes acted as further predictors (explained below under the subheading 'independent predictors'). There were 7 criterion variables which measured support outcomes regarding the action, protestors, cause, willingness to join, social identification with protestors, ratings of immorality, and mitigation support. The study's protocol was approved by the university of Bristol's Faculty of Life Science (116886).

3.1 Stimuli: Article variations

3.1a Extreme article stimuli (n=128)

Extreme action:

The extreme action focused on XRs blockade of the printing press on the 5th of September, which caught public attention. The articles were developed based on the protest paradigm frame (laid out in Mcleod & Detenber's 1999 paper, developed from Mcleod & Hertog, 1992) and exemplars of news about XR in the mainstream media. Both extreme articles adopted the same narrative structure; however, prioritization of ecological validity meant that the overall details of each narrative were not identical (see appendix D for full articles).

Extreme action - High-intensity article (n=64): The high intensity frame (which is essentially the report from the Hertfordshire Mercury) adhered closely to the protest paradigm throughout. It emphasised a conflict narrative, in which police and protesters were cast as adversaries; it focused on crime, disruption and arrests; it described the action and its consequences, but not the issue; it incorporated quotes from official sources, but not from the activists; it invoked social norms to imply what most people would think about the actions of the "inconsiderate few". The image shows lots of police and few protesters. The article's title further fuelled the delegitimization associated with the protest paradigm "photos show huge police presence as protestors block off Hertfordshire printworks" with an image which depicted protestors tied to bamboo-structures, with a huge police presence. By adhering closely to the protest-paradigm, this article aimed to delegitimize the social movement. This article contained 428 words.

Extreme action- Low-intensity article (n=64): The low intensity frame was virtually the opposite of the high-intensity frame, in that it described the issue and provided quotes from XR and activists - allowing them to give their perspective to further legitimise the social movement; politicians were quoted explaining the context of the action and even approving ('Excellent work') whilst the police explained that peaceful protest is something they facilitate. The image was more neutral and may even be deemed empowering for supporters of the activists. The comments of passers-by were also added for the sake of legitimising them,

showing support for the protestors. The title was more descriptive, as opposed to suggestive "Extinction Rebellion protesters blockade Murdoch Printing sites". This article contained 437 words

3.1b Moderate article stimuli (n=129)

The moderate action:

The moderate action focused on XRs peaceful vigil outside NewsCorps at the mini-shard London on the 16th of October. This protest was legal, nonviolent, non-harmful, and not highly disruptive (possibly disruptive to people entering/exiting the building but no deliberate attempt to stop people's freedom of movement). These articles were developed from real-life news-reports, thus they followed the same narrative structure, although to maintain ecological validity there was some differences in the details between the high and low-intensity article (see appendix D for full articles).

Moderate- High-intensity article (n=64): This article adhered closely to the protest paradigm by emphasising the conflict narrative, in which the police and protestors are cast as adversaries; it emphasized a huge police presence; protestors were described as being disruptive with their megaphones; there was a specific focus on the protestors actions as opposed to providing them with opportunity to voice their cause; the use of quotation marks were used to delegitimise the protest as "peaceful"; the use of public disapproval was embedded within, with quotes suggesting the public were disappointed with "the inconsiderate few". The image portrayed a man, in a 'ridiculous' costume and face paint, appearing like a nuisance to society which fits with the general perceptions in the media of climate activists being 'just a bunch of hippies waving banners' not to be taken seriously. This article contained 439 words.

Moderate- Low intensity article (n=65): emphasised the 'peaceful vigil' in the title and provided quotes from XR and activists to allow them to give their perspective on why they are protesting; there was mention of governmental officials supporting the protestors "they reflect what a desperate moment this is"; there was mention of the police, but without the mention of any arrests taking place; politicians and passers-by are quoted explaining the context (and even approving). The image depicted 'XRs red brigade' standing in

solidarity with the peaceful vigil, without the presence of police, banners, or any majorly disruptive depictions. This article contained 414 words.

Overall, the stimuli represented the well-established framing narratives of the protest paradigm developed by previous protest paradigm scholars (see McLeod, Detenber, Arpan, Kilgo), whereby the high-intensity framing aimed to delegitimise protestors, and the low intensity framing served to legitimise protestors. The image was used to further feed into the framing of the narrative as news articles in real-life would do so. To increase internal validity, the extremity of the articles and the framing were confirmed via a pilot study².

3.2 Measures

3.2a Independent predictors

In addition to the frame and action, models included a series of variables accounting for pre-existing attitudes about political leanings, climate change belief, climate change concern, and protests in general. All items were forced response, meaning that participants had to answer each question before progressing, and all pre-existing attitudes were measured before each participant was assigned to the stimuli manipulation (articles).

Political orientation (PO)

A two-item measure taken directly from Ecker et al., (2020) was used to assess participants political orientation. Respondents were asked "in politics people talk of 'Left' and 'Right' where you would you

² In a pilot study to test the extremity of the action (N=48) we compared our extreme and moderate stimuli concerning XRs protests actions on ratings of harmfulness, disruptive, extreme and violence (our conceptualisation of extremity). A within-subjects design was used whereby participants were presented two sentences, one which described the extreme protest action of the blockade, and one which described the moderate action of the peaceful vigil. The sentences were constructed carefully to eliminate the element of framing- as we wanted to measure perceptions of the action alone. The sentence describing the extreme action read "Between 80 and 100 protestors blockaded two UK printworks overnight, delaying the distribution of several major national newspapers. The protestors used vehicles and bamboo structures to block the road outside the printing works. One of their banners read: "5 crooks control our news."" The sentence describing the moderate action read "Activists held a peaceful vigil outside a news organisations headquarters in London. Protestors came together and sang and lit candles in remembrance. They held up banners which read "free press? Prove it!"." Then on a 5 point-scale (1=not at all - 5=very much) participants rated each action on how harmful, disruptive, violent, and extreme it was. The results showed that participants rated the extreme action as more disruptive, violent, harmful, and extreme than the moderate action, and this difference was statistically significant, confirming our manipulation.

place yourself' (range 0-10) with higher scores indicating a political leaning toward the far right. The second item asked on a 1–7-point scale "If given a choice between labour & conservative candidate, I will choose Conservative over Labour" with higher scores indicating a preference for conservatives. Both scores were combined to compute their overall mean score out of 10, with higher scores indicating a right-wing orientation (M=3.29, SD=2.39). ³

Climate change belief (CCB)

To measure climate change belief respondents were asked three questions taken directly from Ecker et al., (2020) on a five-point scale (1=strongly disagree, 2=somewhat disagree, 3=neither agree nor disagree, 4=somewhat agree, 5 strongly agree): "I believe climate always changes- and what we are experiencing is natural fluctuations (reverse coded); "Human Co2 emissions cause climate change"; "Humans are too insignificant to make an appreciable impact on global temperature (1-5) agree/disagree (reverse coded)". Given that items one and three were reverse coded we subtracted from 6 on these two items to reverse the scoring (so that scores of 5 now became 1, 4=2, 3=3, 2=4, 1=5). The scores were then combined to compute an overall mean score so that higher scores (out of 5) represent a strong belief in climate change (M=4.29, SD=.74).

Climate change concern (CCC)

To measure climate change concern, we used established measures from the Six Americas Super Short Survey ('SASSY') scale (Chryst et al., 2018). The items were "How important is the issue of climate change to you personally? (1-5) SASSY"; (1=extremely important, 5= not at all important). How worried are you about climate change? (1-4) SASSY (1=very worried, 4= not at all worried). How much do you think Climate change will harm you personally? (1-5) SASSY (1=a great deal, 5= don't know). How much do you think Climate change will harm future generations of people (1-5) SASSY (1=a great deal, 5= don't know).

³To work out the mean of political orientation measure on a scale of 1-10, the second political orientation item (PO2) had to be rescaled. Thus, the following equation was used: 5*(PO1-1+10*((PO2-1)/6)). Note: PO1 refers to the first political orientation item scores; PO2 is the second political orientation item; and the asterisk "*" represents multiplication. This rescaled the second item of the multi-item criterion variable 'political orientation' so that the mean score for PO was out of 10.

Scores were combined to create an overall mean score out of five. To do so the second item was rescaled so that the scores for this item were converted from a four-point scale to a five-point scale (the converted scores were 1=1, 2=2.33, 3=3.66, 4=5). This new converted score (on a five-point scale) was added to the other items in the CCC measure and divided by four (the number of items in the criterion) to compute a mean score. Higher scores (out of five) indicated stronger concern of climate change (M=3.96, SD=.76).

Attitudes to Protest (AP)

Participants were asked the same item that Kilgo & Mourao (2021) used to measure their attitude to protest. The item was measured on a 1-7 (unsympathetic-sympathetic) point scale and asked, "How sympathetic are you towards protests in general?" with higher scores indicating that participants are more sympathetic/supportive of protests (M=5.09, SD=1.46).

3.2b Criterion Variables

Social identification with protestors

Respondents were asked the same two-item measure from Feinberg et al., (2020) (study three) since social identification is typically thought of a combination of feeling similarity and overlapping identity with others. On a five-point scale (1=not at all, 2=a little, 3=a moderate amount, 4=a lot, 5=a great deal), participants answered the following: "How similar do you feel to these activists?" and "How much do you identify with these activists?". Higher scores indicated greater social identity (M=2.23, SD=1.11).

Support for action

Respondents were asked on a five-point scale "How much do you agree with the action taken by activists described in the news report" (developed from Feinberg et al., 2020). Higher scores indicated greater support for action (M=2.80, SD=1.29).

Support for protestors

Developed from Feinberg, respondents were asked on a five-point scale "how much do you support the activists who carried out this action?" (1=not at all, 2=a little, 3=a moderate amount, 4=a lot, 5=a great deal). Higher scores indicated greater support for protestors (M=2.78, SD=1.26).

Support for cause

Adapted from Feinberg et al., (2020), respondents were asked on five-point scale "Overall, how much do you support XRs cause (reducing rate of climate change through calling on government to enact mitigative measures)?" (1=not at all, 2=a little, 3=a moderate amount, 4=a lot, 5=a great deal). Higher scores indicated greater support for the cause (M=3.49, SD=1.24).

Willingness to Join

Respondents were asked on a seven-point scale (1=Very Unlikely, 2=Unlikely, 3=somewhat unlikely, 4=neither likely nor unlikely, 5=somewhat likely, 6=likely, 7=very likely) "If XR held an event in your city/town, how likely is it that you would attend?" and "If XR were to sponsor a petition, how likely is it that you would attend?" and "If XR were to sponsor a petition, how likely is it that you would sign it?". Higher responses indicated a greater willingness to join (M=3.66, SD=1.65).

Perceptions of Immorality

Adapted from Feinberg et al., 2020, respondents were asked on a seven-point scale "to what extent do you agree with this statement "The protesters' behavior is immoral". (1-strongly disagree, 2=disagree, 3=somewhat disagree, 4=neither agree nor disagree, 5=somewhat agree, 6=agree, 7-strongly agree). Higher responses indicated greater perceived immorality (M=2.63, SD=1.56).

Mitigation Support

Building on Feinberg's paper, we asked participants about their support for XRs cause independent of the protestors. There were three sets of questions. Firstly, we asked participants on a 0-10-point scale five questions, namely: "How much should UK do to reduce effects of CC" (0=nothing; 10=a great deal); "To what extent do you support calls for climate action?" (0=don't support; 10= great support); "How supportive would you be of a levy on industries that contribute to climate change?" (0=don't support; 10=great

support); "How quickly should the UK move away from fossil fuels like petroleum, natural gas, and coal towards renewable energy sources like wind, hydro, and solar?" (0= not quickly; 10=very quickly); "How accepting would you be of lifestyle changes in order to transition to a more carbon-neutral society?" (0=not accepting; 10=very accepting). We also asked, "On a scale from 0-100% how much more would you be willing to spend on fossil fuels in order to mitigate effects of climate change?" (0=not willing at all; 100=extremely willing). Finally, on a five-point scale we asked, "Do you agree that the government should take more action towards reducing climate change?" (1= extremely disagree, 5=extremely agree). All scores were combined and re-scaled to a 0–10-point scale to provide an overall mean score⁴, with higher scores indicating greater support for mitigation (M=7.63, SD=1.87).

4. Procedure

The online experiment was set up on Qualtrics and advertised to participants on Prolific.

Participants were provided with an information sheet (see appendix B) detailing the requirements of the study, and what would be expected of them. The present study ensured to not give away the aims of the study at the beginning, as a full debrief (see Appendix C) was provided at the end after completion of the study.

Firstly, participants were asked about their pre-existing attitudes, such as their political orientation, climate change belief, climate change concern, and attitudes to protests via a questionnaire before becoming subjected to the manipulation of IV. These were measured at the baseline as they acted as our predictors, so we could examine their influence on the dependant variables without the potential influence of the manipulation.

Then, participants were randomly assigned to one of four conditions which they were told to consider carefully as they will be asked about it.

⁴ The equation used to rescale and measure the mean of the MS measure out of 10 was:

^{(1/7)*(}MS.1_1+MS.1_2+MS.1_3+MS.1_4+MS.1_5 + MS6_1/10 + 10 * (MS7-1)/4. Note: MS1 refers to the first set of MS questions which had five items (i.e., MS1_1; MS1_2; MS1_3; MS1_4; MS1_5). MS6 refers to the second MS question which had one item which is on a scale of 0-100%. Thus, dividing this item by 10 rescales it to a 10-point scale. MS7 refers to the final MS question which has one item, and this is on a scale of 1-5, so 10 times (indicated by the asterisk "*") item 7 (MS7) minus 1, added together with all the other items, and then divided by 4 then multiplying the whole equation by 1/7 gave us the mean for the MS measure rescaled to a 10-point scale.

Post manipulation, participants were asked questions about how much they identified with the protestors, how much they supported the action, the protestors, the cause, how immoral they thought the action was, how willing they were to join the movements, and their support for mitigation measures.

Finally, participants were required to answer the attention-check question, indicating which of the statements best summarised the gist of the article manipulation they were subjected to. Wrong answers led to exclusion as participants did not encode vital information relating to the manipulation.

Testing lasted approximately six to ten minutes, and participants received a debrief form after completion, with contact details providing them the opportunity to ask questions before signing the final consent form.

Results

Data analysis

To test the hypotheses and address the research questions, the current study used a standard multiple linear regression in SPSS. Prior to running the model new variables were computed on SPSS to create interaction variables that represented each of the individual predictors and their interaction with the frame and the action. Additionally, each of the predictor variables were mean centred by subtracting the mean scores of each variable, to reduce multicollinearity in the regression model (for a review of this debate see lacobucci et al., (2016)). These newly computed variables, with their means centred, were used for the analysis. Assumption checks of the regression demonstrated that the data was a well-fit and there were no major problems such that none of the predictors correlated at more than the standard cut-off (r=.8), thus no variables were taken out of the models.

A total of seven standard multiple regressions were conducted for each of the criterion variables. The model consisted of 15 predictors in total, namely the frame, action and their interaction (Frame*Action), and the pre-existing attitudes (AP, PO, CCB, CCC) and their interaction with the frame (AP*Frame, PO*Frame, CCB*Frame, and the action (AP*Action, PO*Action, CCB*Action, CCC*Action). These predictors were entered simultaneously into the regression equation to predict the different criterions. The results will be reported separately for each of the separate criterions for ease of readability, and only the

frame, action, and the significant predictors (95% confidence interval) of each criterion will be mentioned, leaving all unmentioned predictors to be interpreted as not significant.

Support for the action

When the 15 predictors were entered simultaneously into the model to predict its variance on support for action, a significant model emerged F(15, 241)=12.977, p<.001, which explained 41.2% of the variance $(R^2 = .447 R^2_{Adjusted} = .412)$. Looking at the unique individual predictors (table 1), the results show that five predictors significantly predict support for the action. Table 1 gives information about the significant regression coefficients for the predictor variables that entered the model. Frame and Action were significant predictors, with a negative relationship to support for action, meaning that as the frame and action increased by one unit (from low intensity framing to high intensity, and from moderate action to extreme action) the support for action decreased by the corresponding beta value. Supporting the hypothesis 1(a) and 2(a). The interaction between frame and action was also significant, in that when a low-intensity framing was used there was a large effect of action extremity, with less support for more extreme actions than the moderate action. By contrast, when a high-intensity framing was used there was no effect of action extremity, with similarly low levels of support for both moderate and extreme actions (see figure 1). Attitudes to protest was also a significant predictor, with a positive relationship to the criterion 'Support for Action', suggesting that as participants' attitude to protest increased (those more supportive of protests) then the support for the action will increase. Whereas political orientation had a significant negative relationship, meaning that as participants' political orientation increased (from left-wing to more right-wing) their support for the action decreased.

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	852	.124	332	-6.899	<.001
Action	358	.124	139	-2.890	.004

Table 1. The unstandardised and standardised regression coefficients for the significant predictors of Support for Action

Frame*Action	.696	.248	.136	2.806	.005
Attitudes to Protest	.292	.055	.331	5.356	<.001
Political orientation	075	.034	138	-2.195	.029

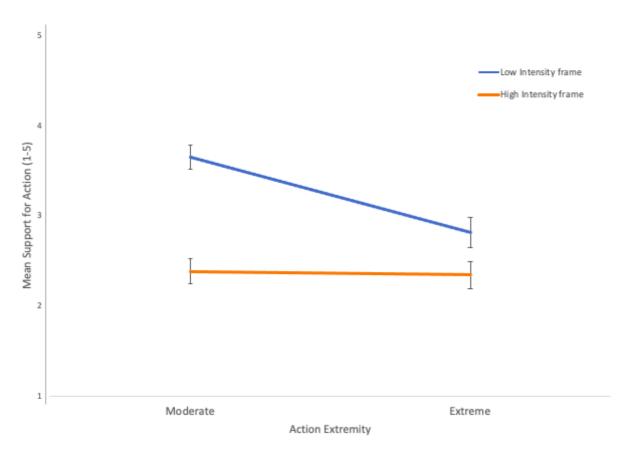


Figure 1. Line graph showing the statistically significant interaction between the frame and the action for measures of support for the action. The error bars reflect the standard error of the mean.

Support for Protest

It was found that the predictors significantly explain 45% of the variance ($R^2 = .482$, $R^2_{Adjusted} = .450$) F(15, 241)=14.951, p<.001. The analysis showed that support for protestors were significantly predicted by 5 predictors (table 2). Frame and action both appeared to have a significant negative relationship to support for protestors, meaning that the extreme action and the high-intensity frame garnered less support for the protest, independent of one another (since there was no significant interaction between these two) further supporting the hypotheses h1(b) and h2(b). The interaction between political orientation and action appeared significant also, with a negative relationship, suggesting that as political orientation increased (from left to right-wing) there was a greater action effect. In that those who identify as left-wing had similar responses on their support for the protest regardless of whether the action was moderate or extreme, whereas those who identify more as politically right-wing the action mattered more, with the extreme action being supported significantly less than the moderate action. Additionally, attitudes to protest and climate-change concern were significant predictors, both with positive relationships to support for protest. Both findings suggest that as participants support the act of general protests more and have a greater concern for climate-change, then ratings on support for protests increased by the corresponding beta values.

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	788	.117	314	-6.734	<.001
Action	241	.117	096	-2.055	.041
Attitudes to Protest	.351	.052	.406	6.788	<.001
Climate Concern	.275	.113	.166	2.425	.016
Po*Action	140	.065	133	-2.174	.031

Table 2. The unstandardised and standardised regression coefficients for the significant predictors of Support for Protest

Support for the cause

A significant model emerged for support for cause F(15, 241) = 14.199, p < .001), with the predictors explaining 51.8% of the variance ($R^2 = .546$, $R^2_{Adjusted} = .518$) (see Table 3). The frame appeared as a significant predictor, with the negative relationship indicating that the more intense the framing (high intensity) the less support for the cause supporting the hypothesis 1(c). The action did not yield a significant effect, suggesting that there is not enough evidence to suggest that the action impacts participants ratings of support for the cause (climate change mitigation), thus hypothesis 2(c) was not supported. Attitudes to protest and climate-change concern were significant predictors, with a positive relationship, meaning that as attitudes to protest increased (to more supportive) and concern for climate changed increased, then support for the cause also increased by the corresponding beta-value. Political orientation was a significant predictor of support for cause, with a negative relationship, suggesting that the more right-wing political orientation, the less support for cause. There were also two significant two-way interactions between the action and political orientation and the action and attitudes to protest. The former interaction revealed that there was a large effect of action when participants were leaning more to the political right, with more extreme actions being supported statistically significantly less than the moderate action. Whereas, for those who were more left-wing the action did not matter too much and support for cause was similar for both the moderate and extreme action. The latter interaction demonstrated that there was a greater action effect when pre-existing attitudes to protests decreased, with more extreme protest being supported significantly less than the moderate protest. Whereas, when attitudes to protest increased there was no effect of action, with both moderate and extreme actions being supported relatively similarly.

Table 3. The unstandardised and standardised regression coefficients for the significant predictors of Support for Cause

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	418	.107	170	-3.893	<.001
Action	-106	.108	043	989	.324
Attitudes to Protest	.298	.047	.352	6.290	<.001
Political Orientation	072	.030	140	-2.452	.015
Climate Concern	.527	.104	.324	5.071	<.001
PO*Action	127	.059	123	-2.139	.033
AP*Action	248	.095	146	-2.606	.010

Social identification with Protestors (SIP)

A significant model emerged F(15, 241)=15.400, p<.001), with the predictors (see table 4) explaining 45.8% of the variance ($R^2 = .489 R^2_{Adjusted} = .458$). The analysis revealed that the frame was a significant predictor, with a negative relationship, indicating that the more intense the framing (high intensity) the less social identification with protestors supporting the proposed hypothesis 1(d). Again, the action did not yield a significant effect, suggesting that there is not enough evidence to suggest that the action impacts participants social identification with the protestors thus hypothesis 2(d) was not supported. Attitudes to protest yielded a significant effect, with a positive relationship to SIP, meaning that as attitudes to protest increased the greater SIP. Climate change concern was also a significant predictor with a positive relationship, suggesting as participants concern for climate-change increased, they identified with the protestors more.

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	639	.101	292	-6.323	<.001
Action	122	.101	056	1.207	.228
Attitudes to Protest	.280	.045	.373	6.281	<.001
Climate Concern	.447	.098	.310	4.566	<.001

Table 4. Unstandardised and standardised regression coefficients for the significant predictors of Social Identification with Protestors

Perceived immorality

A significant model emerged, F(15, 241)=11.973, p<.001), with the predictors explaining 39.1% of the variance ($R^2 = .427 R^2_{Adjusted} = .391$) (see table 5). The frame and action were significant individual predictors, with a positive relationship to perceived immorality, in that the more intense the framing, and the more extreme the action, the greater perception of immorality. This supports the hypotheses h1(e), h2(e). The political orientation also emerged as a significant predictor with a positive relationship to perceived immorality, suggesting that as participants political orientation increased (to more right-wing), they perceive the protest as more immoral. Likewise, the attitudes to protest and climate-change belief both emerged as significant predictors, with negative relationships, suggesting that those with more supportive general attitudes to protest, and those who believed in climate change more, the protest was perceived as less immoral; in other words, the perceived immorality decreased (by the corresponding beta values for each one-unit increase).

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	.777	.153	.249	5.091	<.001
Action	.585	.153	.188	3.828	<.001
Attitudes to Protest	296	.067	276	-4.390	<.001
Political Orientation	.132	.042	.202	3.145	.002
Climate Belief	397	.148	188	-2.683	.008

Table 5. The unstandardised and standardised regression coefficients for the significant predicts of perceived immorality

Willingness to join

A significant model emerged F(15, 241)=15.612, p<.001), with the predictors explaining 46.1% of the variance ($R^2 = .493 R^2_{Adjusted} = .461$). The analysis revealed 3 significant predictors (see table 6). The frame was a significant predictor, with a negative relationship, indicating that the more intense the framing (high intensity) the participants felt less willingness to join the protest supporting hypothesis 1(f). Again, the action did not yield a significant effect, suggesting that there is not enough evidence to suggest that the action impacts participants' willingness to join thus hypothesis 2(f) was not supported. Attitudes to protest yielded a significant predictor, with a positive relationship, in that the greater attitude to protest, the more willing participants were to join the movement. Climate concern also emerged as a significant predictor, with a positive relationship implying that the greater concern for climate-change the greater participants' willingness to join (an increase by the corresponding beta value for each one unit of increase).

Table 6. The unstandardised and standardised coefficients of the significant predictors of Willingness to Join

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	659	.152	199	-4.327	<.001
Action	107	.153	032	700	.485
Attitudes to Protest	.538	.067	.474	8.006	<.001

Climate Concern .618 .147 .284 4.198 <.00	imate Concern
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Mitigation support

A significant model emerged F(15,241)=33.222, p<.001) with the predictors explaining 65.4% of variance ($R^2 = .674$, $R^2_{Adiusted} = .654$). There were six significant predictors (see table 7). The action appeared as a significant predictor, with a negative relationship, suggesting as the action extremity increased (from moderate to extreme) support for mitigative measures against climate-change decreased, which support hypothesis 2(g). However, the frame did not yield a significant main effect, in that there is not enough evidence to suggest that the frame impacted participants support for mitigation, so hypothesis 1(g) was not supported. Attitudes to protest, climate-change concern and climate-change belief were all significant predictors with positive relationships, suggesting that as each one increased, the support for mitigation also increased by the corresponding beta values. Climate change belief and concern had significant interactions with the frame. The interaction between climate-change belief and the frame suggests that those who indicate high levels of climate change belief, there was a close to no effect of frame, in that they support calls for mitigative measures regardless of the frame. Whereas those who have less belief in climate-change, there was a subtle framing effect, in that the high-intensity frame caused less support for mitigation than the less-intense framing (see figure 2). Likewise, the interaction between climate change concern and frame reported a similar pattern, in that there was a greater framing effect for those who are less concerned with climate change, with the high-intensity frame reducing support for mitigation compared to the low-intensity frame. Whereas those who are really concerned with climate change, support for mitigation was similar regardless of the frame; this effect was not driven by the frame.

Table 7. The unstandardised and standardised coefficients of the significant predictors of Mitigation Support.

Variable	Unstandardised	SE B	B standardised	t	р
	В				
Frame	118	.138	032	856	.393
Action	317	.138	085	-2.295	.023

Attitudes to Protest	.300	.061	.234	4.933	<.001
Climate Concern	.993	.133	.404	7.452	<.001
Climate Belief	.692	.134	.274	5.180	<.001
CCB*Frame	567	.268	112	-2.113	.036
CCC*Frame	.551	.265	.1112	2.082	.038

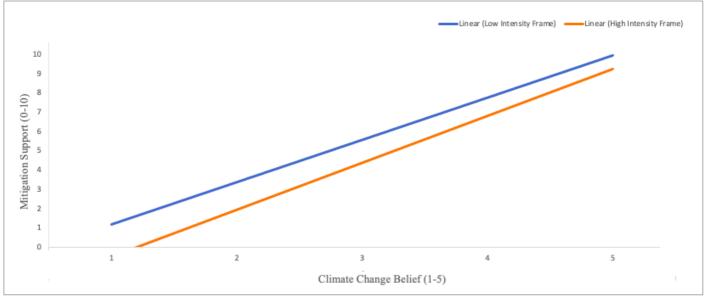


Figure 2. Line graph showing the statistically significant interaction between climate change belief and frame for the mitigation support.

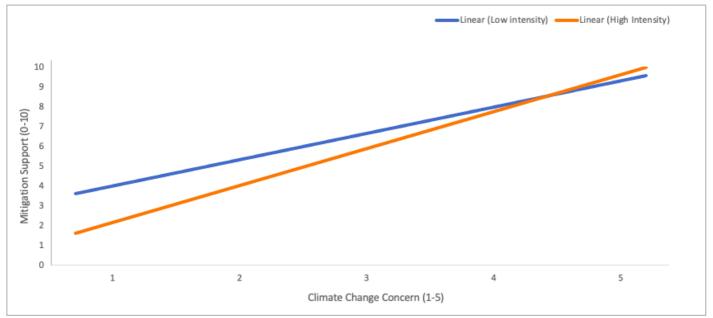


Figure 3. Line graph showing the statistically significant interaction between climate concern and the frame for mitigation support. As depicted in the graph, there is a cross-over interaction between the frame and climate change concern. Note: there is no main effect of frame.

Discussion

Despite scientists supporting claims that climate change is our impending doom, the media has consistently downplayed the severity of its impact via marginalisation of climate change mitigation groups such as XR.

The present study sought to advance our knowledge of how the media may contribute to public disapproval of social movements, as evidenced by the protest paradigm, by being one of the first to consider the framing as well as the protestors actions on attitudes to support for climate change mitigation. The present study found that high-intensity framing has an inimical impact on support for the action, the protestors, the cause, social identification, willingness to join and ratings of immorality which mostly supported our first hypothesis. However, the present study did not observe a main effect of frame on support for mitigation, suggesting that the frame may not influence attitudes towards mitigation support. However, the current paper discusses this result in reference to the methodological limitations of the current study below. Additionally, the magnitude of the framing effect appeared to vary as a function of the action for the one measure of support for the action, demonstrating the symbiotic relationship between the frame and action for measures of support for the action. The hypothesis that the extreme action will reduce support for the protest was partially supported also, replicating the findings of previous research. The measures where the action effect did not occur pointed to a dissociation between attitudes to support for the protestors and support for the cause. This was the second research question proposed and will be discussed further in the following discussion. Participants' pre-existing attitudes also played a role in predicting support outcomes for climate change mitigation, with pre-existing attitudes to protests in general appearing particularly important. These results will be discussed below in more depth and will point to their significance in the context of social movements and specifically climate change mitigation.

Framing discussed

The hypothesis that a high-intensity frame, characterised by a strict adherence to the protest paradigm, will lead to a reduction in attitudes to support was supported on the most part. The frame appeared as a significant predictor in almost all the measures, except mitigation support, suggesting that there was almost a uniform aversion to high-intensity frames. Namely, the current study found that the more intense frames statistically significantly reduced support for the action, the protesters, the cause, led to an increase in perceived immorality, less willingness to join, and less social-identification compared to the low-intensity frames. This finding aligns with the claims stated in previous literature which further demonstrates the robustness of the framing effect in driving opinion formation (see Mcleod & Detenber 1998; Kilgo &

Moraou, 2021; McCafferey & Keys, 2000; Haider-Markel & Joslyn, 2001; Spence and Pidgeon, 2010; Brewer, 2003; Sniderman & Theriault, 2018. Situated within this context, the present study supports the claim that framing is an important tool that may be utilised to garner protest support via influencing the way individuals should think of a particular issue, and the current study suggests that this framing effect exists on the most part in the context of support for the climate-change activists, XR (see also Moser, 2010; Nisbet, 2009; Feinberg & Willer, 2011; Davis, 1995; De Vries et al., 2015; Cho & sands, 2011).

Additionally, the magnitude of the framing effect appeared to vary as a function of the action extremity for the 'support for action' measure indicated by the statistically significant interaction between the frame and the action. This was the only measure where an interaction between the frame and action occurred. This finding demonstrated that regardless of the action, if a high intensity frame was applied to the news coverage, participants support for the action remained similarly low. Whereas, when a low-intensity framing was applied, there was a greater action effect, in that the moderate protest action garnered significantly more support than the extreme protest for the action. This suggests that whilst protestors need to be aware of the framing they may be subjected to, careful consideration of the action they take is warranted as this may further determine attitudes to support, specifically support for the action. If protesters opt with using extreme actions, they are less likely to gain support regardless of the framing applied to their coverage. Whereas if they opt with more moderate protest tactics, there is the possibility of garnering support for the action given that they are in an environment whereby the framing applied to their coverage is not too hostile or less intense. This further feeds into the logic provided by the framing literature, that frames such as the protest-paradigm can work to delegitimise protests and lead to a reduction in support (see Mcleod & Hertog 1992; Wasow, 2020; Boykoff, 2006; Nelson & Wiley, 2001). Whilst providing a nuance to this well-established literature by suggesting that the action may interact with framing effects, which previous research had not considered explicitly in their experimental design. Although this interaction was only present in the single measure of 'support for action', thus suggesting a small impact on overall support, this finding implies the importance of considering the action in cohesion with the frame on outcomes of support for the protest action. In the wider context of achieving climate-change mitigation this interaction is interesting. If protestors can accrue support for their action, which according to our study is by obtaining

low intensity framing in the media coverage and by adopting moderate actions, they will be met with less opposition, even if the public do not necessarily support the social movement per se. Moreover, the activists will be able to engage in similar (moderate) actions freely with the knowledge that their actions will not be opposed or influence attitudes against support for the protestors action. Eventually, this may lead to the government seriously considering the claims of the activists because they are not acting in ways which reduce support for their action, which is one possibility this interaction effect implies. However, there is the trade-off that moderate actions will not receive the press coverage required to pressure governments into acting (Wasow, 2020; Feinberg, 2017; 2020) pointing to an activist's dilemma (see 'practical implications'). Thus, activists should consider the action they take carefully (Wasow, 2020) (see next chapter).

However, the present study did not observe a main effect of frame for the 'mitigation support' item. This implies that there was no difference between the two groups in their attitudes for mitigation support based on the framing of the article they were assigned to, thus it does not support our prediction (h1g). This result may suggest that protestors may not need to be concerned about the way they are perceived in the media, because it does not impact attitudes towards climate change mitigation which is ultimately the goal of XR- to achieve governmental mitigation for matters pertaining to climate change. However, given the robust literature supporting framing effects on attitudes to support, alongside the findings of the current study which demonstrate a main effect of frame on the most part, one may be suspicious of accepting this conclusion. Specifically, the current study tested a lot of dependant variables, and a lot of p-values, which makes the present study susceptible to the problems associated with 'multiple testing' (discussed in the limitations section). Likewise, the 'mitigation support' criterion observed two significant interactions with the frame, although there is no main effect of frame (discussed more in the 'pre-existing attitudes' section). This further implies that methodological errors may account for this finding, thus further research is required to test whether these results are replicable (i.e., is there no overall main effect of frame, but a cross-over interaction between the frame and climate change concern and belief) or if it is in fact that the current study was laden with errors in relation to the amount of dependant variables and p-values being tested. It may be that there was a main effect of the frame for mitigation support, but our study lacked the power to demonstrate this (type 1 error), an issue which should be addressed in future research.

Taken together, the findings relating to the framing as well as the interaction with the action suggest that the voices in the media are indeed powerful gatekeepers. Given that less intense framings lead to an increase in support relative to more intense framings, protestors will benefit more from obtaining less intense media coverage, perhaps by seeking media attention through less intense tactics. However, provided the knowledge from the protest-paradigm it is unlikely that the coverage of protests will receive anything less than high-intensity coverage (see; Olien, et al., 1989; Lee, 2014; Carragee & Roefs, 2004; Gitlin, 2003). In the case that it might, journalists will still tend to emphasise an element of violence or implied violence (Boyle et al., 2004), which in turn leads to perceptions of immorality and classification of the protestors as deviants, thus reducing overall support due to the framing. These results imply an activist's dilemma (discussed in the practical implications section), and it would be interesting for future research to examine how long-lasting framing effects may be to fully grasp how they may manifest in influencing attitudes of support. In sum, if protests can secure legitimising coverage (less-intense frame) this can reduce negative attitudes regarding the protest and perhaps increase support.

Action discussed

The present study's findings also reported that the action taken by protestors was a significant predictor of support for a protest, in that the extreme protest action reduced support for the action, the protestors, mitigation, and increased perceptions of immorality. This finding is in line with the social-movement literature which has highlighted the public's preference for moderate protest, defined by non-violence, over extreme protests (Feinberg et al., 2020; Stephan & Chenoweth, 2008; Thomas & Louis, 2014; Wasow, 2017, 2020). Specifically, our results successfully replicated that of Feinberg et al's., (2020) on the most part, which demonstrated that extreme protest actions reduced support for a range of social movements. The model proposed in Feinberg et al., (2020) emphasised the role of immorality as a precursor of support and the present study replicated this same effect of action on the immorality measure suggesting that the extreme action impacts responses to the protest in a similar way. Furthermore, situated in the context of climate change mitigation, the tactics taken by protestors should be carefully considered as they have an appreciable impact on support for the social movement overall. The implication of the present study's

findings suggests that moderate protests are a more effective protest tactic in garnering support for the protest, as well as the activists, since these actions are deemed less immoral, thus they are supported more (see Feinberg et al., 2020; Haines, 2013; Stuart et al., 2018). Thus, for climate change protestors such as XR, raising awareness about a cause via extreme tactics which are characterised by disruption, violence, and harm leads to risk the movement's ability to win public sympathy and support.

Conversely, the action did not appear as a significant predictor in all the items measuring support. Namely, the 'support for cause' measure, 'social identification' with protesters, and 'willingness to join' were the items where the participants' ratings of support were not influenced by the action taken by the protestors. This finding deviates from the findings of Feinberg et al., (2020) outlined above which suggested a uniform effect of action. This speaks to the research question proposed in the present study: whether support for the protestors is intrinsically linked to support for the cause. The lack of an action extremity effect for the 'support for cause' item suggests some evidence that this may not be the case. In that, participants' attitudes towards the cause are not determined by the action taken by the protestors, which aligns with the logic provided by protesters who engage in extreme protest tactics. For instance, protesters often argue that they do not care if the actions they take are supported or not (see Ditto & Koleva, 2011; Feinberg & Willer, 2017) or whether the public view them as immoral, so long as they can understand the logic for the action and essentially support the cause. According to the present study findings this seems to be the case, since attitudes towards the cause was not influenced by the action whilst attitudes to support for the protestors was. This suggests that whilst the public may not support the protestors who engage in extreme tactics, this will not necessarily tarnish support for the overarching cause that they stand for. Moreover, this implies that perhaps support for the cause may be more complex than previously stated in models such as Feinberg et al., (2020). Additionally, it is worth noting that the 'mitigation support' item was used as an additional 'support for cause' measure, so one would expect them to be predicted similarly by the frame and action. Yet, the pattern of results suggests an inverse effect, with the 'mitigation support' measure accruing an action effect, but not a frame effect, whilst 'support for cause' accrued a framing effect, but not

an action effect. Furthermore, suggesting these effects are perhaps independent of each other and are measuring something different, and future research is encouraged to attempt to replicate these findings.

Until then, we steer clear from such conclusions as there are a few possibilities, other than the multiple-testing problem, which may explain these non-significant findings. Firstly, the framing articles either made explicit mention of the phrase 'support for cause' ("...wasn't helpful for their cause", "ruins the importance of the climate message", "...difficult for public to emphasise with their cause"), or the articles implied how the protestors' actions affect attitudes towards the cause. Thus, when participants were indicating their support for the cause, they were able to draw inferences from the article more readily and use this when indicating their own support; in other words, the wording of the frame which focused on how the action taken by protestors impacted the general public's attitudes and opinions towards the cause may have made these opinions adopted in the article more accessible to the participants. Hence the frame impacted results on this measure. Conversely, the stimuli articles did not explicitly mention 'mitigation support' or any of the actions required for mitigation outlined in the questionnaire. Thus, it is conceivable that participants relied on their own knowledge when answering this question, and the framing article was 'out of sight out of mind' in layman terms. This argument fits into the logic provided by the valueexpectancy model, because it suggests the possibility that the framed article (frame in communication) made attitudes towards the cause more salient in participants' minds (frame in thought), thus the frame appeared to significantly effect responses to the item 'Support for cause' but not 'mitigation support'. This is one possibility for this inverse effect, and the reason why the frame was not a significant predictor for the item 'mitigation support' (but it was for 'support for cause'), but the action was. Additionally, the stimuli in the present experiment were less intense than the stimuli Feinberg et al., (2020) used⁵, which may have further

⁵ We compared the extremity of the current study's stimuli to the stimuli in study 6 of Feinberg et al., 2020 paper (N=48). The action of the current study's stimuli (see footnote 2) and the action of Feinberg's study 6 stimuli were described in a few short sentences. Participants rated (on a 5point scale; 1= not at all, 5= very much) the descriptions on measures of harmfulness, disruptiveness, extremity, and violence. The current study's stimuli was compared to Feinberg's by a factorial 2x2 design, which indicated that whilst the current study's moderate action was rated similarly low on the above ratings, Feinberg's extreme action was rated as more extreme (M=3.60 vs M=2.65), violent (M=3.23 vs M=1.73) marginally more disruptive (M=4.42 vs M=4.04) and harmful (M=3.50 vs M=2.48) than our stimuli, and these differences was statistically significant. Note: the mean presented first is relating to Feinberg's study 6 stimuli, and the mean presented after is for the stimuli in the current study so that it follows this format (Feinberg's stimuli mean vs the current study stimuli mean).

contributed to the effects, or lack thereof for measures where the action did not obtain a main effect (see practical implications).

Future research should test this claim by having a highly controlled experiment, where the articles match word-for-word, and the phrase 'support for cause' is replaced by 'mitigation support'. This would allow researchers to examine whether a similar framing effect occurs for mitigation support as it did for support for cause in the current experiment, in which one can conclude whether it is indeed the wording of the framed articles that drives this effect, which may point to limitations regarding the experimental control in the current study. However, it is worth noting that with any framing study there is the potential trade-off between ecological validity and experimental control. Given that the present research questions were more concerned with identifying the effect of framing in news articles on attitudes to support and applying it to real-life, the current study opted for ecological validity, hence why the narratives in the stories were similar but not entirely matched. This preference for ecological validity meant that the present study was lacking in experimental control via the stimuli, and this may explain why some items were lacking a main effect of frame and or action. The benefits of this approach outweighed the limitations in the context of the present study aims, thus increasing the present study's validity, however future research is encouraged to experiment with a more experimental approach as mentioned above.

Despite the lack of the action extremity effect on some measures of support, the influence of the action should not be dismissed as the present study managed to replicate findings of previous literature for the most part. Additionally, looking closely at Feinberg et al's., (2020) findings for study 1 (see their table 1), the extremity effect does not appear for some of the items also, suggesting the effect is not necessarily monotonic. In this context, the present study findings are not concerning, and we conclude that extreme tactics will tarnish support for a movement.

Pre-existing attitudes

The influence of pre-existing attitudes on attitudes to support for the protest and climate mitigation was proposed as an exploratory research question. There were several variables that appeared as significant predictors of support (see results), however this discussion will focus on the variables that moderated the influence of action and frame, and the predictor 'attitudes to protest' which appeared particularly important.

The general trend of data where the pre-existing attitudes did display a statistically significant effect demonstrated that as participants concern and belief in climate change increased, as well as their support for attitudes to protests in general, then participants were more supportive of the protest on the corresponding measures of support. Whereas, for political orientation, those who identified more with the right-wing ideologies tend to support the protest less on the various measures of support. These findings are in line with past research which has demonstrated the importance of how increasing knowledge about a cause (O'Connor et al., 2002; Broomell et al., 2015; Akerlof & Maibach, 2011; Kellstedt et al., 2008; Heath and Gifford 2006), positive attitudes to protests in general (Kilgo & Mouraou 2021; Peacock & Biernat, 2021), and how individuals who are more politically oriented to the left (Lau & Heldman, 2009; Gutting, 2019; Lecheler & de Vreese, 2012; Feinberg et al., 2020; Kilgo & Mourao., 2021; Hamilton, 2011; Krosnick et al., 2000; O'Connor et al., 2002) will lead to an increase in support for a protest.

A few items obtained a significant interaction effect, for example the support for cause measure was impacted by two significant two-way interactions between the action and political orientation, and the action and attitudes to protest. These findings strengthened the arguments adopted in the literature, that participants who identify more on the 'right' are less supportive of extreme actions, thus they support the cause of protestors who act in extreme ways less (see Shultziner & Stukalin 2021; Feinberg et al., 2020; Lecheler & de Vreese, 2012). Likewise, for those who are more supportive of protests in general the action does not matter too much, as the participants will support the protest's cause regardless, which is the findings indicated in the current experiment for the 'support for cause' measure.

Additionally, the mitigation support item accrued two interesting interactions between the frame and climate change concern and climate change belief. Both interactions indicated that as climate change concern and belief increased the framing effect decreased, with both high and low intensity frames having little to no impact on support for mitigation. This implies that as participants knowledge on climate change

increases, the framing effect is minimised which is a claim supported in past literature (Druckman & Nelson, 2003; Shan et al., 2020; Druckman, 2009; Brewer 2003). This is useful for protestors to be aware of, specifically climate change mitigation protestors, as it suggests that mitigation agendas and protest tactics will be supported by those who have substantial knowledge of climate change regardless of how it is portrayed in the media. Thus, activists should aim to raise awareness of their cause and communicate their motivations in every protest opportunity, as this may lead to more awareness and therefore support because it is those who are not aware or concerned of the issues climate change presents that social movements concerning climate change need the support of, thus focusing on convincing these members of the public is worthwhile. With recent technological advances this has become possible, with social media allowing protest groups to communicate their message and raise awareness of their cause on a larger platform prior to the protest. This also has the added advantage of the activists controlling the framing and can be an effective tool for garnering protest support, and ultimately support for climate mitigation. Alternatively, it is appropriate to assume that those who are highly knowledgeable of issues relating to the climate are typically members or supporters of climate change mitigation protests. Given that the present study suggests that these individuals are supposedly not influenced by the frame in matters relating to mitigation support could imply that activists do not perceive an 'activist's dilemma'. This is because these activists and supporters of climate change mitigation view their cause with upmost importance, that the framing assigned to it does not influence their support for mitigation. Thus, these activists may expect members of the public to respond in the same way, and support mitigation (known as the false consensus effect; Mullen et al., 1985), dismissing the fact that the public may not be as concerned or knowledgeable on issues relating to the climate. This is one such possibility that the interaction between the frame and climate change concern and belief presents, and this presents serious implications for activists described in the next chapter (practical implications).

However, pre-existing attitudes did not appear to impact attitudes to support uniformly since items such as political orientation only impacted results for a few items, suggesting a small impact of political partisanship, whilst items such as attitudes to protests in general had a larger impact appearing in all the measures of support. The findings illustrated that as participants' general attitudes to protest increased, their support for the protest in all measures increased, and their ratings of perceived immorality decreased. This finding fits with past research that has claimed the importance of pre-existing attitudes to protests in general as a precursor for protest support (Kilgo & Mourao, 2021; Peacock & Biernat, 2021). This has important implications for protest support, and more specifically climate change mitigation. Firstly, it demonstrates that individuals who are generally more supportive of protests, perhaps because they deem them vital to a modern democracy, are more inclined to support calls for mitigation regardless of the frame or action of protestors and regardless of their knowledge of climate change. This effect also appeared to reduce perceptions of immorality, which Feinberg has highlighted leads to a reduction in support. Thus, understanding what leads to support for protests in general provides an important implication for protestors, because whilst it is unlikely that protestors can directly increase general attitudes to protest via a single act of protest, by understanding the aspects that may contribute to individuals overall support for protests in general may pave way for understanding which tactics are in fact more effective in garnering support. Scholars have highlighted the influence of political orientation on general support for protests (Gutting, 2019), suggesting that liberal individuals support protests more and that such attitudes to protests in general may be influenced by other pre-existing attitudes such as political orientation. Thus, future studies could examine other moderators not considered in the current experiment, such as emotion which past research has highlighted as particularly relevant in driving support for a protest and willingness to act (Iyer et al., 2007), to provide a more inclusive view of how individuals' responses to protests could be driven by their preexisting attitudes, which will contribute to our knowledge of collective action mobilisation, and what may inhibit it.

These findings point to the need to consider relevant, existing attitudes in future studies and suggest that effects of the protest paradigm might indeed be exacerbated or mitigated by such attitudes; Afterall, humans are not a blank canvas, but active agents in their learning and decision making (Neuman et al., 1992).

Practical implications

Overcoming the Activist's Dilemma and Media Framing Effects

Combining the present findings against the backdrop of the protest-paradigm literature, the present study suggests evidence of an activist's dilemma. The protest-paradigm literature has evidenced that journalistic reporting patterns are systemically in favour of reporting protests that adopt extreme tactics (Almeida and Lichbach 2003; Arpan et al., 2006; Gitlin 2003; Shoemaker,1984). Indeed, it is these actions that allow protests to gain widespread coverage (Amenta et al., 2017; Earl et al., 2004; Feinberg 2017, 2020) which is essential to pressuring institutions to enact change. However, as demonstrated by the present study and multiple studies within the social-movements literature, these 'extreme' actions are also supported less than more 'moderate' alternatives (Feinberg et al., 2020; Haines 2013; Chenoweth & Schock, 2015; Stephan & Chenoweth, 2008; RezaeeDaryakenari, B. 2021; Wasow, 2016; Dunlop et al., 2021). Thus, whilst the extreme action may increase the coverage of a protest, it risks the potential delegitimization of the protest via framing methods which reduce support for the protest overall (McCurdy 2012; Smith et al., 2001). Furthermore, the implication is that protestors will need to overcome this dilemma to obtain success for their movement, and careful consideration of the action appears to offer a potential solution.

Given the claim that extreme protest tactics are effective in ensuring widespread coverage, protestors would benefit from adopting a combination of extreme and moderate protest tactics. For instance, adopting extreme protest tactics at the early stages of the protest and then opting with more moderate tactics thereafter. The benefit of an extreme action early on is that it provides the mainstream coverage required to raise awareness about an issue, and keeps the public interested in the social movement even when the protest adopts more moderate tactics – which will typically not garner the press' attention (Hayward, 2020; Kilgo et al., 2019). Likewise, this shift to moderate tactics may portray the protestors as compliant individuals, and according to the present findings and the protest paradigm literature, this reduces the risk of delegitimization, thus it may increase overall support for the protest in the long run. This tactic is supported in the literature, as some scholars have suggested that as the "dust settles" from the extreme protest tactics, people become more invested in the cause (Hayward et a., 2020; Mourao et al, 2021). This implies that if protest groups such as XR reduce extreme actions to a minimum - by only using it at the early stages of the

protest - they may benefit in the long-term. The success of such a tactic can be seen in some of XRs tactics, with their disruption to the underground in October 2019 which caused widespread coverage because of the mass disruptions to members of the public during the busy rush-hour, compared with the more moderate tactics such as the peaceful vigil outside the mini shard which not only gained coverage in the press, but gained support from both members of parliament and the public in the press. This further suggests that protestors can shape what "extremity" means thus the "moderate" protest tactics may be considered subjectively; so long as the actions that follow are less intense than the initial extreme action, it may be sufficient for protestors to gain the sympathy and support they require which may lead to less opposition in the future.

Similarly, overcoming the framing effect is a vital next step for activists to secure movement support. Borrowing from the logic provided by the current findings, whereby the framing effect appeared to interact with knowledge and belief of climate change for measures of mitigation support, one may propose that the more knowledge one accrues about a cause may minimise the framing effect on related issues. Extrapolating this knowledge to framing more generally may provide a gateway to overcoming framing effects. For instance, if the public were made aware of the concept of 'framing', perhaps this may reduce the public's susceptibility to framing. This is promising next step since the application of framing on news coverage will remain; framing is everywhere and ingrained into journalistic news patterns. However, susceptibility to framing effects may fade as the public grow more knowledgeable of framing effects. This can be achieved by borrowing from approaches used in the 'misinformation' literature not previously considered in the current study, such as 'pre-bunking', which has its foundations in the inoculation theory (McGuire, 1964). Put simply, the inoculation theory rests on the idea of making individuals 'immune' to misinformation by forewarning them that they may be misinformed (Lewandowsky & Van Der Linden 2021). Thus, when individuals are confronted with 'fake-news', or in the case of the present study, 'framing', they are able to debunk the misinformation before it occurs – a term coined 'pre-bunking'. This line of literature has demonstrated that if people are warned of misinformation use, the impact of misinformation is reduced (See Lewandowsky & Van Der Linder, 2021). Thus, applying this logic to framing may point to a possible way to overcome the negative impacts framing may have. However, the

current study acknowledges that negative framing and extreme actions may not always lead to less support, likewise the less intense framing may not always lead to greater support. This is certainly implied in the present study's findings by the lack of the framing and action effect on various measures; the effects were not uniform. Nevertheless, if the public were made aware of framing, and they were exposed to negative framing of climate change protestors, whilst it may not directly lead them to support climate mitigation, it may urge them to engage with researching the issue more, rather than simply adopting the argument provided in mass media. In turn, this may expand knowledge regarding the issue and keep the public more informed which may lead to less opposition down the line.

What constitutes an 'extreme' action?

A further consideration the current study highlights is the question 'what does it mean for an action to be extreme?'. In Feinberg et al's., (2020) experiment there was no explicit definition of what equates an 'extreme' action. Instead, attributes that were associated with extreme actions were listed, thus the discrepancies in their results and the current study's may be a result of this lack of precision on what is meant by an 'extreme' action. In a pilot study (n=48) conducted prior to the administration of the current study to participants, which compared the current stimuli actions against Feinberg et al's., (2020) (study 6) on measures of harmfulness, disruption, violence, and extremity. The results indicated that the stimuli were somewhat similar on measures of disruption, however, the current study's stimuli were rated less violent, harmful, and overall, less extreme than the stimuli used in Feinberg's study 6. Thus, the current study's manipulation between extreme and moderate was not as big as Feinberg's, which suggests that the lack of the action effect may have been a result of the action in the present study not being 'extreme' in Feinberg et al's., way of thinking about it- which emphasised violence, or implied violence.

Thinking about what constitutes extremity in a wider context, Feinberg's model is particularly useful. They emphasise 'immorality', in that the public perceive the actors of extreme actions as less immoral, which reduces support for the protest overall. This has real-life applications, with recent examples concerning protestor group 'insulate Britain' who recently blockaded the M25. Coverage of this protest emphasised the immorality of the protestors, by headlining the supposed death of a mother who was unable

to reach the emergency services in time with her son by her side and other similar headlines. This blockade caused controversy, with the consensus disfavouring these specific protestor's actions. Yet, when XR did a similar blockade targeting private jet owners they did not meet such hostility from the public. The apparent distinction between both protest tactics was that one concerned innocent by-standers being harmed, whereas the other targeted those who have an appreciable impact on climate change (private-jet owners). Perhaps this suggests that the conceptualisation of extremity may not lie within disruption, but rather, who is harmed. This links to the current study, whereby the stimuli contained high disruption but no mention of harm; the articles implied that some people could not get their paper, and some newsagents did not make money, but there was no explicit harm to any members of the public. This suggests that perhaps extremity may be conceptualised as an action that is 'harmful' as opposed to disruptive⁶, and depending on who is being harmed there will be different outcomes of support for these actions. Future research should aim to examine this fine line between violence and non-violence, by testing out what may contribute to 'extremity' and a qualitative study may be able to capture this complex concept best.

Similarly, what is defined as extreme generally relies on the context in which the action occurs (Haines, 2013; Rai & Fiske, 2012). This explains why similar actions could obtain different reactions from the public. Activists may manipulate their actions in line with their oppressors, to be deemed less 'extreme' and therefore less immoral. For instance, activists may use actions which highlight the immorality and hypocrisy of their oppressors. For example, XR activists sprayed 'fake blood' over the treasury as a statement of the blood that has and will be spilled by not taking climate mitigative action immediately. Actions like this may serve to remind the public of the seriousness of the cause that the activists are protesting for, and these actions may not be met with as unfavourable perceptions than if protestors were to act unprovoked (McLeod, 2007; Thomas & Louis, 2014). Conversely, these sorts of actions may not necessarily accrue a desirable outcome either, however the point stands that by carefully considering the sort of action one will undertake as part of a protest, as well as who this action will target, could cause less

⁶ This was further confirmed by a regression of the data provided in our pilot study which illustrated that harmfulness and violence explained 82% of the variance of 'extremity', with the addition of disruption only increasing it to 85%. Thus, understanding the role harmfulness plays in determining the extremity of a protest action is promising; it aids our understanding of how collective action may be mobilised.

marginalisation of the protest in the media and this possibility is implied in some past research (see Wasow, 2020). The current study urges future research to examine this question regarding of what it truly means to act in an 'extreme' way, as this can provide insight into which actions are extreme enough to garner the attention of the press, but not extreme enough to reduce support, and the focus on who is being harmed by the protestors tactics provides a promising start.

Limitations

Certain limitations of this study, alongside any aforementioned considerations, should be addressed in future research. For example, the sample consisted strictly of UK residents, because the protests in question were concerning actions that have taken place in the UK. Thus, the results reflected the responses of participants who live in western cultures whereby non-violent protest, and democracy is the norm. It will be interesting for future research to see how support for protest actions may differ in cultures whereby a functioning democracy does not exist, since some recent research has indicated such cultural differences in news coverage of protest (see Harlow et al., 2020). This would contribute to questions such as whether negative moral judgements of harmful behaviour are robust across cultures.

Similarly, the experimental design did not include a control group. This could provide some benefits to future research as it would have served as a baseline of attitudes to XR, whereby participants in this control group would not be exposed to either experimental framing condition and instead be assigned an article unrelated to XR and climate mitigation, whilst answering the same questionnaire. This would aid our understanding of the magnitude of the framing effect, and how attitudes to protests are in fact impacted by the framing and action, as direct comparisons can be drawn between the results of the participants in the experimental control and the control group. Thus, it may be a considerable direction for future research to involve control groups provided they contribute to understanding how framing effects may impact outcomes of support

Finally, the current study was susceptible to the issue of 'multiple testing'. Essentially, with the pvalue alpha arbitrarily set to .05 (95% confidence interval) psychological studies provide a 5% chance that the observed difference between values may have occurred by chance or 'fluke' (i.e., a false-positive or a type II error). This also means that in cases where the null hypothesis is true, by chance or 'fluke' one may observe a statistically significant difference between two values (i.e., a false-negative or type 1 error). Given that the current study ran seven multiple regressions, with 15 predictors, there were over 100 p-values being tested, which is too big for the current study's relatively small sample size. Furthermore, there is the possibility that the results displayed in the current study were impacted by the issue of multiple testing. This may explain the interaction effect of the frame with climate change concern and belief for the mitigation support measure, even in the absence of a main effect of frame. This limitation should be treated with serious caution because the claims of the current study aim to offer practical advice to protestors where the stakes are high (the are risking physical liberty) and pairing the findings with the methodological limitations present in the current study suggests that further research is required. Future research should account for the issue of multiple testing, perhaps by reducing the amount of criterion variables being measured, and by using a stricter significance threshold, in which advice offered to activists can have a more informed judgement.

Conclusion

The current research brings a nuance to the framing literature which has neglected the role of the action and the voice of the activists in garnering support via their tactics. Overall, the current study provides a commentary on how protestors can best push their agenda through to the public, by identifying aspects of a protest that may inhibit collective action mobilisation. The present research substantiates concerns about the key challenge protestors face- the activist's dilemma. Thus, distinguishing between which action is extreme enough to get you into the press, but not risk marginalisation is crucial for a movement's success, and the present study suggests that focusing on who the action is targeting is promising start. Although we do not provide an extensive list of pre-existing attitudes that may impact attitudes to support for climate change mitigation, we call for the need to develop climate change communication strategies to raise awareness and knowledge about the importance of climate mitigation as this will help overcome issues presented to protests such as the activist's dilemma. The current study contributes to the growing evidence of the protest-paradigm and the multi-faceted nature of support for a given protest.

Reference list

- Agnone, J. (2007). Amplifying public opinion: The policy impact of the U.S. environmental movement. Social Forces, 85(4), 1593–1620. doi:10.1353/sof.2007.0059
- Ajzen, I. & Fishbein, M. 1980. Understanding attitudes and predicting social behaviour. Englewood Cliffs, NJ: Prentice-Hall.
- Akerlof, K., & Maibach, E. W. (2011). A rose by any other name...?: What members of the general public prefer to call "climate change". *Climatic Change*, *106*(4), 699-710.
- Akkuş, B., Postmes, T., Stroebe, K., & Baray, G. (2020). Cultures of conflict: Protests, violent repression, and community values. *British journal of social psychology*, *59*(1), 49-65.
- Almeida, P., & Lichbach, M. (2003). To the Internet, from the Internet: Comparative media coverage of transnational protests. *Mobilization: An International Quarterly*, 8(3), 249-272.
- Amenta, E., Elliott, T. A., Shortt, N., Tierney, A. C., Türkoğlu, D., & Vann Jr, B. (2017). From bias to coverage: What explains how news organizations treat social movements. *Sociology Compass*, *11*(3), e12460.
- Amenta, E., Gardner, B. G., Tierney, A. C., Yerena, A., & Elliott, T. A. (2012). A Story-Centered Approach to the Newspaper Coverage of High-Profile SMOs. In *Media, Movements, and Political Change*. Emerald Group Publishing Limited.
- Amenta, E., Andrews, K. T., & Caren, N. (2019). The political institutions, processes, and outcomes movements seek to influence. *The Wiley Blackwell companion to social movements*, *2*, 449-465.
- Arpan, L. M., Baker, K., Lee, Y., Jung, T., Lorusso, L., & Smith, J. (2006). News coverage of social protests and the effects of photographs and prior attitudes. *Mass Communication & Society*, 9(1), 1-20.
- Banerjee, T. (2013). Media, movements, and mobilization: Tea Party protests in the United States, 2009–2010. In *Research in Social Movements, Conflicts and Change*. Emerald Group Publishing Limited.
- Baylor, T. (1996). Media framing of movement protest: The case of American Indian protest. *The Social Science Journal*, *33*(3), 241-255.
- Benford, R. D., & Snow, D. A. (2000). Framing processes and social movements: An overview and assessment. *Annual review of sociology*, 26(1), 611-639.
- Biggs, M., & Andrews, K. T. (2015). Protest campaigns and movement success: Desegregating the US South in the early 1960s. *American Sociological Review*, 80(2), 416-443.
- Bord, R. J., O'connor, R. E., & Fisher, A. (2000). In what sense does the public need to understand global climate change?. *Public understanding of science*, *9*(3), 205.
- Boyle, M. P., McCluskey, M. R., Devanathan, N., Stein, S. E., & McLeod, D. (2004). The influence of level of deviance and protest type on coverage of social protest in Wisconsin from 1960 to 1999. *Mass Communication & Society*, 7(1), 43-60.
- Boyle, M. P., McLeod, D. M., & Armstrong, C. L. (2012). Adherence to the protest paradigm: The influence of protest goals and tactics on news coverage in US and international newspapers. *The International Journal of Press/Politics*, *17*(2), 127-144.

- Boykoff, J. (2006). Framing dissent: Mass-media coverage of the global justice movement. *New Political Science*, 28(2), 201-228.
- Brewer, M. B. (2001). Ingroup identification and intergroup conflict. *Social identity, intergroup conflict, and conflict reduction, 3*, 17-41.
- Brewer, P. R. (2003). Values, political knowledge, and public opinion about gay rights: A framing-based account. *Public Opinion Quarterly*, 67(2), 173-201.
- Broomell, S. B., Budescu, D. V., & Por, H. H. (2015). Personal experience with climate change predicts intentions to act. *Global Environmental Change*, *32*, 67-73.
- Campbell, S., Chidester, P., Bell, J., & Royer, J. (2004). Remote control: How mass media delegitimize rioting as social protest. *Race, Gender & Class*, 158-176.
- Campbell, T. H., & Kay, A. C. (2014). Solution aversion: On the relation between ideology and motivated disbelief. *Journal of personality and social psychology*, *107*(5), 809.
- Caple, H., & Bednarek, M. (2013). Delving into the discourse: Approaches to news values in journalism studies and beyond.
- Caple, H., & Bednarek, M. (2016). Rethinking news values: What a discursive approach can tell us about the construction of news discourse and news photography. *Journalism*, *17*(4), 435-455.
- Carragee, K. M. (1993). A critical evaluation of debates examining the media hegemony thesis. *Western Journal* of Communication (includes Communication Reports), 57(3), 330-348.
- Carragee, K. M., & Roefs, W. (2004). The neglect of power in recent framing research. *Journal of communication*, *54*(2), 214-233.
- Carrus, G., Panno, A., & Leone, L. (2018). The moderating role of interest in politics on the relations between conservative political orientation and denial of climate change. *Society & Natural Resources*, *31*(10), 1103-1117.
- Carter, M. J. (2013). The hermeneutics of frames and framing: An examination of the media's construction of reality. *Sage Open*, *3*(2), 2158244013487915.
- Chan, A. (1995). Anarchists, violence and social change: perspectives from today's grassroots. *Anarchist Studies*, *3*(1), 45-68.
- Chan, J. M., & Lee, C. C. (1984). The journalistic paradigm on civil protests: A case study of Hong Kong. *The news media in national and international conflict*, 183-202.
- Chenoweth, E., & Schock, K. (2015). Do contemporaneous armed challenges affect the outcomes of mass nonviolent campaigns?. *Mobilization: An International Quarterly*, 20(4), 427-451.
- Chenoweth, E., Stephan, M. J., & Stephan, M. J. (2011). *Why civil resistance works: The strategic logic of nonviolent conflict*. Columbia University Press.
- Chinn, S., Hart, P. S., & Soroka, S. (2020). Politicization and polarization in climate change news content, 1985-2017. *Science Communication*, 42(1), 112-129.
- Chong, D., & Druckman, J. N. (2007). Framing theory. Annu. Rev. Polit. Sci., 10, 103-126.

- Cho, H., & Sands, L. (2011). Gain-and loss-frame sun safety messages and psychological reactance of adolescents. *Communication Research Reports*, 28(4), 308-317.
- Chryst, B., Marlon, J., van der Linden, S., Leiserowitz, A., Maibach, E., & Roser-Renouf, C. (2018). Global warming's "Six Americas Short Survey": Audience segmentation of climate change views using a four question instrument. *Environmental Communication*, *12*(8), 1109-1122.
- Corbett, J. B., & Durfee, J. L. (2004). Testing public (un) certainty of science: Media representations of global warming. *Science Communication*, *26*(2), 129-151.
- Davis, J. J. (1995). The effects of message framing on response to environmental communications. *Journalism & Mass Communication Quarterly*, 72(2), 285-299.
- De Vries, G., Terwel, B. W., Ellemers, N., & Daamen, D. D. (2015). Sustainability or profitability? How communicated motives for environmental policy affect public perceptions of corporate greenwashing. *Corporate Social Responsibility and Environmental Management*, 22(3), 142-154.
- Dietz, T., Dan, A., & Shwom, R. (2007). Support for climate change policy: Social psychological and social structural influences. *Rural sociology*, 72(2), 185-214.
- Ditto, P. H., & Koleva, S. P. (2011). Moral empathy gaps and the American culture war. *Emotion Review*, *3*(3), 331-332.
- Dixon, J., Cakal, H., Khan, W., Osmany, M., Majumdar, S., & Hassan, M. (2017). Contact, political solidarity and collective action: An Indian case study of relations between historically disadvantaged communities. *Journal of Community & Applied Social Psychology*, 27(1), 83-95.
- Domke, D., McCoy, K., & Torres, M. (1999). News media, racial perceptions, and political cognition. *Communication research*, *26*(5), 570-607.
- Domke, D., Shah, D. V., & Wackman, D. B. (2000). Rights and morals, issues, and candidate integrity: Insights into the role of the news media. *Political Psychology*, *21*(4), 641-665.
- Drews, S., & Van den Bergh, J. C. (2016). What explains public support for climate policies? A review of empirical and experimental studies. *Climate Policy*, *16*(7), 855-876.
- Druckman, J. N. (2009). Competing frames in a political campaign. In *Winning with words* (pp. 113-132). Routledge.
- Druckman, J. N., & Holmes, J. W. (2004). Does presidential rhetoric matter? Priming and presidential approval. *Presidential Studies Quarterly*, *34*(4), 755-778.
- Druckman, J. N., & Nelson, K. R. (2003). Framing and deliberation: How citizens' conversations limit elite influence. *American Journal of Political Science*, 47(4), 729-745.
- Dunlop, L., Atkinson, L., Mc Keown, D., & Turkenburg-van Diepen, M. (2021). Youth representations of environmental protest. *British Educational Research Journal*.
- Earl, J., Martin, A., McCarthy, J. D., & Soule, S. A. (2004). The use of newspaper data in the study of collective action. *Annu. Rev. Sociol.*, *30*, 65-80.

- Ecker, U. K., Butler, L. H., Cook, J., Hurlstone, M. J., Kurz, T., & Lewandowsky, S. (2020). Using the COVID-19 economic crisis to frame climate change as a secondary issue reduces mitigation support. *Journal of Environmental Psychology*, 70, 101464.
- Entman, R. M. (1993). Framing: Toward a clarification of a fractured paradigm. *Journal of Communica- tion*, 43(4), 51–58.
- Entman, R. M. (2007). Framing bias: Media in the distribution of power. *Journal of communication*, 57(1), 163-173.
- Entman, R. M. (2006). Framing Public Life: Perspectives on Media and Our Understanding of the Social World, edited by Stephen D. Reese, Oscar H. Gandy, Jr., and August E. Grant. Mahwah, NJ: Lawrence Erlbaum Associates, 2001. 416 pp. \$42.50 cloth.
- Entman, R. M., Matthes, J., & Pellicano, L. (2009). Nature, sources, and effects of news framing. In *The handbook of journalism studies* (pp. 195-210). Routledge.
- Feinberg, M., & Willer, R. (2011). Apocalypse soon? Dire messages reduce belief in global warming by contradicting just-world beliefs. *Psychological science*, 22(1), 34-38.
- Feinberg, M., Willer, R., & Kovacheff, C. (2017). Extreme protest tactics reduce popular support for social movements. *Rotman School of Management Working Paper*, (2911177).
- Feinberg, M., Willer, R., & Kovacheff, C. (2020). The activist's dilemma: Extreme protest actions reduce popular support for social movements. *Journal of personality and social psychology*, *119*(5), 1086.
- Feldman, L., & Hart, P. (2018). Broadening exposure to climate change news? How framing and political orientation interact to influence selective exposure. *Journal of Communication*, 68(3), 503-524.
- Gamson, W. A. (1989). News as framing: Comments on Graber. American behavioral scientist, 33(2), 157-161.
- Gamson, W. A., & Wolfsfeld, G. (1993). Movements and media as interacting systems. *The Annals of the American Academy of Political and Social Science*, 528(1), 114-125.
- Gitlin, T. (2003). *The whole world is watching: Mass media in the making and unmaking of the new left*. Univ of California Press.
- Gross, L. (2001). Up from invisibility: Lesbians, gay men, and the media in America. Columbia University Press.
- Gross, K. (2008). Framing persuasive appeals: Episodic and thematic framing, emotional response, and policy opinion. *Political Psychology*, 29(2), 169-192.
- Gubitz, S. R., Klar, S., Robison, J., & Druckman, J. N. (2018). Political dynamics of framing. In *New Directions in Media and Politics* (pp. 29-53). Routledge.
- Gurevitch, M., Bennett, T., Curran, J., & Woollacott, J. (Eds.). (1982). *Culture, society and the media* (pp. 56-90). London: Methuen.
- Gutting, R. S. (2020). Contentious activities, disrespectful protesters: Effect of protest context on protest support and mobilization across ideology and authoritarianism. *Political behavior*, 42(3), 865-890.
- Haider-Markel, D. P., & Joslyn, M. R. (2001). Gun policy, opinion, tragedy, and blame attribution: The conditional influence of issue frames. *Journal of Politics*, *63*(2), 520-543.

- Haines, H. H. (2013). Radical flank effects. *The Wiley-Blackwell Encyclopedia of Social and Political Movements*.
- Hamilton, L. C. (2011). Education, politics and opinions about climate change evidence for interaction effects. *Climatic Change*, *104*(2), 231-242.
- Harlow, S., Kilgo, D. K., Salaverría, R., & García-Perdomo, V. (2020). Is the whole world watching? Building a typology of protest coverage on social media from around the world. *Journalism Studies*, *21*(11), 1590-1608. –
- Hart, P. S., Chinn, S., & Soroka, S. (2020). <? covid19?> politicization and polarization in COVID-19 news coverage. *Science Communication*, *42*(5), 679-697.
- Hart, P. S., & Nisbet, E. C. (2012). Boomerang effects in science communication: How motivated reasoning and identity cues amplify opinion polarization about climate mitigation policies. *Communication research*, *39*(6), 701-723.
- Hayward, C. R. (2020). Disruption: What is it good for?. The Journal of Politics, 82(2), 448-459.
- Heath, Y., & Gifford, R. (2006). Free-market ideology and environmental degradation: The case of belief in global climate change. *Environment and behavior*, *38*(1), 48-71.
- Iacobucci, D., Schneider, M. J., Popovich, D. L., & Bakamitsos, G. A. (2016). Mean centering helps alleviate "micro" but not "macro" multicollinearity. *Behavior research methods*, *48*(4), 1308-1317.
- Ingram, P., Yue, L. Q., & Rao, H. (2010). Trouble in store: Probes, protests, and store openings by Wal-Mart, 1998–2007. *American Journal of Sociology*, *116*(1), 53-92.
- Iyengar, S. (1994). Is anyone responsible?: How television frames political issues. University of Chicago Press.
- Iyer, A., Schmader, T., & Lickel, B. (2007). Why individuals protest the perceived transgressions of their country: The role of anger, shame, and guilt. *Personality and Social Psychology Bulletin*, 33(4), 572-587.
- Jasper, J. M. (1998, September). The emotions of protest: Affective and reactive emotions in and around social movements. In *Sociological forum* (Vol. 13, No. 3, pp. 397-424). Kluwer Academic Publishers-Plenum Publishers.
- Jasper, J. (2004). A strategic approach to collective action: Looking for agency in social-movement choices. *Mobilization: An International Quarterly*, 9(1), 1-16.
- Jasper, J. M., & Poulsen, J. D. (1995). Recruiting strangers and friends: Moral shocks and social networks in animal rights and anti-nuclear protests. *Social problems*, 42(4), 493-512.
- Jost, J. T., Becker, J., Osborne, D., & Badaan, V. (2017). Missing in (collective) action: Ideology, system justification, and the motivational antecedents of two types of protest behavior. *Current Directions in Psychological Science*, *26*(2), 99-108.
- Kahan, D. M. (2012). Ideology, motivated reasoning, and cognitive reflection: An experimental study. *Judgment and Decision making*, *8*, 407-24.
- Kelloway, E. K., Francis, L., Catano, V. M., & Teed, M. (2007). Predicting protest. Basic and Applied Social Psychology, 29(1), 13-22.

- Kellstedt, P. M., Zahran, S., & Vedlitz, A. (2008). Personal efficacy, the information environment, and attitudes toward global warming and climate change in the United States. *Risk Analysis: An International Journal*, 28(1), 113-126.
- Kilgo, D. K., Harlow, S., García-Perdomo, V., & Salaverría, R. (2018). From# Ferguson to# Ayotzinapa: Analyzing differences in domestic and foreign protest news shared on social media. *Mass Communication* and Society, 21(5), 606-630.
- Kilgo, D. K., Mourao, R. R., & Sylvie, G. (2019). Martin to Brown: How time and platform impact coverage of the Black Lives Matter movement. *Journalism Practice*, *13*(4), 413-430.
- Kilgo, D. K., & Mourão, R. R. (2021). Protest Coverage Matters: How Media Framing and Visual Communication Affects Support for Black Civil Rights Protests. *Mass Communication and Society*, 1-21.
- Kim, S. H., Scheufele, D. A., & Shanahan, J. (2005). Who cares about the issues? Issue voting and the role of news media during the 2000 US presidential election. *Journal of Communication*, 55(1), 103-121.
- King, B. G. (2011). The tactical disruptiveness of social movements: Sources of market and mediated disruption in corporate boycotts. *Social Problems*, 58(4), 491-517.
- King, B. G., & Soule, S. A. (2007). Social movements as extra-institutional entrepreneurs: The effect of protests on stock price returns. *Administrative Science Quarterly*, 52(3), 413-442.
- Koopmans, R. (2004). Movements and media: Selection processes and evolutionary dynamics in the public sphere. *Theory and society*, *33*(3), 367-391.
- Krosnick, J. A., Holbrook, A. L., & Visser, P. S. (2000). The impact of the fall 1997 debate about global warming on American public opinion. *Public Understanding of Science*, *9*(3), 239.
- Lau, R. R., & Heldman, C. (2009). Self-interest, symbolic attitudes, and support for public policy: A multilevel analysis. *Political Psychology*, *30*(4), 513-537.
- Lecheler, S., & De Vreese, C. H. (2012). News framing and public opinion: A mediation analysis of framing effects on political attitudes. *Journalism & mass communication quarterly*, 89(2), 185-204.
- Lee, F. L. (2014). Triggering the protest paradigm: Examining factors affecting news coverage of protests. *International Journal of Communication*, *8*, 22.
- Lee, N. J., McLeod, D. M., & Shah, D. V. (2008). Framing policy debates: Issue dualism, journalistic frames, and opinions on controversial policy issues. *Communication Research*, *35*(5), 695-718.
- Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All frames are not created equal: A typology and critical analysis of framing effects. *Organizational behavior and human decision processes*, *76*(2), 149-188.
- Lewandowsky, S., & Van Der Linden, S. (2021). Countering misinformation and fake news through inoculation and prebunking. *European Review of Social Psychology*, 1-38.
- Lipsky, M. (1968). Protest as a political resource. American political science review, 62(4), 1144-1158.
- Luders, J. (2006). The economics of movement success: Business responses to civil rights mobilization. *American Journal of Sociology*, 111(4), 963-998.
- Lyytimäki, J., & Tapio, P. (2009). Climate change as reported in the press of Finland: From screaming headlines to penetrating background noise. *International Journal of Environmental Studies*, 66(6), 723-735.

- Madestam, A., Shoag, D., Veuger, S., & Yanagizawa-Drott, D. (2013). Do political protests matter? evidence from the tea party movement. *The Quarterly Journal of Economics*, *128*(4), 1633-1685.
- McCaffrey, D., & Keys*, J. (2000). Competitive framing processes in the abortion debate: Polarizationvilification, frame saving, and frame debunking. *Sociological Quarterly*, *41*(1), 41-61.
- McCright, A. M. (2011). Political orientation moderates Americans' beliefs and concern about climate change. *Climatic Change*, 104(2), 243-253.
- McCurdy, P. (2012). Social movements, protest and mainstream media. Sociology Compass, 6(3), 244-255.
- McGuire, W. J. (1964). Inducing resistance to persuasion. Some contemporary approaches. *CC Haaland and* WO Kaelber (Eds.), Self and Society. An Anthology of Readings, Lexington, Mass.(Ginn Custom Publishing) 1981, pp. 192-230.
- McLeod, D. M. (2007). News coverage and social protest: How the media's protect paradigm exacerbates social conflict. *J. Disp. REsOL.*, 185.
- McLeod, D. M., & Detenber, B. H. (1999). Framing effects of television news coverage of social protest. *Journal of communication*, 49(3), 3-23.
- McLeod, D. M., & Hertog, J. K. (1992). The manufacture of public opinion'by reporters: informal cues for public perceptions of protest groups. *Discourse & Society*, *3*(3), 259-275.
- McLeod, D. M., & Hertog, J. K. (1998). Social control and the mass media's role in the regulation of protest groups: The communicative acts perspective. *Mass media, social control and social change*, 305-330.
- McLeod, D. M., & Hertog, J. K. (1999). Social control, social change and the mass media's role in the regulation of protest groups. *Mass media, social control, and social change: A macrosocial perspective, 305, 330.*
- Moser, S. C. (2010). Communicating climate change: history, challenges, process and future directions. *Wiley Interdisciplinary Reviews: Climate Change*, *1*(1), 31-53.
- Mourão, R. R., Kilgo, D. K., & Sylvie, G. (2021). Framing Ferguson: The interplay of advocacy and journalistic frames in local and national newspaper coverage of Michael Brown. *Journalism*, 22(2), 320-340.
- Mullen, B., Atkins, J. L., Champion, D. S., Edwards, C., Hardy, D., Story, J. E., & Vanderklok, M. (1985). The false consensus effect: A meta-analysis of 115 hypothesis tests. *Journal of Experimental Social Psychology*, 21(3), 262-283.
- Muñoz, J., & Anduiza, E. (2019). 'If a fight starts, watch the crowd': The effect of violence on popular support for social movements. *Journal of Peace Research*, *56*(4), 485-498.
- Murdock, G. (1981). Political deviance: The press presentation of a militant mass demonstration. In S. Cohen & J. Young (Eds.), *The manufacture of news: Deviance, social problems, and the mass media* (pp. 206–225). Beverly Hills, CA: Sage.
- Myers, D. J., & Caniglia, B. S. (2004). All the rioting that's fit to print: Selection effects in national newspaper coverage of civil disorders, 1968-1969. *American Sociological Review*, 69(4), 519-543.
- Nelson, T. E., & Oxley, Z. M. (1999). Issue framing effects on belief importance and opinion. *The journal of politics*, *61*(4), 1040-1067.

- Nelson, T. E., Oxley, Z. M., & Clawson, R. A. (1997). Toward a psychology of framing effects. *Political behavior*, *19*(3), 221-246.
- Nelson, T. E., & Willey, E. A. (2001). Issue frames that strike a value balance: A political psychology perspective. *Framing public life: Perspectives on media and our understanding of the social world*, 245-266.
- Neuman, W. R., Neuman, R. W., Just, M. R., & Crigler, A. N. (1992). Common knowledge: News and the construction of political meaning. University of Chicago Press.
- Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and policy for sustainable development*, *51*(2), 12-23.
- Nisbet, M. C., & Newman, T. P. (2015). Framing, the media, and environmental communication. In *The Routledge handbook of environment and communication* (pp. 345-358). Routledge.
- Noakes, J. A., & Johnston, H. (2005). Frames of protest: A road map to a perspective. *Frames of protest: Social movements and the framing perspective*, 1-29.
- O'Connor, R. E., Bord, R. J., Yarnal, B., & Wiefek, N. (2002). Who wants to reduce greenhouse gas emissions?. *Social Science Quarterly*, 83(1), 1-17.
- Oliver, P. E., & Maney, G. M. (2000). Political processes and local newspaper coverage of protest events: From selection bias to triadic interactions. *American Journal of Sociology*, *106*(2), 463-505.
- Olien, C., Tichenor, P., & Donohue, G. (1989). Media and protest. PUB TYPE, 25.
- Peacock, N., & Biernat, M. (2021). Two tales of two protests: Principled and partisan attitudes toward politically charged protests. *Journal of Applied Social Psychology*.
- Price, V., Tewksbury, D., & Powers, E. (1997). Switching trains of thought: The impact of news frames on readers' cognitive responses. *Communication research*, 24(5), 481-506.
- Rademaekers, J. K., & Johnson-Sheehan, R. (2014). Framing and re-framing in environmental science: Explaining climate change to the public. *Journal of Technical Writing and Communication*, 44(1), 3-21.
- Rai, T. S., & Fiske, A. P. (2012). Beyond harm, intention, and dyads: Relationship regulation, virtuous violence, and metarelational morality. *Psychological inquiry*, *23*(2), 189-193.
- RezaeeDaryakenari, B. (2021). The dilemma of violence. Political Research Exchange, 3(1), 1910048.
- Rohlinger, D. A. (2002). FRAMING THE ABORTION DEBARTE: Organizational Resources, Media Strategies, and Movement-Countermovement Dynamics. *Sociological Quarterly*, 43(4), 479-507.
- Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of experimental social psychology*, *13*(3), 279-301.
- Scherer, K. R. (2005). What are emotions? And how can they be measured?. *Social science information*, 44(4), 695-729.
- Scheufele, D. A. (1999). Framing as a theory of media effects. Journal of communication, 49(1), 103-122.
- Scheufele, B. (2004). Framing-effects approach: A theoretical and methodological critique.

- Schuldt, J. P., Enns, P. K., & Cavaliere, V. (2017). Does the label really matter? Evidence that the US public continues to doubt "global warming" more than "climate change". *Climatic Change*, *143*(1), 271-280.
- Schuldt, J. P., Konrath, S. H., & Schwarz, N. (2011). "Global warming" or "climate change"? Whether the planet is warming depends on question wording. *Public opinion quarterly*, 75(1), 115-124.
- Shah, D. V., Domke, D., & Wackman, D. B. (1996). "To thine own self be true" values, framing, and voter decision-making strategies. *Communication Research*, 23(5), 509-560.
- Shah, D. V., Kwak, N., Schmierbach, M., & Zubric, J. (2004). The interplay of news frames on cognitive complexity. *Human Communication Research*, *30*(1), 102-120.
- Shan, L., Diao, H., & Wu, L. (2020). Influence of the Framing Effect, Anchoring Effect, and Knowledge on Consumers' Attitude and Purchase Intention of Organic Food. *Frontiers in Psychology*, *11*, 2022.
- Shoemaker, P. J. (1984). Media treatment of deviant political groups. Journalism quarterly, 61(1), 66-82.
- Shultziner, D., & Stukalin, Y. (2021). Politicizing what's news: How partisan media bias occurs in news production. *Mass Communication and Society*, 24(3), 372-393.
- Simpson, B., Willer, R., & Feinberg, M. (2018). Does violent protest backfire? Testing a theory of public reactions to activist violence. *Socius*, *4*, 2378023118803189.
- Simpson, B., Willer, R., & Feinberg, M. (2021). READING 8 DOES VIOLENT PROTEST BACKFIRE?: TESTING A THEORY OF PUBLIC REACTIONS TO ACTIVIST VIOLENCE. SAGE Readings for Social Problems.
- Smith, J., McCarthy, J. D., McPhail, C., & Augustyn, B. (2001). From protest to agenda building: Description bias in media coverage of protest events in Washington, DC. *Social Forces*, 79(4), 1397-1423.
- Sniderman, P. M., & Theriault, S. M. (2018). The structure of political argument and the logic of issue framing. In *Studies in public opinion* (pp. 133-165). Princeton University Press.
- Sniderman, P. M., Hagendoorn, L., & Prior, M. (2004). Predisposing factors and situational triggers: Exclusionary reactions to immigrant minorities. *American political science review*, *98*(1), 35-49.
- Sobieraj, S. (2010). Reporting conventions: Journalists, activists, and the thorny struggle for political visibility. *Social Problems*, *57*(4), 505-528.
- Spence, A., & Pidgeon, N. (2010). Framing and communicating climate change: The effects of distance and outcome frame manipulations. *Global Environmental Change*, 20(4), 656-667.
- Stecula, D. A., & Merkley, E. (2019). Framing climate change: economics, ideology, and uncertainty in American news media content from 1988 to 2014. *Frontiers in Communication*, *4*, 6.
- Stephan, M. J., & Chenoweth, E. (2008). Why civil resistance works: The strategic logic of nonviolent conflict. *International security*, *33*(1), 7-44.
- Strawn, K. (2008). Validity and media-derived protest event data: Examining relative coverage tendencies in Mexican news media. *Mobilization: An International Quarterly*, *13*(2), 147-164.
- Stuart, A., Thomas, E. F., & Donaghue, N. (2018). "I don't really want to be associated with the self-righteous left extreme": Disincentives to participation in collective action. *Journal of Social and Political Psychology*.

- Sweetman, J., Maio, G. R., Spears, R., Manstead, A. S., & Livingstone, A. G. (2019). Attitude toward protest uniquely predicts (normative and nonnormative) political action by (advantaged and disadvantaged) group members. *Journal of Experimental Social Psychology*, 82, 115-128.
- Tadlock, B. L., Gordon, C. A., & Popp, E. (2008). Framing the issue of same-sex marriage: Traditional values versus equal rights. In *The politics of same-sex marriage* (pp. 193-214). University of Chicago Press.
- Thomas, E. F., & Louis, W. R. (2014). When will collective action be effective? Violent and non-violent protests differentially influence perceptions of legitimacy and efficacy among sympathizers. *Personality and Social Psychology Bulletin*, 40(2), 263-276.
- Triandis, H. C. (2000). Culture and conflict. International journal of psychology, 35(2), 145-152.
- Turner, J. C., Brown, R. J., & Tajfel, H. (1979). Social comparison and group interest in ingroup favouritism. *European journal of social psychology*, *9*(2), 187-204.
- Van der Meer, T. W., Van Deth, J. W., & Scheepers, P. L. (2009). The politicized participant: Ideology and political action in 20 democracies. *Comparative Political Studies*, 42(11), 1426-1457.
- Van Hauwaert, S. M., & Van Kessel, S. (2018). Beyond protest and discontent: A cross-national analysis of the effect of populist attitudes and issue positions on populist party support. *European Journal of Political Research*, 57(1), 68-92.
- Van Zomeren, M., Postmes, T., & Spears, R. (2008)a. Toward an integrative social identity model of collective action: a quantitative research synthesis of three socio-psychological perspectives. *Psychological bulletin*, 134(4), 504.
- Van Zomeren, M., Spears, R., & Leach, C. W. (2008)b. Exploring psychological mechanisms of collective action: Does relevance of group identity influence how people cope with collective disadvantage?. *British Journal of Social Psychology*, 47(2), 353-372.
- Villar, A., & Krosnick, J. A. (2011). Global warming vs. climate change, taxes vs. prices: Does word choice matter?. *Climatic change*, 105(1), 1-12.
- Vliegenthart, R. (2012). Framing in mass communication research–An overview and assessment. *Sociology Compass*, *6*(12), 937-948.
- Wang, D. J., & Piazza, A. (2016). The use of disruptive tactics in protest as a trade-off: the role of social movement claims. *Social Forces*, *94*(4), 1675-1710.
- Wasow, O. (2016, February). Do protest tactics matter? Evidence from the 1960s black insurgency. In *Race, Ethnicity, and Immigration Colloquium, University of California, Berkeley, CA*.
- Wasow, O. (2020). Agenda seeding: How 1960s black protests moved elites, public opinion and voting. *American Political Science Review*, *114*(3), 638-659.
- Weathers, M. R., & Kendall, B. E. (2016). Developments in the framing of climate change as a public health issue in US newspapers. *Environmental Communication*, *10*(5), 593-611.
- Wolfsfeld, G. (2004). Media and the Path to Peace. Cambridge University Press.
- Ziegler, A. (2017). Political orientation, environmental values, and climate change beliefs and attitudes: An empirical cross country analysis. *Energy Economics*, *63*, 144-153.

Appendix A Attention checks

Correct attention-check for the 'Moderate Action-Low Intensity' article:

"XR held a peaceful vigil to mourn the impact of climate and ecological breakdown. They lit candles, sang songs, and extended an invitation to Rupert Murdoch to declare a climate emergency."

Correct attention-check for the 'Extreme Action- Low Intensity' article:

"XR's blockade of a printing press was motivated by the medias failure to report on the climate emergency; activists claimed the media 'actively sow seeds of climate denial'."

Correct attention-check for the 'Moderate Action-High Intensity' article:

"XR held a vigil at Rupert Murdoch's business headquarters, requiring a huge police presence to attend the scene. Passers-by said, 'these disruptions make it difficult for the public to empathise with their [XR's] cause.""

Correct attention-check for the 'Extreme Action- High Intensity' article:

"XR's blockade of a printing press required a huge police presence to deal with the protestors and disrupted the distribution of major national newspapers."

Incorrect attention-checks regardless of which article variation participants read:

"Reflecting on XR's blockade, Priti Patel vowed to 'not allow that kind of anarchy on our streets'."

"XR's blockade of the printing press was revenge for a series of negative articles about XR."

Appendix B Information sheet

"Before you decide to take part in this study, it is important for you to understand why the research is being done and what it would involve. Please take time to read the following information carefully and decide whether or not you wish to take part in this study. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Background: In this study we aim to learn about the general public's opinion regarding some current issues. The experiment will examine this via a series of questions and will require a response to a very short article. We would like to remind you that in most psychology experiments, in order to preserve the scientific validity of research questions, it is not ideal to disclose all the factors and issues under study. This is because extensive prior knowledge of all the research questions may influence the way you think, behave and react during the experimental session. But, upon your completion of the study, we will inform you in more detail about the hypotheses we are testing, using a dedicated debriefing sheet. You will then also be able to ask any further questions you might have about this study. Our results may eventually be discussed and published in scientific journals and/or meetings. The study is conducted under the supervision of Dr. Colin Davis, in the School of Psychological Science, University of Bristol, as part of my Master's research degree.

Procedure: Participation in the study is entirely voluntary. It is up to you to decide whether or not to do this. If you decide to take part, you are still free to withdraw from the study at any time. If you decide not to take part, or to withdraw, you do not have to give a reason, nobody would be upset. If you agree to participate in this study, you will be presented with a series of questions about your opinions regarding different issues. You will then be presented with a short text outlining a protest action. Following this article, you will be invited to complete a brief questionnaire. This questionnaire will ask about your opinions regarding the article, as well as your own social experiences and attitudes as well as your demographic background (e.g., gender, age etc.).

What are the possible disadvantages and risks involved in taking part in the project? We foresee no risks in taking part.

Your data: Your involvement in the study will remain confidential. This information will only be available to research staff and national bodies which monitor whether research studies are conducted properly. Your actual study data will be anonymised. This means that it will be given an identification number and any identifying information about you will be removed. Therefore, it will not be possible to identify you by name from any aspect of documentation or reporting for this research study. At the end of the study your data will become "open data". This means that it will be stored in an online database so that it is publicly available.

What is open data? Open data means that data are made available, free of charge, to anyone interested in the research, or who wishes to conduct their own analysis of the data. We will therefore have no control over how these data are used. However, all data will be anonymised before it is made available and therefore there will be no way to identify you from the research data.

Why open data? Sharing research data and findings is considered best scientific practice and is a requirement of many funding bodies and scientific journals. As a large proportion of research is publicly funded, the outcomes of the research should be made publicly available. Sharing data helps to maximise the impact of investment through wider use, and encourages new avenues of research.

Your data will be used for no other purpose than to promote scientific knowledge through research.

If you have any questions at any time about this study, please do not hesitate to contact Dogan Ozcelik via email (do17814@bristol.ac.uk).

If participants have any concerns related to your participation in this study, please direct them to the Faculty of Life Science and Sciences Research Ethics Committee, via the Research Governance Team, research-governance@bristol.ac.uk

Appendix C Debrief form

"Thank you for your participation in the experiment.

This experiment is about how media coverage of a protest influences attitudes towards the protestors, the actions they have taken, and the overarching cause that the protest stands for? There is a long and ongoing debate over what influence (if any) social movements are able to exert on government policy. Social movements can capture public attention by engaging in demonstrations and street protest (Wasow, 2020). However, they cannot control how these actions are shaped into a narrative by the media; what activists do determine how they are framed in the media.

We aim to examine the influence of media framing of an action (either an extreme action or a moderate action conducted by Extinction Rebellion [XR]). The study asks the following questions:

A) Does the magnitude of the media framing effect vary according to the extremity of the action?

B) Do attitudes towards the action and the activists dissociate from attitudes toward the issue?

C) How are the responses to the framing article mediated by factors such as climate concern/belief, political ideology and general attitudes to protest (pre-existing attitudes)?

The article you read was modelled on a real article, but was modified by us. The action you read about (either a blockade of a printing works or a vigil outside News Corps headquarters) was a real action that took place in 2020.

Further Reading

Feinberg, M., Willer, R., & Kovacheff, C. (2020). The activist's dilemma: Extreme protest actions reduce popular support for social movements. Journal of personality and social psychology.

Wasow, O. (2020). Agenda seeding: How 1960s black protests moved elites, public opinion and voting. American Political Science Review, 114(3), 638-659.

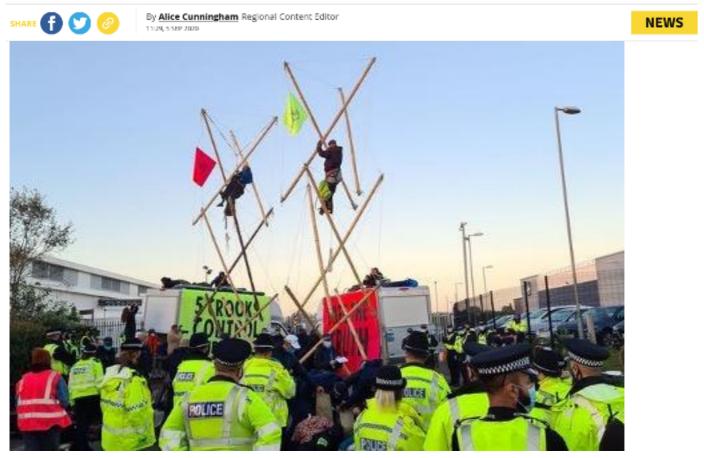
Klar, S., Robison, J., & Druckman, J. N. (2013). Political dynamics of framing. New directions in media and politics, 173-192."

Appendix D Stimuli Articles

Extreme action- High intensity Framing

Extinction Rebellion Broxbourne protest: Photos show huge police presence as protestors block off Hertfordshire printworks

The environmental campaign group have been in the area throughout the night



Police officers at the Broxbourne printworks where XR are protesting (Image: Extinction Rebellion)

Photos have emerged from the scene of the Broxbourne Extinction Rebellion protest where a huge police presence has attended the scene.

Between 80 and 100 protestors arrived at the scene last night, with 11 people reportedly

still at the scene on Saturday morning.

Hertfordshire Constabulary confirmed that 42 people have now been arrested in connection with the incident.

Assistant Chief Constable Owen Weatherill said: "We were called to reports of a protest, involving around 100 people, at around 10pm last night (Friday 4 September) and quickly mobilised resources to the scene.

"This remains a fast-moving operation, involving assistance from neighbouring forces. The inconsiderate actions of a few people have prevented businesses from operating.

"Protestors ignored our requests to move location, so we have taken robust action to enable the roads to be reopened and to remove the protestors causing obstructions.

"Throughout the night, officers have worked relentlessly to ease disruption and their efforts have ensured that all main roads, including the nearby A10, have remained open throughout the incident.

"We remain at the scene and are doing all we can to ensure the situation is dealt with as quickly as possible."

Pictures from the scene show a huge number of police officers this morning along with firefighters.

Protesters can be seen sat on top of trucks with banners draped over them.

One of the banners reads: "5 crooks control our news."

A spokesperson for Newsprinters in Broxbourne said: "Overnight printing at two Newsprinters plants was disrupted by activity by Extinction Rebellion. Thanks to other industry partners, printing was transferred to other sites.

"We apologise sincerely to any readers of The Sun, The Times, the Daily Mail, the Daily Telegraph and the Financial Times who may be unable to buy their usual newspaper this morning due to late deliveries.

"Our teams are working to get newspapers delivered to retailers as soon as possible this morning.

"This attack on all of the free press impacted many workers going about their jobs.

Overnight print workers, delivery drivers, wholesale workers and retail newsagents have faced delays and financial penalty.

"This matter is being handled by the Police and the Home Office."

The Federation of Independent Retailers said the protest left small businesses with "angry customers" to deal with as well as affecting home delivery services.

Stuart Reddish, the body's national president, said: "We are unable to get newspapers to our elderly and vulnerable customers.

"Newsagents have played a critical role during Covid-19 in getting newspapers into the hands of readers and this is not helpful at a time when every sale counts."

Extreme Action- Low Intensity framing

Extinction Rebellion protesters blockade Murdoch printing

sites

The environmental campaign group have been in the area throughout the night



By Alice Cunningham Regional Content Editor

NEWS



XR used vans and bamboo structures at the Broxbourne printworks (Image: Extinction Rebellion)

The activist group Extinction Rebellion has blockaded two UK printworks, delaying the distribution of major national newspapers.

The activists said that the action was to highlight the failure by the media to "report on the climate and ecological emergency".

More than 100 protesters used vehicles and bamboo structures to block roads outside the Newsprinters printing works at Broxbourne, in Hertfordshire, on Friday evening.

The presses print the Murdoch-owned News Corp's titles, including the Sun, Times, Sun on Sunday and Sunday Times, as well as the Daily Telegraph and Sunday Telegraph, the Daily Mail and Mail on Sunday, and the London Evening Standard.

A spokeswoman for Newsprinters said printing had transferred to "industry partners" overnight and that staff were working to get newspapers delivered to retailers as soon as possible.

Industry sources told the Guardian that other newspaper publishers swiftly helped pick up capacity to limit the disruption to distribution.

XR said "what we read in the papers is controlled by a handful of powerful billionaires who feed us stories that suit their interests".

"The news industry has a key role to play in the transformation we need to face up to the intersecting crises. We desperately need them to stop spreading hatred and lies, and instead take a real lead to help us hold our government to account."

Gully Bujak, an XR activist, said: "The climate emergency is an existential threat to humanity. Instead of publishing this on the front page every day as it deserves, much of our media ignores the issue and some actively sow the seeds of climate denial."

Hertfordshire police said officers were called to Great Eastern Road near the Broxbourne plant at about 10pm, where they found about 100 protesters who had "secured themselves to structures and one another".

Hertfordshire police assistant chief constable, Owen Weatherill, said: "The rights to protest are well established in this country and we remain committed to facilitating peaceful protest and ensuring compliance. We seek to balance this with the need to avoid disruption to local businesses."

XR apologised to newsagents for the disruption but added it would not apologise to Mr Murdoch, calling on him to "stop suppressing the truth about the climate crisis and profiting from the division your papers create".

Labour former shadow home secretary Diane Abbott, asked about the blockade, said direct action is a "legal tactic".

She told Sky News' Sophy Ridge on Sunday: "They're not criminals, they're protesters and activists in the tradition of the Suffragettes and the hunger marches of the 1930s."

And in a now-deleted tweet, Labour MP Dawn Butler appeared to praise XR, writing: "Bravo #ExtinctionRebellion. Excellent work..."

Moderate- High intensity framing Extinction Rebellion rally outside Rupert Murdoch's News Corps HQ

The environmental campaign group have been in the area throughout the night



By <u>Alice Cunningham</u> Regional Content Editor



Today the XR activist group staged a "peaceful vigil" outside Rupert Murdoch's HQ at the mini-Shard, London Bridge, where a huge police presence has attended the scene.

Banners read, "Free press? Prove it! Media tell the truth!" and "The Scam! Lying to our readers on climate change".

XR held the vigil on the private area in front of the offices not covered by the blanket ban imposed by the Metropolitan Police on protests by XR across London.

Police forces had to quickly mobilise resources to oversee the event.

Pictures from the scene show police vans surrounded by rebels in colourful

NEWS

costumes, with one protestor chanting demands through a megaphone.

XR demanded that Rupert Murdoch and his global media corporation News Corps declare a climate and ecological emergency. They also said that his papers should prioritise their editorial resources and treat climate change as if it were a threat at the level of World War 2.

A representative of the Climate Media Coalition brandished a letter that they had sent to News Corps owner Rupert Murdoch and his son, demanding a meeting with them.

A representative for News Corp released a statement saying, "We're not climate deniers. We do not deny climate change."

He then added, "We regularly report on extreme weather events, such as the bushfires in Australia".

"XR cause disruptions regardless of what we report. They claim to be motivated by concern about climate change. In fact, their leaders are anarchists and their real agenda is to bring down our system of government."

Officers worked relentlessly to control the series of protests that took part throughout the day all over the busy streets of central London

Jason Brown, 35, who works in the area, commented that the protesters were making a lot of noise, and he didn't think that what they were doing was helpful for their cause.

Laura Watson, 46, mother of two, said, "All these disruptions make it really difficult for the public to empathise with their cause".

"You have a few people in ridiculous costumes, chanting and causing chaos, and you expect them to be taken seriously? It ruins the importance of the climate message", she added.

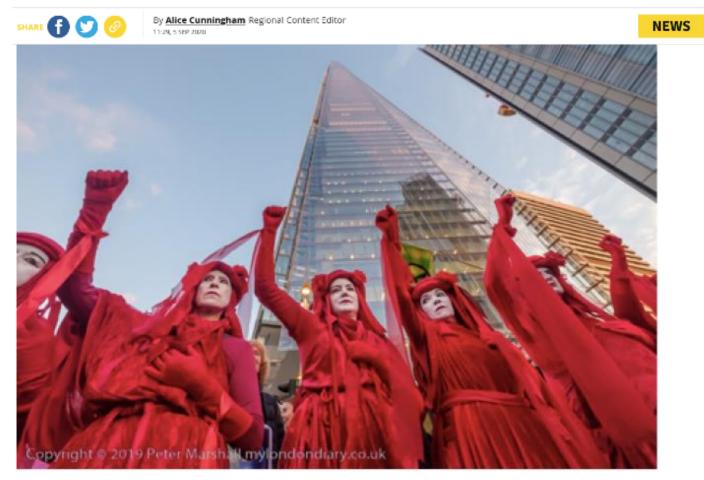
The action attracted some onlookers who took pictures of the protestors. But most passers-by ignored the protest. Some were seen plugging in their headphones as they approached the rebels.

Assistant Chief Constable Owen Weatherill said, "Protestors ignored our requests to move location, so we have taken robust action to remove any protestors causing obstructions."

"People have a right to protest, but the inconsiderate actions of a few people mustn't interfere with normal people going about their daily business".

Moderate- Low intensity framing Extinction Rebellion Stage Peaceful Vigil Outside Murdoch's HQ

The environmental campaign group have been in the area throughout the night



London, UK. 16th October 2019. The XR Red Brigade enter the vigil

Extinction Rebellion activists have staged a peaceful vigil outside Rupert Murdoch's HQ at the mini-Shard, London Bridge.

Speakers at the vigil said they were mourning the loss of more than 60% of all wild animals, fish and amphibians since 1970, and the millions of people whom the UN have said have already died from the impacts of climate and ecological breakdown over the last decade.

Activists sang songs and lit candles. Some came together in prayer, with onlookers stopping by and paying their respects.

Among the guest speakers was Friends of the Earth CEO Craig Bennett. He thanked XR for their message, saying "the ongoing sixth mass extinction is a critical issue that demands urgent attention."

Police were present but made no active moves to make arrests.

The activists said that they were extending an invitation to Rupert Murdoch and his global media corporation News Corp to declare a climate and ecological emergency and to prioritise its efforts to tackling it.

XR spokesperson Caspar Hughes said "Rupert Murdoch, as the owner of the world's most powerful media organisation, has a crucial opportunity to enable the public to give their political permission to the government, businesses and society at large to undertake the urgent civilisation-changing actions necessary".

He added, "We are therefore calling on Rupert Murdoch to join our rebellion and to imagine the extraordinary legacy he could leave, by helping to save humanity and what is left of the natural world from the emergencies that now engulf us".

Separately, the Climate Media Coalition voiced their support in a statement to the media that said, "Through his media outlets Rupert Murdoch has consistently downplayed climate change and its effects. During the recent bush fires in Australia even his own son James expressed his frustration at the ongoing climate crisis denial in News Corp and Fox News."

They also added, "We sent a letter to Murdoch about his constant undermining of the climate crisis. Sadly, neither of them replied."

Among the passers-by was John Nylander, who works as a consultant in the area. He said, "People are right to be concerned about climate change. I don't have a problem with the peaceful protest-- I see where they are coming from."

Leslie Smith MP commented that "even if XR aren't perfect, they reflect what a desperate moment this is."

She added, "The demonisation of people engaging in peaceful protest over the threats facing our planet is concerning."

News Corp did not respond to requests for a comment.