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## Original Research Reports

# “Save the Climate! Stop the Oil”: Actual Protest Behavior and Core Framing Tasks in the Portuguese Climate Movement

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## Abstract

In this article, we focus on two demonstrations against climate change that took place in Portugal on the 12th of November 2016 and the 29th of April 2017. Two separate studies were conducted on the same protests. In Study 1, we conducted a quantitative study (N = 259), to examine the role of socio-demographics and socio-psychological predictors in predicting the actual protest. Participants were demonstrators (N = 158), as well as non-demonstrators (N = 101). Results indicated that moral motivation and identification as an environmentalist were the key variables in explaining actual protest. In Study 2, we conducted a framing analysis of the written manifestos (N = 2), to identify the core framing tasks which were used to inspire and legitimize the protests. The framing analysis suggests that the problems and paths for action were described by appealing to the interlinkage between the global and local dimensions of climate change, and that arguments of severity and urgency of the problem were the most salient. The implications of this research are discussed in relation to possible pathways for a more comprehensive understanding of the reasons why people engage in collective action in climate change related issues, and how these motives may relate to how social movements mobilize people for action.

**Keywords:** climate movement, protests, frame analysis, climate justice, moral path

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The recent school strikes for climate and the emergence of new climate movements worldwide, have shown that more and more people are willing to fight for the planet (Marris, 2019). As a complex multidimensional problem demanding more than a single set of solutions, there is an ongoing debate on the many possible ways of addressing climate change (e.g., Kenis & Mathijs, 2012; Tvinnereim, Fløttum, Gjerstad, Johannesson, & Nordø, 2017). There are, indeed, many ways people can act on climate change, including diverse forms of individual and collective action. For decades, environmental psychologists (Steg, Bolderdijk, Keizer, & Perlaviciute, 2014; Stern, 2000; van der Werff, Steg, & Keizer, 2013) have been focusing on effective ways to change individual behavior and promote pro-environmental behavior, defined as the conscious search to harm the environment as little as possible or even to assist its sustainability (Steg & Vlek, 2009). Far less attention has been given to collective action, despite

previous research suggesting that the climate crisis is perceived as a collective problem, with collective and communitarian solutions (Fritzsche, Barth, Jugert, Masson, & Reese, 2018; Kenis & Mathijs, 2012; van Zomeren, Spears, & Leach, 2010). While global issues remain an uncommon cause for the mobilization of collective behavior (Carothers & Youngs, 2015), climate protests are becoming increasingly visible, especially during moments of international negotiations (Hadden, 2014). Nonetheless, there is a lack of systematic research on collective action in climate change issues (Bamberg, Rees, & Seebauer, 2015).

Previous studies have shown that models and variables explaining pro-environmental behavior were relatively poor predictors of collective action in environmental issues (e.g., Dono, Webb, & Richardson, 2010). In this regard, social and political psychology has provided theoretical foundations for the understanding of collective action from the perspective of people and their motives for participating (e.g., van Stekelenburg & Klandermans, 2013; Wright, 2009), with a few scholars proposing to integrate collective action models from the domains of injustice and discrimination into the climate action field (Bamberg et al., 2015; Fritzsche et al., 2018; Lubell, Zahran, & Vedlitz, 2007).

Although social-psychological dimensions are crucial to comprehend why and how people engage in collective action, when an individual participates in a social protest it is also a result of a process of mobilization undertaken by the Social Movement Organizations (hereafter SMOs) (Klandermans, 2004; van Stekelenburg & Klandermans, 2013). Therefore, following classical approaches in social movements research (e.g., Benford, 1993; Benford & Snow, 2000; Snow, 2004, 2013; Snow & Benford, 1988), we also looked at the frames used by the SMOs to mobilize for collective action. In this article, we present two studies conducted in Portugal, a country where new organizations and groups have been created in the last few years, aiming to stand up against climate change and to fight oil and shale gas drilling along the Portuguese coast. Overall, this research seeks to contribute to the literature on collective action in climate change issues, as well as to the understanding of the Portuguese climate movement. Two main questions guided our research: Which variables best explain the probability of being a demonstrator in climate change demonstrations? How is climate change being framed by the Portuguese climate movement? We will answer these exploratory questions by focusing on actual protest behavior rather than the mere intention to participate; by comparing demonstrators with non-demonstrators; and by looking at the manifestos of two demonstrations.

## Core Predictors of Collective Action

From sociological theories to psychological models, there have been many approaches to the examination of collective action (Klandermans & Roggeban, 2007).

Some have argued that there is a need to look at the role of socio-demographics when studying collective action (e.g., Cohen, Vigoda, & Samorly, 2001). In the environmental domain, women, younger and well-educated people have been associated with higher levels of concern for the environment (Atkinson, 2014; Clements, 2012). However, other studies have argued that these differences are inconsistent, and the role of socio-demographic variables may vary according to the type of action or protest (Scannell & Gifford, 2013; Walgrave, Rucht, & van Aelst, 2010). Aspects of political orientation have also been found to be predictors of collective action (Sabucedo, Gómez-Román, Alzate, van Stekelenburg, & Klandermans, 2017). Regarding environmental activism, some authors have proposed the inclusion of political ideological orientations (such as left-right orientation and party affiliation) as predictors of environmental action (Clements, 2012; Cruz, 2017). Studies conducted within the context of the U.S.A, have shown that political ideology is a stronger predictor of climate change beliefs, with conservatives being more

likely non-believers than liberals (Borick & Rabe, 2010). A liberal political orientation has also been associated with stronger responses to environmental disasters (Clayton, Koehn, & Grover, 2013). Cruz (2017), based in two meta-analysis, found that political ideology has indeed positive associations with the dimensions of environmental concern.

In the last few decades, the socio-psychological approach has become a central theory in the collective action field (van Stekelenburg & Klandermans, 2007). This approach argues that group-based anger, collective efficacy and identity represent the three key elements that explain why people engage in collective action. Several studies have shown the importance of these dimensions (Mannarini, Roccato, Fedi, & Rovere, 2009; Mazzoni, van Zomeren, & Cicognani, 2015; van Stekelenburg & Klandermans, 2007) and a meta-analysis confirmed the predictive power of each variable as well as its direct and indirect paths to collective action (van Zomeren, Postmes, & Spears, 2008). The first dimension relates to perceived injustice and involves the process in which an in-group disadvantage is seen as illegitimate, unfair or unjust. This perception pushes people to act collectively in order to reduce perceived inequalities (Klandermans, 2002), mainly through its affective dimension, i.e., anger (van Zomeren et al., 2008). Thus, the angrier people feel about a perceived injustice, the more willing they are to engage in collective action (van Zomeren et al., 2008). A focus on group-based anger has been the most common way of approaching anger in collective action (van Zomeren et al., 2008). However, as participation in the climate change movement does not, necessary, involve belonging to a disadvantaged group, it seems more appropriate to focus on self-focused anger to better include the possibility of an advantaged group members experience affective injustice in relations to a third party (Thomas & McGarty, 2009; Thomas, McGarty, & Mavor, 2009).

The second dimension is collective efficacy and refers to the belief that it is possible to achieve change through collective action (Klandermans, 2002, 2014). Different aspects of collective efficacy have been considered. Group efficacy refers to the perception that the group can change the situation and achieve its goals (van Zomeren et al., 2008). Thus, the stronger the sense of efficacy of the group the higher the willingness to engage in collective action (van Zomeren, 2016; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018). A different approach focuses on the perceived effectiveness of the collective action itself. Thus, the more effective an individual believes collective action is in influencing others, expressing values and principles or bringing about social change, the more likely he/she is to participate (Sabucedo et al., 2017; Simon et al., 1998). In line with previous studies measuring actual protest behavior (Sabucedo et al., 2017), when analyzing actual protests organized by a coalition of several organizations and groups, it seems more pertinent to look at how participants perceived the effectiveness of the collective action rather than analyzing the perceived efficacy of the group.

The third dimension is identity, which is supported by several studies that consistently showed the predictive power of group identification (Klandermans, 2014; Sabucedo et al., 2010; Simon et al., 2008; van Stekelenburg & Klandermans, 2007). The more someone identifies with a group, the higher the chances of taking part in collective action on behalf of said group (Klandermans, 2014). A distinction between politicized and non-politicized identity marks the way identity is considered in collective action studies (Simon & Klandermans, 2001; Turner-Zwinkels, van Zomeren, & Postmes, 2017). Identification with the movement or with the activist group has been named as politicized identity (Simon & Klandermans, 2001; van Zomeren et al., 2018), which “unlike broader and vaguer group identities, includes clear normative and action-oriented meaning” (van Zomeren et al., 2018, p. 125). Identification with the movement (e.g., feminist movement) was found to have a stronger effect than the effect of group identification (e.g., women) *per se* (Simon & Klandermans, 2001; Simon et al., 1998; Simon, Trötschel, & Dähne, 2008). As identification as an activist happens over time, and politicization of identity is probably a continuous

process (e.g., [Turner-Zwinkels et al., 2017](#); [van Zomeren et al., 2018](#)), individuals who have been active members in the political sphere tend to remain active throughout their lifetimes ([Andrews, 2017](#)).

By applying these variables to the environmental and climate domains, [Bamberg et al. \(2015\)](#) found that collective action in the climate protection field is motivated by collective efficacy and social identity. However, they also found no evidence for the direct influence of negative emotions and argued that climate change may be better explained by other variables such as hope and moral motivation ([Bamberg et al., 2015](#); [van Zomeren et al., 2010](#)). Previously, [Lubell et al. \(2007\)](#) have suggested that cost-benefits calculations were also predictors of global warming activism and [Dono et al. \(2010\)](#) found a relationship, although indirect, between social identity and environmental activism. Other studies have found that identity related concepts (e.g., sense of community, group identification) were positively associated with an increase in participation and attitudes towards the environment and land related issues ([Forsyth et al., 2015](#); [Mannarini et al., 2009](#)). The Social Identity Model of Pro-Environmental Action (SIMPEA) ([Fritzsche et al., 2018](#)) proposed to look at pro-environmental behavior as a group-based process. By adapting and extending models of social identity, the SIMPEA suggests that group identification, efficacy and in-group norms and goals (perceptions of the in-group norms of thinking and behavior as well as in-group goals) influence pro-environmental behavior. Emotions and motivations (e.g., guilt, anger, fear, threat) are anticipated to mediate the effect of the appraisal of environmental crisis on group-based processes, which in turn may lead to individual and collective pro-environmental action ([Fritzsche et al., 2018](#)).

## Moral Pathway to Collective Action

A more recent trend in studies of collective action proposes the introduction of a moral path, with several authors arguing that it could help in achieving a more comprehensive understanding of collective action ([Mazzoni et al., 2015](#); [Milesi & Alberici, 2018](#); [Sabucedo, Dono, Alzate, & Seoane, 2018](#); [van Zomeren, 2016](#); [van Zomeren et al., 2012](#); [Vilas & Sabucedo, 2012](#)). Some studies have focused on the notion of moral convictions, defined as the strong and absolute belief that something is right or wrong ([Skitka & Bauman, 2008](#); [Skitka, Bauman, & Sargis, 2005](#)), arguing that any violation of a moral conviction has the potential to motivate individuals to collective action ([van Zomeren et al., 2012](#)). This was found to be the case when considering the antecedents of movement identification, as well the intentions of future activism, in the Italian water movement ([Mazzoni et al., 2015](#); [van Zomeren et al., 2018](#)). [Sabucedo et al. \(2018\)](#) recently found that moral norms and moral convictions were antecedents of moral obligation, which in turn is a direct predictor of collective action. Hence, the decision to participate in collective action is driven by moral obligation and “based on the belief that this is what should be done” ([Vilas & Sabucedo, 2012](#), p. 371). Moving a step further, [Milesi and Alberici \(2018\)](#), supported by four different empirical studies with activists, demonstrated how moral foundations (such as a preference for care, fairness, or loyalty) were directly and indirectly associated with the intention of collective action through moral obligation and a politicized identity. Conversely, recent studies have been establishing a link between moral concerns and politicized identity, arguing that a politicized identity is moralized in its essence ([Turner-Zwinkels et al., 2017](#); [van Zomeren, 2016](#); [van Zomeren, Postmes, & Spears, 2012](#)).

The literature on environmental attitudes and pro-environmental behavior also supports the inclusion of a moral pathway, as previous studies shows that moral norms might predict pro-environmental behavior (e.g., [Bamberg & Möser, 2007](#); [Feinberg & Willer, 2013](#); [Stern, 2000](#); [Stern et al., 1999](#); [van der Werff et al., 2013](#)). For example, [van der Werff et al. \(2013\)](#), found that people with a strong environmental identity are likely to conduct pro-environmental behaviors due to feelings of a moral obligation to act pro-environmentally. Moreover, public discourse

on the environment tends to evoke values of harm and care as the moral foundation for action (Feinberg & Willer, 2013). As summarized by Klöckner (2013), different concepts of moral motivation have also been associated with environmental action, such as stable basic value orientations (e.g., post-materialistic) and personal norms (what a person feels morally obliged to do in a certain situation based on his/her value system). Nevertheless, very few studies have tested a moral path in relation to collective action in climate issues. Despite the empirical evidence that the above-mentioned dimensions are predictors of collective action, most of the studies mentioned focused on the intention of future participation or refer to past experiences. In line with others, we argue that measures of actual collective action are needed (Mazzoni et al., 2015; Milesi & Alberici, 2018; van Zomeren et al., 2008). Several recent studies aiming to fill this research gap, compared activists and non-activists in actual protest behavior (e.g., Sabucedo et al., 2017; van Stekelenburg, Klandermans, & Van Dijk, 2011). However, most of these studies fitted into the social injustice and discrimination domains and there is a need to test the role of socio-psychological dimensions in relation to actual behavior in other contexts and demands, such as climate change.

## Framing Perspectives on Collective Action

Given the dynamic nature of social movements it is fundamental to look at collective action from diverse angles. Apart from the role of demographic and socio-psychological variables, the decision to participate in collective action is also influenced by the process of mobilization (Benford & Snow, 2000; Lindekilde, 2014). In this regard, the concept of framing - widely spread in the social movement field - has been used to explain how movements define their problems, formulate solutions and mobilize new supporters for their cause (Wahlström, Wennerhag, & Rootes, 2013). As an analytical framework, framing analysis focus on the beliefs and meanings that inspire and legitimize the activities and campaigns of the SMOs (Benford & Snow, 2000; Lindekilde, 2014; Snow, 2013; Snow & Benford, 1988; Snow, Vliegenthart, & Ketelaars, 2019). Considering that all SMOs engage in framing, the fundamental question is which frames are being activated and reinforced (Lakoff, 2010), regarding a certain issue and in a specific mobilizing context (Wahlström et al., 2013).

Benford and Snow (e.g., Benford, 1993; Benford & Snow, 2000; Snow, 2013; Snow & Benford, 1988; Snow et al., 2019), proposed that frames are constituted by three core tasks (diagnostic, prognostic, motivational), with all three being important for participant's mobilization (Snow et al., 2019). Diagnostic framing relates to the identification of the problem, as well as the attribution of blame or causality for the problematized state of affairs. Prognostic framing concerns the proposed solutions to problems including the identification of strategies, tactics and targets. Motivational framing refers to the rationale and motives used to incentive people to participation. Ultimately, motivational framing is about the reasons given by SMOs for "identifying with the goals and values of the movement and for taking action on its behalf" (Benford, 1993, p. 200). It can be identified in "vocabularies of motives" referring to the: severity of the problem; urgency of the problem; likelihood of change or the efficacy of collective action; and the necessity and responsibility for acting, including the moral imperative for doing so (Benford, 1993; Snow et al., 2019).

Under particular circumstances, a specific frame may expand in such an inclusive and ideational way that it becomes a master frame (Snow et al., 2019). In the climate movement, there has been a significant transformation of its frames in recent years (Della Porta & Parks, 2014). Climate justice has been placed as a master, strategic innovation and a unifying frame (Allan & Hadden, 2017; Della Porta & Parks, 2014; Wahlström et al., 2013). A master frame is wider in scope and influence, and "inclusive enough so that any number of other social movements can successfully adopt and deploy it in their campaigns" (Benford, 2013, p. 1). Since the mobilizations around the



Copenhagen Climate Summit in 2009, a climate justice frame has been strongly intensified (Chatterton, Featherstone, & Routledge, 2013), with many environmental organizations shifting to a justice-based frame (Allan & Hadden, 2017). Briefly resumed, climate justice comes into the climate change debate as an attempt to politicize climate change, showing that countries in the North have developed their global supremacy through the intensive exploitation of natural resources in the Global South (Tokar, 2014). By referring to the principles of democratic accountability, participation, ecological sustainability, empowerment and social justice (Chatterton et al., 2013), the climate justice frame seems to have contributed to the growth of the movement by allowing organizations to build broader coalitions (Allan & Hadden, 2017).

Overall, questions related to the representation and empowerment of vulnerable and marginalized people raise several moral and ethical issues (Adger, Butler, & Walker-Springett, 2017; Adger & Nicholson-Cole, 2011). Adger et al. (2017) developed a typology of moral arguments in climate adaptation, distinguishing between two broad types of moral arguments: vulnerability-based and system-based moral arguments. While the former relates to issues of respect of authority, duty and responsibility regarding climate change, the first is fundamentally based “on notions of the unfairness of imposing harm on others, on solidarity with those on whom harm has been imposed, and on the rightness of protecting vulnerable populations according to ability and need” (p. 377). Both arguments are represented in the definition of climate justice proposed by environmental organizations: “[climate justice as] the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly” (Mary Robinson Foundation, 2019). Furthermore, Feinberg and Willer (2013) claimed that arguments on climate change are often founded on appealing to the ideal of care and protection of the environment or protecting vulnerable people from harm. Others have shown that frames appealing to moral arguments are more likely to influence social action on climate change than economic arguments (Corner & Randall, 2011). Considering that social movements tend to be successful when the frames used align with the frames mobilizing the participants (Zeng, Dai, & Javed, 2019), it is then important to investigate how climate change is being framed among SMOs to better comprehend collective action in climate change issues.

## Present Research

Protests and demonstrations on climate change issues used to be considered to be rare in Portugal, although there are many examples of conflicts and mobilizations around the construction of nuclear plants, dams, waste incinerators or river pollution (Fernandes & Fernandes, 2019). In the last few years, the number of protests and demonstrations has increased, with the emergence of local groups focusing on climate change and justice issues and several groups have specifically been created with the aim to fight against oil and gas extraction along the Portuguese coast (Caitana, Ribeiro, Silva, Brás, & Meira, 2019).

In this research, we examine two climate demonstrations. The first demonstration took place on the 12<sup>th</sup> of November 2016 and it was first called by international SMOs to coincide with the 2016 United Nations Climate Change Conference (COP22). The second demonstration, internationally called by the American movement “People’s Climate March”, took place on the 29<sup>th</sup> of April 2017. In Portugal, both demonstrations were called and supported by an extensive list of organizations. The first demonstration was supported by 25 organizations and groups and the second by 27. With few exceptions, the list of signatories was the same in both events and included grassroots movements focusing on climate change issues, energy cooperatives, local groups acting against oil and gas drilling in Portugal, Environmental Non-Governmental Organizations (ENGOS), and human rights organizations (e.g., International Amnesty). Additionally, five political parties subscribed to the manifestos: Left Bloc

(Bloco de Esquerda), the Free Party (Partido Livre), the Ecologist Party "The Greens" (Partido Ecológico os Verdes) and People, Animals and Nature – PAN (Pessoas, Animais e Natureza); the Socialist Alternative Movement (MAS - Movimento Alternativo Socialista). The Left Bloc, Livre, MAS and Green Party regard themselves left-wing. In turn, PAN (People, Animals and Nature) is a political party that claims not fit into the traditional left-right wing political spectrum, presenting itself as a party of "causes" (PAN, 2018). At the time of the protests, the Socialist Party was the ruling party. As a minority government it had the official parliament support of three other political parties, including the Left Bloc and "The Greens".

Study 1 was designed to examine the predictors of participation in climate change demonstrations. For that, we conducted a survey to test the role of socio-demographics, and socio-psychological dimensions, including identification as an environmentalist, identification with the movement, self-focused anger; perceived effectiveness of demonstrations, and moral motivation (e.g., Klandermans, 2002; Mazzoni et al., 2015; van Zomeren et al., 2008; van Zomeren et al., 2018; Vilas & Sabucedo, 2012). Considering the literature that shows the importance of identity and moral dimensions in predicting collective action (e.g., Fritzsche et al., 2018; Stern, 2000; Stern et al., 1999; van der Werff et al., 2013), we expected these variables to be the most important dimensions in explaining actual protest behavior in climate change related issues. In addition, as previous studies have argued (e.g., Gómez-Román & Sabucedo, 2014; Sabucedo et al., 2017; van Stekelenburg et al., 2011), those who organize and support the demonstration will also influence the decision to participate. As both demonstrations had the official support of political parties, we expected that political orientation was a significant predictor of actual protest behavior.

In Study 2, we conducted a framing analysis (Benford & Snow, 2000; Snow, 2004) of the calls for protest, to gain more information on the type of motives used for mobilizing climate collective action. By focusing on the core framing tasks (diagnostics, prognostic, and motivational), we expected to comprehend if the frames used by SMOs were related with the predictors of actual protest behavior. Additionally, in line with previous research on activism around climate change, we expected climate justice to be a master frame in the Portuguese climate movement (Allan & Hadden, 2017; Della Porta & Parks, 2014; Wahlström et al., 2013). By considering the socio-demographic and socio-psychological predictors of collective action, as well as the collective action frames used to promote the demonstrations, we seek to contribute to a more comprehensive understanding of the reasons why people engage in climate collective action.

## Study 1

### Method

#### Sample

The sample was composed of 259 people (58% female; 97% Portuguese nationality) aged 18 to 71 ( $M = 37.80$ ,  $SD = 13.80$ ), who completed an online questionnaire. Two main groups were considered, demonstrators ( $N = 158$ ) and non-demonstrators ( $N = 101$ ). An analysis of socio-demographics variables indicated that around 53% of demonstrators (vs. 64% of non-demonstrators) identified as female,  $\chi^2(1, 257) = 3.121$ ,  $p = .077$ , and around 79% (vs. 87% of non-demonstrators) had completed at least one degree, Mann-Whitney  $U = 6339.500$ ,  $z = -2.715$ ,  $p = .007$ . In terms of age, demonstrators reported an average age of 38.12 ( $SD = 14.59$ ) and non-demonstrators of 37.40 ( $SD = 12.52$ ) years,  $t(254) = -0.461$ ,  $p = .646$ .



## Procedures

Participants were recruited in two demonstrations. In the first demonstration we collected data in Lisbon, where around 700 people participated in the demonstration. Five months, in the second demonstration we approached participants in Oporto, where around 300 people participated in the demonstration. Inspired by the recommendations for data collection during protests (Klandermans et al., 2011; Walgrave & Verhulst, 2011), two recruitment teams composed of 3-4 collaborators, approached potential participants. Team one was responsible for approaching demonstrators face-to-face. Team two had to ask non-demonstrators, as they were walking or engaged in leisure activities near the demonstrations. Potential participants were approached while the protests were taking place, and we tried to recruit as many participants as possible. Collaborators started to approach participants a few minutes before the demonstration commenced and stopped when it reached the end. We invited people to share an email address with us, so we could send them a link for an online survey, hosted by the Qualtrics software. The link for the survey was sent by email the day after the demonstrations. One-week later participants received a reminder. All participants were directed to read the research description carefully and fill out the questionnaire. They were asked to give consent and were guaranteed confidentiality during all parts of the data collection process. Of the total, 355 demonstrators were approached during the demonstrations and agreed to receive the questionnaire by email. From these, 205 participants initiated the questionnaire and 158 fully responded it. In turn, 96 non-demonstrators shared an email address with collaborators, and 68 filled out the questionnaire. The response rate of demonstrators was lower than that of non-demonstrators, but we received far more early rejections from non-demonstrators than demonstrators. In fact, almost all demonstrators approached during the demonstrations shared their personal emails, while non-demonstrators had the opposite reaction. In both groups, several email addresses were invalid or incorrect. Furthermore, in order to guarantee a comparable sample size between demonstrators and non-demonstrators, 33% of the final sample of non-demonstrators were recruited through snowball sampling. All the potential participants, before completing the questionnaire, had to confirm they had not participated in the demonstration but were in the area during that time. Furthermore, as the two demonstrations were supported by the same organizations, we merged the two samples (data collected in Lisbon on the 12<sup>th</sup> of November 2016; and in Oporto on the 29<sup>th</sup> of April 2017), after checking that there were no significant differences in terms of socio-demographics, political orientation and socio-psychological variables. A set of initial steps were conducted before analyzing the data (e.g., multiple outliers, missing values). Additionally, we also checked for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2013), through an un-rotated factor analysis, constraining the number of factors to 1. The result of 15% of the variance explained by a single factor shows that the common method bias was not a concern in this study.

## Instruments

The questionnaire used for data collection contained three sections (i.e., introductory letter, questions for variables, and queries for socio-demographics). Multi-item measures were assessed mostly on a Likert seven-point scale. Two similar questionnaires (see supplementary materials for the questionnaire items) were prepared, but some questions had to be adapted to the non-demonstrator group. Multi-item measures were created based on the mean scores.

**Socio-demographics** — A range of information was collected, including sex (female, male, other), age and level of education. The level of education was measured by an ordinal variable (nine categories of responses, ranging from primary education to PhD), where participants had to select their highest qualification obtained (higher scores represent higher-level qualifications).

**Previous experiences of participation** — Inspired by [Klandermans et al. \(2011\)](#), participants were asked to report participation in the previous climate change demonstration and actions against oil extraction in the last 12 months (yes or no). Additionally, they were asked how many times they have taken part in a demonstration throughout their lifetimes (never; one to five; between six to ten; between 11 to 20; more than 20).

**Membership in an environmental organization** — Participants were asked if they had been involved in any environmental organization in the past 12 months. If a member, participants had to place themselves as a passive or active member.

**Political orientation** — A single item was used to ask participants how they self-define in political terms (1 was extremely left and 7 extremely right).

**Political party identification** — From a list of all the national political parties (11), participants were invited to report with which political party they identified the most. A new variable was then created, where 1 corresponded to identification with a political party supporting the demonstration, 2 to identification with a political party not supporting the demonstration and 3 to no identification with any political party.

**Identification with the movement** — Adapted from the [Klandermans et al. \(2011\)](#), this variable included four items measuring identification with the organizers of the demonstration (Cronbach's  $\alpha = .89$ ). Response scale ranged from totally disagree (1) to totally agree (7).

**Identification as an environmentalist** — Four items were adapted from [Klandermans et al. \(2011\)](#) (Cronbach's  $\alpha = .91$ ). Participants had to position themselves on a scale ranging from totally disagree (1) to totally agree (7).

**Perceived effectiveness of demonstrations** — We follow the [Hornsey et al. \(2006\)](#) proposal to conceptualize the effectiveness of collective action not only in terms of its ability to influence key decision makers, but also in terms of influencing out-groups, influencing third parties, building an oppositional movement and/or expressing values. Thus, adapted from [Klandermans et al. \(2011\)](#) and adjusted to include the motives of the demonstration, this measure was composed by five items (Cronbach's  $\alpha = .91$ ). Response scale ranged from totally disagree (1) to totally agree (7).

**Self-focused anger** — Adapted from [Vilas and Sabucedo \(2012\)](#) and from [van Zomeren and colleagues \(2012\)](#), two emotions were used to measure emotions toward the environmental policies of the government (angry; furious). Response scale ranged from not at all (1) to very much (7). The result of the Spearman-Brown Reliability Estimate was .716.

**Moral motivation** — Inspired by the scale of moral conviction ([Skitka et al., 2005](#)) and moral obligation ([Vilas & Sabucedo, 2012](#)) and adapted for environmental and climate issues (Cronbach's  $\alpha = .816$ ). This scale originally consisted of six questions, however, as suggested by the reliability analysis one item was deleted (a person should feel proud to participate in actions against climate change). Response scale ranged from totally disagree (1) to totally agree (7).

## Results and Discussion

Descriptive analysis (see Table 1), suggested that demonstrators, compared to non-demonstrators, more often replied affirmatively whether or not they participated in the latest demonstration for the climate,  $\chi^2(1, 259) = 38.574$ ,  $p < .001$ , had more experiences of participation in protests and demonstrations during the last 12 months,  $\chi^2(1, 259) = 33.147$ ,  $p < .001$ ) more often reported to be a member of environmental organizations,  $\chi^2(2, 259) = 19.825$ ,  $p < .001$ , and have had more experiences of collective action during the course of their lifetimes, Mann-Whitney  $U = 5539,000$ ,  $z = -6.054$ ,  $p < .001$ . Additionally, a larger percentage of demonstrators identified with one of the four political parties supporting the demonstration,  $\chi^2(2, 256) = 28.416$ ,  $p < .001$ .

Table 1

*Previous of Experiences of Participation and Party Identification by Group*

Variable	Demonstrators (%) <i>n</i> = 158	Non-Demonstrators (%) <i>n</i> = 101	Total (%) <i>N</i> = 259
<b>Previous demonstrations</b>			
Yes	32.9	1.0	20.5
No	61.1	99.0	79.5
<b>Action in last 12 months</b>			
Yes	43.7	9.9	30.5
No	56.3	90.1	69.5
<b>Number demonstrations lifetime</b>			
Never	8.2	18.8	12.3
One to five	20.9	48.5	31.7
Six to ten	17.7	8.9	14.3
Between 11 to 20	10.1	12.9	11.2
More than 20	43.0	10.9	30.5
<b>Membership</b>			
Non-member	48.1	63.4	54.1
Passive member	19.0	27.7	22.4
Active member	32.9	8.9	23.6
<b>Political party identification</b>			
Demonstration's supporters	70.5	40.0	60.1
Non-demonstration's supporters	6.4	10.0	14.1
None identification	18.6	37.0	25.8

*Note.* Number demonstrations lifetime = Number of times taking part in any demonstration. Action last 12 months = Action against oil extraction in last 12 months. Membership = Membership in an environmental association.

Table 2 shows the means, standard deviations, and correlations of the assessed constructs. Preliminary analyses of variance, with groups (demonstrators and non-demonstrators) as the factor, indicated that demonstrators scored significantly higher than non-demonstrators on identification as an environmentalist,  $F(1, 257) = 78.244$ ,  $p < .001$ , identification with the movement,  $F(1, 257) = 15.926$ ,  $p < .001$ , self-focused anger,  $F(1, 257) = 8.415$ ,  $p < .004$ , and moral motivation,  $F(1, 257) = 61.985$ ,  $p < .001$ . Contrariwise, demonstrators have lower scores on political orientation,  $F(1, 250) = 27.065$ ,  $p < .001$ , suggesting demonstrators were more left-wing oriented. No significant difference was found on the perceived effectiveness of the demonstrations,  $F(1, 257) = 2.177$ ,  $p = .141$ .

Table 2

*Descriptive Statistics of Main Measures and Correlations*

Variable	Sample / groups	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
<b>1. Political orientation</b>	D	2.89	1.30	—					
	ND	3.77	1.33	—					
	Total	3.23	1.38	—					
<b>2. Identification as an environmentalist</b>	D	5.45	1.06	-.016	—				
	ND	4.11	1.38	-.127	—				
	Total	4.93	1.36	-.208**	—				
<b>3. Identification with the movement</b>	D	5.50	1.16	-.046	.443**	—			
	ND	4.89	1.24	.162	.613**	—			
	Total	5.26	1.23	-.041	.559**	—			
<b>4. Self-focused anger</b>	D	4.20	1.74	-.061	.144	.144	—		
	ND	3.56	1.69	-.059	.345**	.146	—		
	Total	3.95	1.74	-.113	.285**	.181**	—		
<b>5. Perceived effectiveness of demonstrations</b>	D	3.97	1.24	-.024	.255**	.364**	.164*	—	
	ND	3.72	1.46	.231*	.379**	.451**	.133	—	
	Total	3.88	1.33	.057	.320**	.411**	.164**	—	
<b>6. Moral motivation</b>	D	5.98	0.81	.132	.343**	.244**	-.010	.071	—
	ND	4.99	1.18	.061	.495**	.482**	.248*	.420**	—
	Total	5.59	1.08	-.057	.547**	.418**	.176**	.265**	—

Note. D and ND are used to represent demonstrators and non-demonstrators, respectively.

\* $p < .05$ . \*\* $p < .001$ .

## Explaining Actual Protest

A two-step logistic regression analysis was conducted to test the probability of belonging to the demonstrator or non-demonstrator group (binary variable). Model 1 included sex, age, level of education, and political orientation. In Model 2 the socio-psychological variables were introduced: identification as an environmentalist, identification with the movement, perceived effectiveness of demonstrations, self-focused anger, and moral motivation. Table 3 reports the results of the logistic regression analysis. Model 2 has a better fit, as indicated by the -2 Log likelihood (-2LL) and the pseudo  $R^2$  values (Field, 2009; Hosmer & Lemeshow, 2000). Additionally, post hoc power analyses revealed there is a 99% power for detecting a medium sized effect when employing the .05 statistical significance criterion (Faul, Erdfelder, Lang, & Buchner, 2007). Overall, introducing socio-psychological dimensions in the model increased the probability of predicting actual behavior, as model three classified 77% of the cases and explained almost 45% of the variance. For this model, the Wald statistics indicated that political orientation, identification as an environmentalist and moral motivation made significant contributions to explain the probability of being a demonstrator. The odds values ( $\text{Exp}(B)$ ) greater than 1 for these variables, indicated that an increase in these variables also increases the odds of the outcome (being a demonstrator) occurring (Field, 2009). In order to identify which variables differentiate the two groups the most, we calculated the receiver operating characteristic (ROC) curve, considering areas under the ROC curve (AUC) an indicator of effect size (Rice & Harris, 2005), and values of .70 to .80 to be acceptable (Hosmer & Lemeshow, 2000). Before calculating the AUC value for political orientation, a variable that reported negative regression weights, we reversed the scoring values. Additionally,

following Salgado (2018), we transformed the AUC values into Cohen's  $d$  values, concluding that the effect sizes of variables identification as an environmentalist and moral motivation were large.

Table 3

*Logistic Regression Analysis of Factors Influencing Participation in Demonstrations*

Variable	Model 1 <sup>a</sup>				Model 2 <sup>b</sup>				AUC <sup>c</sup>	Cohen's $d$
	$B$	$SE$	Wald	Exp ( $B$ )	$B$	$SE$	Wald	Exp ( $B$ )		
Constant	3.574**	0.971	13.537	35.654	-4.519*	1.675	7.280	0.011		
Sex (dummy)	0.217	0.292	0.554	1.242	0.348	0.351	0.983	1.417	.559	0.210
Age	-0.006	0.010	0.337	0.994	-0.003	0.012	0.085	0.997	.508	0.002
Education	-0.172*	0.081	4.550	0.842	-0.042	0.098	0.188	0.959	.407	0.000
Political orientation	-0.501**	0.109	21.123	0.606	-0.480*	0.131	13.357	0.619	.679	0.657
Identification as an environmentalist					0.675**	0.172	15.410	1.964	.779	1.087
Identification with the movement					-0.096	0.174	0.307	0.908	.643	0.518
Self-focused anger					0.078	0.098	0.634	1.081	.604	0.372
Perceived effectiveness of demonstrations					-0.167	0.137	1.496	0.846	.546	0.119
Moral motivation					0.804*	0.200	16.224	2.234	.751	0.958

*Note.* Dependent variable: 0 = non-demonstrators; 1 = demonstrators. Sex was used as dummy variable (0 = Male; 1 = Female).

<sup>a</sup>% cases = 65.3. Model fit:  $-2LL = 304.863$ ;  $\chi^2 = 30.946$ ;  $p \leq .001$ ;  $\chi^2_{HL}(8) = 4.550$ ;  $p = .804$ ; Cox & Snell  $R^2 = .116$ ; Nagelkerke  $R^2 = .157$ .

<sup>b</sup>% cases = 77.3. Model fit:  $-2LL = 234.718$ ;  $\chi^2 = 101.092$ ;  $p \leq .001$ ;  $\chi^2_{HL}(8) = 8.365$ ;  $p = .399$ ; Cox & Snell  $R^2 = .332$ ; Nagelkerke  $R^2 = .449$ .

<sup>c</sup>AUC = Area Under Curve.

\* $p < .05$  \*\* $p < .001$ .

Overall, the results of our analysis suggested that identification as an environmentalism and moral motivation were the two most important variables differentiating demonstrators and non-demonstrators. Therefore, participation in actual protest behavior seems to be, at least partially, explained by people's need to act consistently with their identities, principles, values and moral convictions.

## Study 2

### Method

#### Data

As manifestos are often collectively produced texts, created to represent the position and rationale of the movement for mobilization, they are the perfect sources to reach the frames of the movement, including its master frame (Aslanidis, 2018; Snow & Benford, 1988). In this study, we analyzed the manifestos of the demonstrations occurring on the 12<sup>th</sup> of November 2016 (Manifesto 1), and 29<sup>th</sup> of April 2017 (Manifesto 2), the same protests where data for Study 1 was collected. These documents were retrieved from a website (<https://salvaroclima.pt/>), where all the information regarding climate demonstrations since 2016 are archived. The website was created to disseminate these demonstrations, providing an online storage of the materials used. All organizations used the joint manifesto



to mobilize demonstrations, so our final *N* consisted of two manifestos. Both manifestos were relatively short (416 and 519 words), provided similar information, and included an image of a planet being held up by a group of people.

## Analysis

The analysis was conducted by the first author, but every step was discussed with both co-authors, who served as peer examiners (Merriam, 2009). A deductive thematic analysis was conducted, starting with the following first-level categories: diagnostic, prognostic and motivational framing (Benford, 1993; Benford & Snow, 2000; Snow, 2013; Snow et al., 1986; Snow et al., 2019). Furthermore, based on previous studies showing that climate justice is becoming a master frame in the climate movement (e.g., Allan & Hadden, 2017; Della Porta & Parks, 2014; Wahlström et al., 2013), we looked at how climate justice appeared in the manifestos, based on theoretical definitions of the concept (e.g., Allan & Hadden, 2017; Chatterton et al., 2013). Additionally, to explore how the frames used by SMOs might align with the most relevant predictors of actual protest, we considered how (and if) the dimensions found in Study 1 to differentiate demonstrators from non-demonstrators, emerged in the manifestos (namely identification as an environmentalist, moral motivation).

The material examined (see supplementary materials for the full manifestos) was organized with the support of the software NVIVO 12. In total, four first-level categories were created. The “diagnostic framing” included all the references related with the identification of the problem and attributions of blame and responsibility. The “prognostic framing” included all the mentions to solutions and plans of action. The “motivational framing”, included references to the severity and urgency of the problem; the need for social change and the efficacy of collective action; as well as expressions related to the necessity and propriety of acting (e.g., who should act). The fourth category named “climate justice as a master frame”, integrated all the references to human rights, social vulnerabilities and justice issues in climate change. The non-presence of elements of the mentioned frames was also considered a relevant finding. In order to ensure that our findings were trustworthy (Aslanidis, 2018; Merriam, 2009; Nowell, Norris, White, & Moules, 2017), triangulation of sources was used. Specifically, we analyzed two extra manifestos from two different demonstrations organized by the same SMOs in 2018: on the 24<sup>th</sup> of April (Manifesto 3) and 7<sup>th</sup> of September (Manifesto 4). Triangulation analysis corroborated our findings (see supplementary materials for the triangulation findings). Moreover, we looked at websites of SMOs as a form of cross-checking the results and confirming the emerging findings.

## Results and Discussion

The presentation of the findings is organized as follows: first, we present how the SMOs diagnosed the problems (causes and enemies); secondly, we focus on the solutions and the paths of action proposed in the manifestos; thirdly, we report the vocabularies of motives for the protests, as highlighted by the SMOs; fourthly, we illustrate how climate justice is integrated in the frames used by the Portuguese climate movement.

### Diagnostic Framing

International and national motives were used to justify the need for protest, under the umbrella argument that effective policies to address climate change were not compatible with the fossil fuel paradigm. In both manifestos climate change and global warming are explicitly mentioned as the problems leading to the demonstrations: “Since then, 2015 was the warmest year on the record and 2016 will be even worse”. (Manifesto 1). The broad economic model is considered responsible for climate change and global warming: “an economic addicted to emissions and

unregulated pollution” (Manifesto 1). Within the economic system the fossil fuel industry and related activities are seen as the primary source of climate change: “Anthropogenic global warming is being caused by the high greenhouse gases emissions, whose main source is the hydrocarbon combustion processes associated with the production and consumption of energy” (Manifesto 2). International and national political players were presented as the ones to blame for the current state of the climate, as they keep allowing fossil fuel extraction: “Trump is a public advocate of fracking and coal (...) Trump’s oil agenda has led to the “People’s Climate Movement in the USA”, the ones making the plea for the international demonstration on the 29<sup>th</sup> of April” (Manifesto 2). At a national level, political leaders and the current national government are considered responsible for perpetuating the conditions for “business as usual” and there is a perceived lack of climate action:

In Portugal, besides the action plans and strategies, concrete changes aiming to save the climate are still missing. To do so, one of the priorities must be to cancel all 15 concessions to exploit gas and oil along the Portuguese coast, from Algarve to Beira, from West to the Alentejo Coast (Manifesto 1).

In turn, the Portuguese government is accused of sending “mixed messages” (Manifesto 1) and “contradicting the spirit of the Paris Agreement” (Manifesto 2), as on the one hand “(...) declared that Portugal would be carbon-neutral by 2050. [Yet,] two months later, the government gave GALP/ENI a license to proceed with an offshore gas and oil prospection next to Aljezur” (Manifesto 2). From the perspective of the SMOs a “coherent climate policy cannot coexist with these oil and shale gas contracts” (Manifesto 1). Despite the importance of local problems, the transnational nature of the protests appears to have a strong influence in diagnosing the problem, as can be seen in the interlink between climate change and the possibility of extracting oil and shale gas in the Portuguese territory:

These concessions are an aberrant signal that there is a future for fossil fuel exploitation, contradicting the spirit of the Paris Agreement, which only a year ago had 191 countries agreeing to contain the rise in temperatures, which means stopping the exploitation of fossil fuels (Manifesto 1).

In this regard, we found similarities between the climate movement and the anti-austerity movement. As found by Baumgarten and García (2017) the anti-austerity movement had a trend towards international frames as a result of an increasing international process of organizing and a growing recognition of the interconnectedness of the problems of the world. Our analysis revealed a similar trend in the Portuguese climate movement. Indeed, the manifestos explicitly identified climate change as a global problem caused by multiple dimensions and with global and local implications. The fact that the coalition involved organizations dedicated to fight oil and gas drilling in Portugal reveals the importance of the local problems for the movement. The consideration of the slogans used in both demonstrations reinforce the link between global and local frames. The first demonstration was organized under the slogan “Save the climate, stop oil” and the second “No to oil drilling, yes to the future”. Both slogans reinforce the local identification of the problem, even though demonstrations were integrated in international calls for action.

### Prognostic Framing

As the connection between global concerns and local problems was strongly established in the process of diagnosing the problem (e.g., the threat of fossil fuel exploitation), the path of action presented also involved a national and global plan of action. At a broader level, there were several references to a need for a complete societal change:

As citizens and collectives, we want a country and planet in progress towards a new energetic paradigm, in compliance with human rights, that puts the interests of people and nature before the oil industry. We want another economy, free of concepts and practices that lead us to catastrophe (Manifesto 1).

In both manifestos, the SMOs demanded an energy transition, and explicitly proposed the cancellation of all contracts for oil and gas prospection and drilling along the Portuguese Coast. Furthermore, these solutions were always placed within the need for a broad and wider energy transition, as can be seen in the following quotation: “To fight climate change, it is necessary to have a change that has a just energy transition as the ultimate goal (...)” (Manifesto 2).

Comparing both manifestos, it seems that diagnostic and prognostic framing showed high correspondence (Snow et al., 2019), as both presented a discourse strongly oriented for an interlinkage between global-national dimensions of the problem and in the attribution of responsibilities. A clear, explicit, immediate and short-term national path action is presented: to cancel the 15 concessions to exploit gas and oil along the Portuguese coast (Manifesto 1 and 2) as well as a long-term strategy “energy transition”. At the global level, solutions are less specific, although a clear focus on energy transition is stressed in both manifestos. Overall, governments and political leaders are represented as the actors responsible for changing national climate politics:

There is no space for a coherent climatic politics with these contracts. It would be even harder to end these contracts if the government accept the free trade agreements with Canada (CETA - Comprehensive Economic and Trade Agreement, to be signed on the 27th) and the U.S.A (TTIP - Transatlantic Trade and Investment Partnership), which will involve an increase in the level of greenhouses emissions, as well as the privileges of big corporations (Manifesto 1).

### Motivational Framing

In terms of motivational framing, SMOs seemed to have constructed the manifestos by empathizing the severity of the problem and the urgency of action. The description of the climate change impacts and consequences is strongly emphasized in the diagnostic framing problem. Sentences and expressions indicating the gravity of problem were essentially related to global warming: “the planet is boiling” (Manifesto 1), “2015 was the warmest year on record” (Manifesto 1), and “the magnitude of greenhouse gases emissions has exceeded the planet’s natural capacity to remove those gases from the atmosphere” (Manifesto 2). Considering that despite its global dimensions, climate change is experienced locally (Nash et al., 2019), manifestos could have been more explicit about local consequences of climate change. In terms of urgency of action, both mitigation and adaptation actions at national and internationally level are perceived as urgently needed to deal with climate change: “It is pressing to stop CO<sub>2</sub> emissions and to prepare the geographic territories and populations for a new climate: hotter, drier, with frequent extreme climate events” (Manifesto 1). Despite several references to the need of “change” in different levels (e.g., economic, energy system), there were no references to the efficacy of demonstrating or the likelihood of the movement to success. Additionally, based on the results from Study 1, we expected that identification as an environmentalist and moral motivation would emerge more clearly in the manifestos. Regarding identification, the manifestos seemed to target already engaged citizens. Expressions such as “we will take to the streets, as citizens and organizations”, used in both manifestos, may reinforce the idea of a shared common identity, but are not necessary an invitation for other to join and participate. Although no categories of identification (e.g., environmentalists, left-wing) were explicitly mentioned (Eidson et al., 2017), by not presenting a clear invitation of others to participate, the manifestos seemed to be targeting those already concerned with climate change and environmental issues. Additionally, considering the predictive role of moral motivations in Study 1, it was expected that

the manifestos would present some references to values, principles and moral convictions. However, we did not find explicit appeals to the moral imperative of action (e.g., “this is the right thing to do”), or to other values and moral norms. Finally, there were several references to international and national struggles (Dakota Access Pipeline; Keystone XL Pipeline; Portuguese movement against oil and gas drilling; People’s Climate Movement), which may suggest an appeal to people’s political agency (O’Brien, 2015). However, it should be noticed that we did not find explicit references to the capacity of people to positively influence the collective future or to the efficacy of demonstrating.

### Climate Justice as a Master Frame

A look at the number and scope of the organizations involved in the organization of the marches revealed forthwith that the climate movement in Portugal is concerned with human rights, climate vulnerability, climate jobs, transition to renewable energies, and new forms of economy. The introduction of such concerns is a clear sign that the climate movement in Portugal is establishing a link between climate change and other social and political concerns, as a form of frame bridging (Snow et al., 1986). Moreover, collective action frames appeared connected with several references to the need to look at climate change as a question of human rights. This is in accordance with previous findings showing that the climate movement has shifted towards a climate justice frame in the last decade (Allan & Hadden, 2017; Della Porta & Parks, 2014; Wahlström et al., 2013). SMOs revealed a concern with social vulnerability, as explicitly mentioned in both manifestos: “The massive consensus around climate change and the huge danger that it represents for humanity, namely for the most vulnerable groups” (Manifesto 1) and “a consensus regarding climate change and its enormous threat to ecosystems and human society, in particular the most vulnerable groups within the population” (Manifesto 2). Overall, these quotations suggested a connection of climate change with social justice, and this connection is confirmed by the websites of some of the most active climate organizations at the present moment, who see climate justice as their main priority and principle.

Therefore, based on the definition of climate justice (Adger & Nicholson-Cole, 2011; Adger et al., 2017; Mary Robinson Foundation, 2019) we argued that there are several explicit references to climate justice in both manifestos: “a new energetic paradigm that respect human rights” (Manifesto 1), “a just transition” (Manifesto 2) “protect the most vulnerable groups of the population” (Manifesto 2). Nevertheless, vulnerable groups were mentioned in a vague and abstract manner without a clear identification of the rights and vulnerabilities, or how climate injustice appears in the Portuguese context. Nevertheless, there was a brief reference to procedural injustice “(...) ignoring the over 42 thousand people who demonstrated against the drilling, during the public consultation” (Manifesto 1), which may be also considered a dimension of climate justice. Indeed, the lack of influence in public participation processes, such as in public consultations, can be considered as a form of climate injustice (Holland, 2017).

## General Discussion

This article presents the results of two studies, focusing on the same two climate demonstrations. Taken together these studies give us a better understanding of the climate movement in Portugal, on the role of socio-demographic and socio-psychological predictors of collective action, and the frames used by the SMOs to promote the demonstrations. Overall, our analysis revealed a stable and continuous pattern of participation (Andrews, 2017; Lancee & Radl, 2014), as demonstrators compared to non-demonstrators showed higher experiences of participation in protests, demonstrations and engagement in environmental organizations. The same could be said about

the organizations as, with few exceptions, the list of signatories was the same in both demonstrations and included grassroots movements focusing on climate change issues, energy cooperatives, and local groups acting against oil and gas drilling in Portugal. In this regard, our framing analysis suggested that despite the presence of political parties in the list of SMOs, the coalition seemed to have avoided references to any specific political parties or political orientation. Climate change was framed by the SMOs as a social and political relevant issue, not only a political-party issue, and past and current governments and politicians were considered to be responsible for the current climate crisis. In the same line, results of Study 1 suggested that, although significant, political orientation was not the most relevant predictor of actual protest behavior.

Instead, moral motivation and identification as an environmentalist are the two most important variables explaining the participation of individuals in demonstrations. Specifically, the role of moral motivation, as a set of personal conceptions of what is right gives us interesting insights on the importance creating and developing an idea of what is “right or wrong” for the planet, ourselves, other people, and other species. If we believe that protecting the planet is the right thing to do, the probability of behaving in accordance with that may increase. However, to act as an effective driver, moral motivation may need to be complemented with a sense of moral obligation to intervene through collective action (Sabucedo et al., 2018). Hence, as it has been suggested in the pro-environmental action field, for less engaged people and groups, increasing moral concerns could help in promoting individual’s participation in collective action (Klöckner, 2013). Interestingly, considering findings from Study 2, references to values, principles and moral convictions were quite absent from both manifestos. In this regard, the framing analysis suggested that the SMOs constructed the calls around vocabularies of motives of severity and urgency of action (Benford, 1993; Snow et al., 2019). Furthermore, discourses around the “property of action”, i.e., who should act, were very oriented towards governmental and political leaders. Hence, no clear role for people (rather than those calling the protest) was presented, suggesting that the discourses of the SMOs were more oriented towards the mobilization of “environmentalists”, who already shared values and principles regarding the need for acting in climate change. This may also help to explain the fact that identification as an environmentalist was more important than identification with the movement in predicting actual protest, contrarily to what has been proposed (Simon & Klandermans, 2001; Simon et al., 2008; Turner-Zwinkels, van Zomeren, & Postmes, 2017). It could be argued that moral motivation might be implicit in an environmentalist identity. These variables were indeed correlated; however, they do not mean the same thing. As previously argued, moral motivation may strengthen individual group identification (van Zomeren et al., 2011), but identification per se does not imply a sense of obligation to act. We argue that, partially, this result can be explained by the specific mobilizing context of the protests under study. The demonstrations were supported by several groups, political parties and environmental organizations, some of them with very different agendas. All these “identities” had to become aligned, and this may have revealed a more salient identification as an environmentalist. In such context, the identification with the organizers may have a marginal importance or is already incorporated in the identities of the demonstrators.

Regarding the non-significant role of perceived effectiveness of demonstrations and self-focused anger, we argued that such dimensions can be useful to predict collective action intentions as previous studies have shown (e.g., van Zomeren et al., 2008), nonetheless, they might not be relevant to explain actual behavior in climate change issues. In this regard, Fritzsche et al. (2018) also noted that motivating collective action in environmental and climate change issues may not require intergroup conflict and resulting anger, as proposed for understanding collective action in the injustice and discrimination domains. In addition, previous research has also found no evidence for the direct influence of anger in climate change issues (Bamberg et al., 2015). The manifestos mentioned climate change as a threat, however, it seems that describing the problem as severe and urgent does not necessarily



correspond to the activation of emotions pushing people to engage in collective action. Additionally, when facing such a big challenge as climate change, people may experience perceived lack of power and efficacy (Kenis & Mathijs, 2012), yet, they may still engage in collective action because other drivers are more relevant, such as moral motivation and environmental identity. In this regard, the analysis of the manifestos did not present explicit mentions of the effectiveness of protesting, which may suggest at least a partial alignment of the motives highlighted in the manifestos with the people's motives for individual participation in the demonstrations.

Furthermore, as expected, the Portuguese climate movement seems to be using climate justice as a master frame (Allan & Hadden, 2017; Della Porta & Parks, 2014; Wahlström et al., 2013). Multiple references to the need of vulnerable people, human rights and just transition were found. Considering that the framing of climate change in justice terms may help to attract people to the climate movement (Kenis, 2019), it could be important to establish a better connection between the dimensions of problems identified, solutions presented and motives for demonstrating. Importantly, considering that despite its global dimensions, climate change is experienced locally (Nash et al., 2019), manifestos could have provided a better interconnection of global and local dimensions of climate justice. As a moral motivation path can be characterized by elements of justice (Gibbs, 2013), framing climate change as a matter of justice may activate moral elements that may help to the politicization of climate change issues. While a justice frame may not be necessary and automatically associated with a motivational framing, perceiving a situation as an illegitimate or unjust is an important step to make group membership politically relevant (van Steklenburg, van Leeuwen, & van Troost, 2013). In this regard, it should be noticed that both demonstrations studied had relatively few participants (300 to 700 participants). As such, considering that frames appealing to moral arguments are likely to influence action in climate change (Corner & Randall, 2011), the Portuguese climate movement could have been more effective in mobilizing non-identified environmentalists, if it had established a clearer link between climate change and perhaps collective agency and local/national elements of justice.

## Limitations and Directions for Future Research

Our results are based on a case study of Portuguese climate change protests in two particular demonstrations. These have been some clear limitations in terms of the ability to help to understand other movements in other contexts. Future research should examine whether these results can be applied to other contexts and other forms of collective action in climate change issues.

Regarding the quantitative study, at least four major limitations can be identified in our instrument. First, the role of efficacy could have been influenced by the fact that we measure the perceived effectiveness of demonstrations and not the group's efficacy. The same argument could be used to the variable anger. Secondly, measures of moral motivation should differentiate between moral obligation and moral convictions, as recent studies have shown (Sabucedo et al., 2018). It would also be particularly relevant to consider the role of moral foundations (Milesi & Alberici, 2018). Thirdly, measures of positive emotions (Włodarczyk, Basabec, Páez, & Zumeta, 2017) should have been included, as they may have a relevant influence on collective climate action. In the time of climate crisis that may lead to different emotions, understanding the role of positive emotions (such as hope) in promoting climate action deserves special attention. Finally, although the left-wing orientation of the demonstrators found support in previous studies (Clements, 2012; McCright & Xiao, 2014), it should be recalled that four left-wing political parties were listed as supporters of the demonstrations, which may have influenced the results. The results should be considered with caution and properly contextualized, as the context for the demonstrations researched

was quite left-wing. Further research should test the role of moral motivation and identification as environmentalist in different protests, and more diverse political ideologies.

It is also possible that a self-selection bias (Walgrave & Verhulst, 2011) has occurred in the demonstrators' sample, as around 50 demonstrators started the questionnaire but did not finish it. Nevertheless, in regard to the self-selection bias, considering that one of our goals was precisely to identify which variables differentiate those who participate from those who do not, it might be possible that the self-selection has strengthened the sample: as a homogenous group of highly committed activists. Regarding the non-demonstrators, it should be noted that 33 participants were selected through snowball sampling. Although we have ensured that non-demonstrators could have participated in the demonstrations – but chose not to – this could have interfered with the results. In addition, due to the limited sample size, we have not looked at the type of participants (e.g., occasional vs. regular) (Sabucedo et al., 2017). Such analysis could give us some hints on the predictors of people's engagement in different stages, which may have different antecedents (e.g., Klandermans & van Stekelenburg, 2014).

Another potential limitation is that we did not properly explore the mobilization side of protest in Study 2. Although we have partially looked at this by analyzing the manifestos, the documents analyzed were relatively short and provided limited information. Additionally, a complementary analysis, with participation-observation and interviews with leaders and activists within the movement, would improve the ability to explain the protests. Further studies should also look at the process of framing construction through political ethnography. Such methodological approach could also help to understand the process of framing construction and development and distinguish the framings of SMOs from those of activists and participants with no organizational affiliation (Wahlström et al., 2013).

Furthermore, our studies would achieve a higher potential if we had linked Studies 1 and 2 better, for example, by including in Study 1 questions related to the manifestos. Additionally, further research should look at how dimensions of place attachment and place identity (Devine-Wright, 2013) may relate to collective action in climate change. These dimensions seemed to be important in diagnostic and prognostic framing processes, and they may have an important role in explaining individual participation in collective action in climate change. Overall, we would like to emphasize the need for comprehensive, mixed-method and interconnected studies, in order to understand the relationship between individual motives to engage in collective action and the mobilization side of protest (Snow, 2013; Snow et al., 2019). Additionally, it may be important to conduct longitudinal studies to understand how collective action frames (supply and demand size) may change over time (Snow et al., 2019).

Although we were still very exploratory in this research, we believe that our findings support the need for research integrating structural and motivational approaches (van Zomeren, 2016), and that future research should seek to combine both approaches. Despite its limitations, we believe that our study gives important directions for future research on collective action in climate change issues. In particular, our results support the idea of introducing a moral motivation path to achieve a more comprehensive understanding of collective action in the environmental and climate change domains (Mazzoni et al., 2015; van Zomeren et al., 2011; Vilas & Sabucedo, 2012; Sabucedo et al., 2018). The role of moral path is well-supported by the literature in explaining pro-environmental behavior (e.g. Feinberg & Willer, 2013; van der Werff et al., 2013), and our study shows that it may also play a significant role in understanding collective action in climate change issues. However, how the climate movement is constructing politicized collective identities is incompletely answered in our study. It seems that SMOs have been using climate justice as an anchor to mobilize groups and people, by appealing to local and global frames, to the idea of a shared committed identity to collective action ("we will take to the streets"), and by establishing links and connections

between social, political and environmental matters and organizations. However, the biggest challenge might be how to construct and develop a common notion that collective action on climate change is the right and necessary thing to do and what we all should seek to do. Otherwise, we will continue to have a few people actively engaged, but a lack of massive collective action in such issues.

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## Competing Interests

The authors have declared that no competing interests exist.

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## Supplementary Materials

The supplemental materials files contain the questionnaire items used in Study 1, the materials analyzed in Study 2 (Manifesto 1 and 2), and the triangulation findings and materials (Manifesto 3 and 4) (for access see Index of [Supplementary Materials](#) below).

The supplementary files are:

- S1. Questionnaire items
- S2. Full manifestos
- S3. Triangulation findings and materials

## Index of Supplementary Materials

Fernandes-Jesus, M., Lima, M. L., & Sabucedo, J.-M. (2020). *Supplementary materials to "Save the climate! Stop the oil": Actual protest behavior and core framing tasks in the Portuguese climate movement*. PsychOpen.  
<https://doi.org/10.23668/psycharchives.3119>

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