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Agreement with climate change policies: Framing the future and national versus supranational identity

Mauro Bertolotti & Patrizia Catellani

Department of Psychology, Catholic University of Milan, Milan, Italy

Abstract

Through an experiment included in a nationwide survey conducted prior to the 2014 European elections, we investigated whether citizens' agreement with policies dealing with the global issue of climate change depends on how such policies are framed and citizens' identification with the national or supranational entities enacting them. Participants were presented with different versions of a statement proposing investments in renewable energy sources, manipulated in terms of hedonic consequences (benefits of adoption vs adverse effects of non-adoption), regulatory concern (growth vs safety) and policy actor group membership (national vs supranational actor). Participants' national/supranational identification was also measured. Participants' agreement with the policy was stronger for congruently framed messages (i.e. messages framed in terms of positive growth-related consequences and negative safety-related consequences) than for incongruently framed messages. The effect of framing was further enhanced when the policy was attributed to a national or supranational actor with whom participants identified.

Climate change is a global issue threatening our future existence and prosperity as individuals, as members of national and supranational communities and as human beings, too. While several climate change action plans are being proposed and put into action at different levels, particularly in the form of governmental and inter-governmental policies, the psychosocial factors underlying citizens' support for such plans are yet to be investigated in depth. In the present research, we included different versions of a climate change policy message in a nationwide representative survey, to test which version of the message would be more persuasive. We hypothesised that the persuasiveness of a climate change policy would depend on two factors: the congruent framing of the predicted outcomes of the policy and the attribution of the policy to a political actor with whom citizens are identified. This hypothesis connects two separate lines of research into citizens' support for climate change action, namely, research on the effects of message framing of climate change mitigating behaviours and policies (Bertolotti & Catellani, 2014; Davis, 1995; Nisbet, 2009) and research on the role of national, supranational and global identification in facing global concerns (Reese, Berthold, & Steffens, 2012; Reysen & Katzarska-Miller, 2013).

Regarding framing effects, previous research has shown that messages are more persuasive when formulated congruently across different levels of framing (Cesario, Corker, & Jelinek, 2013) and that this is true

also for messages regarding climate change policies (Bertolotti & Catellani, 2014). In the present study, we investigated the previously unexplored interaction between two framing levels, namely, the growth-versus-safety concern addressed by the policy message and the positive-versus-negative hedonic consequences of adoption versus non-adoption of the policy.

Regarding the role of identification, previous research has shown that identification is a key antecedent not only of individuals' commitment to collective action (Thomas, Mavor, & McGarty, 2011; van Zomeren, Postmes, & Spears, 2008) but also of specific beliefs about the issue of climate change (Bliuc et al., 2015). In the present study, in different versions of our manipulated message, the policy was attributed to a national or supranational actor, and participants' national/supranational identity was measured.

NATIONAL AND SUPRANATIONAL RESPONSES TO THE GLOBAL ISSUE OF CLIMATE CHANGE

Climate change action plans are supported and coordinated at an institutional level by policies proposed and enacted either by national governments or by supranational governmental organisations, such as the European Union. The aim of such policies is the reduction of global greenhouse gas emissions and the progressive replacement of fossil fuels with more environmentally

sustainable energy sources. For instance, the European Union's 'Climate and Energy Package' (406/2009/EC) binds member states to implement before 2020 a 20% reduction in greenhouse gas emissions from power production and automotive vehicle use, and a 20% increase in the use of renewable energy sources, compared with 1990 levels. Each member state has subsequently adopted specific national-level policies to comply with European directives.

Discussing and seeking support for climate change policies is particularly challenging, however. Proponents of climate change policies must not only convince people that the measures they propose are an appropriate response to the issue of climate change, but also convince them that the policies will be effectively put into practice by the political actors responsible for them. In the following paragraphs, we will further examine these two key points, focusing on past research on the framing of climate change policies and on how increasingly inclusive identities (national, supranational or global) can affect individuals' attitudes towards global issues and their support for related policies.

FRAMING EFFECTS

Message framing consists in selecting and organising information in ways that provide meaning and attributing a positive or negative valence to it (Entman, 1993; Gamson & Modigliani, 1989; Scheufele, 1999). Framing of climate change mitigation behaviours and policies often involves emphasis on the positive consequences of adopting them or the negative consequences of not adopting them (McDonald, 2013; Nisbet, 2009; Scrase & Ockwell, 2010). Several studies have investigated the effects of message framing on pro-environmental attitudes and behaviours, by manipulating the positive versus negative valence of the message (Davis, 1995; Van de Velde, Verbeke, Popp, & Van Huylenbroeck, 2010), as well as by manipulating other elements of the message content, such as the likelihood (Morton, Rabinovich, Marshall, & Bretschneider, 2011) and the preventability (Spence & Pidgeon, 2010) of the consequences of climate change, or the domain affected by

climate change (e.g. environment protection or economic growth; Bain, Hornsey, Bongiorno, & Jeffries, 2012).

These studies, however, operationalised framing as a mono-dimensional construct, without considering the possible interactions between different levels of message framing. This is what we performed in the present study, drawing on the self-regulatory framework of message framing proposed by Cesario et al. (2013). According to the model, each level of framing connects with different regulatory needs in recipients (Higgins, Shah, & Friedman, 1997; Higgins, 1998). At the first level of framing, *hedonic consequences*, messages describe the effects of the adoption or non-adoption of a suggested behaviour or policy. The second level, *outcome sensitivities*, further differentiates between the description of the consequences of adoption in terms of gain or non-loss and the description of the consequences of non-adoption as loss or non-gain. The third level, *regulatory concern*, regards whether the behaviour or policy addresses the growth-related or safety-related needs of the individual. Finally, the fourth level, *goal-pursuit strategies*, discriminates between messages presenting the proposed behaviour or policy as a means of achieving a desired outcome or of avoiding an undesired one.

Bertolotti and Catellani (2014) investigated the effects on the agreement with climate change policies of three levels of framing (outcome sensitivities, regulatory concern and goal-pursuit strategy). Examples of the framing of climate change policies on these three levels are reported in Table 1. Their findings show that messages promoting climate change policies were more persuasive when they were framed congruently across multiple levels of message framing, that is, when different levels of message framing fitted with each other (e.g. when focusing on the achievement of positive consequences related to growth, or the avoidance of negative consequences related to safety). The interaction of the first level of framing, *hedonic consequences*, with the other levels has not been empirically tested, however. In the present research, we tested whether the hedonic consequences of policy adoption/non-adoption (first level of framing) were differentially persuasive when framed in terms of growth versus safety regulatory concern (third level of framing).

Table 1. Examples of the framing of climate change policies on the goal-pursuit strategy, regulatory concern and outcome sensitivity levels (adapted from Bertolotti & Catellani, 2014)

	Goal-pursuit Strategy			
	Eager Approach Strategy		Vigilant Avoidance Strategy	
	"If we invest in renewable energy sources…"		"If we cut emissions of greenhouse gases…"	
	Outcome Sensitivity		Outcome Sensitivity	
Regulatory Concern	Achievement of Positive Outcomes	Avoidance of Negative Outcomes	Achievement of Positive Outcomes	Avoidance of Negative Outcomes
Growth Concern	"…we will obtain positive economic returns."	"…we will avoid negative economic impacts."	"…we will obtain better climatic conditions."	"…we will avoid worse climatic conditions."
Safety Concern	"…we will obtain reduced energy costs."	"…we will avoid increased energy costs."	"…we will obtain reduced effects of natural disasters."	"…we will avoid increased effects of natural disasters."

IDENTIFICATION WITH NATIONAL AND SUPRANATIONAL ACTORS

In addition to the framing effects described earlier, in the present research, we expected that identification with the actor to whom climate change policies are attributed would influence agreement with these policies. As discussed earlier, because of the global nature of this issue, climate change policies usually require the commitment of both national and supranational actors. In Bertolotti and Catellani's (2014) experiments, policy messages were attributed to a generic fictional political candidate, without any clues about who would actually implement such policies. In the present research, the actor implementing the policy was explicitly presented as a national or supranational entity. We expected that the effect of the policy actor group membership on participants' agreement with the policy would depend on participants' national and supranational identity.

National/supranational identity has been investigated, both in social psychology and recently in other disciplines (Mols & Weber, 2013), within the framework of the social identity theory (Tajfel & Turner, 1979) and the self-categorisation theory (SCT; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). SCT postulates the existence of hierarchically ordinated identities, ranging from individual identity, to group identity, to a global inclusive human identity (McFarland, Webb, & Brown, 2012). Further research showed that people can see themselves as part of multiple groups at the same time (Dovidio, Gaertner, & Kafati, 2000; Eller & Abrams, 2004), identifying with their local or regional communities, with their nations and with even larger entities, at a continental or global level, thus approaching the human identity level postulated by the SCT. Such identities are hierarchically ordinated or 'nested' (Huici et al., 1997; Klandermans, Sabucedo, & Rodriguez, 2004). In fact, several studies undertaken in different European countries showed that people feel strong identification simultaneously with their region, their nation, and with Europe as a whole (inter alia Castano, 2004; Citrin & Sides, 2004; Pichler, 2008). Recent research indicates that inclusive identification, in particular the most inclusive level of identification with all humanity (McFarland et al., 2012; Reese, Proch, & Finn, 2015), is a strong predictor of concern for global issues (Reysen & Katzarska-Miller, 2013), reconciliation after historical collective violence (Greenaway, Quinn, & Louis, 2011), contribution to global cooperation efforts (Buchan et al., 2011), intentions to act against global inequalities (Reese et al., 2012; Reese, Proch, & Cohrs, 2014) and ethical consumerism (Reese & Kohlmann, 2015).

Identification with a group entails not only recognising a common background but also sharing common goals with other members of the group and its leaders. The salience of group membership depends on the extent to which social categories explain similarities and differences among individuals, that is, comparative fit, and are consistent with one's expectations and motivations, that is, normative fit (Abrams, Wetherell,

Cochrane, Hogg, & Turner, 1990; Reicher, Spears, & Haslam, 2010; van Rijswijk, Haslam, & Ellemers, 2006). When self-categorisation within a certain group is salient and accessible, it can exert a powerful influence on an individual's attitudes and behaviours. The group membership of the source of a persuasive message is a strong predictor of attitude change (Hogg & Smith, 2007; McGarty, Haslam, Hutchinson, & Turner, 1994), as people are more inclined to agree with members of their ingroup, with whom they share common characteristics, beliefs and motivations, than with members of other groups. This is particularly evident in the political context, where group membership is chronically salient (Cohen, 2003). Recent research on attitudes towards climate change (Bliuc et al., 2015) indicates that differences between the so-called 'climate sceptics' and 'climate believers' (Whitmarsh, 2011) are deeply rooted in conflicting identities and fuelled by the increasing polarisation in political discourse on climate change (McCright & Dunlap, 2011; Postmes, 2015).

Identification plays a significant role also in individuals' intention to engage in collective action. When the members of a group perceive a problem as a collective rather than an individual issue, their intention to act is influenced by group efficacy beliefs, such as the belief that group goals can be achieved through joint effort (Klandermans, 1997; Mummendey, Kessler, Klink, & Mielke, 1999; Van Zomeren, Spears, Fischer, & Leach, 2004). Recent models of the psychosocial antecedents of collective action (Sturmer & Simon, 2004; van Zomeren et al., 2008) consider identification as a key predictor of individual motivation to participate. Several studies (see van Zomeren et al., 2008 for a meta-analysis) indicate that group identification is dynamically related to the different pathways that lead to support for collective action, namely, the perception of injustice or disadvantage and the perception of group efficacy (Thomas et al., 2011). This applies to a range of varieties of collective action, including collective pro-environmental behaviour (Van Zomeren, 2014) and engagement with pro-environmental movements. The more individuals see themselves as part of a social group, the more they perceive such a group to be able to pursue effectively its goals and attain the desired change. Research on organisational contexts found that group identification exerted a positive influence on group potency or group efficacy (Guzzo, Yost, Campbell, & Shea, 1993; Lee, Tinsley, & Bobko, 2002). Research on trust in governments (Bouckaert, Van de Walle, Maddens, & Kampen, 2002) and supranational organisations (De Vries & Van Kersbergen, 2007; Hewstone, 2011; McLaren, 2002) showed that people who strongly identify with national or supranational institutions are also more optimistic about their potential achievements compared with people with little identification or trust.

On the basis of these results, we propose that individuals who evaluate a statement regarding a given policy (in our case a climate change policy) consider not only whether the policy is sound and feasible but also whether the actor implementing it is capable of putting

it into action. In so doing, they are influenced by their degree of identification with such an actor, perceiving an actor with whom they share common group membership to be more likely to succeed than an actor they perceive as distant and unrelated to themselves. We therefore hypothesised that the persuasiveness of a congruently framed message would be further increased by shared group membership, in terms of national or supranational identity, with the actor of the proposed policy.

HYPOTHESES

In the present research, we included an experimental manipulation of a statement supporting a climate change policy in a nationwide survey, in order to test whether message framing and identification with the national or supranational actor evoked in the statement would influence participants' agreement with the policy.

We expected participants' agreement with the proposed policy to be stronger when the message was framed congruently across different levels of framing than when the message was framed incongruently. More specifically, we expected messages presenting the positive hedonic consequences of policy adoption in terms of growth, and messages presenting the negative hedonic consequences of non-adoption in terms of safety, to result in stronger agreement than messages presenting the positive hedonic consequences of policy adoption in terms of safety, and messages presenting the negative hedonic consequences of policy non-adoption in terms of growth. This would be the case because the description of the positive consequences of policy adoption (or the negative consequences of non-adoption) fits the growth (or safety) regulatory concern raised by the message, thereby providing a more complete and convincing set of arguments than other combinations.

As for the political actor to whom the policy is attributed, despite climate change being a global issue, we did not expect messages attributing the policy to a supranational actor (i.e. Europe) to be intrinsically more persuasive than messages attributing the policy to a national actor (i.e. Italy). We expected participants' national/supranational identity to influence their perceptions of which actor would be more capable of dealing with the issue, leading participants with a dual or supranational identity to attribute the issue to a supranational actor more frequently than participants with a predominantly national identity. As a consequence, we expected participants' national/supranational identification to moderate the effect of the policy actor group membership on participants' agreement with the message. In the case of participants with a predominantly supranational identity, agreement with the message would be stronger where the policy was attributed to Europe than where it was attributed to Italy. Conversely, in the case of participants with a predominantly national identity, agreement with the message would be stronger where the policy was attributed to Italy than where it was attributed to Europe.

Finally, we expected that the interaction between the actor's group membership and participants' identification would be more evident for congruently framed messages than for incongruently framed messages, because under these conditions, the policy would both be perceived as convincing and it would be attributed to an actor perceived to be capable of its implementation.

METHOD

Participants

We analysed data from the ITANES[1] nationwide panel survey on a large ($N = 3244$) representative sample of Italian voters. In April–May 2014, before the European Parliamentary elections, participants were contacted and asked to respond to a web-based questionnaire, which included the experimental manipulation of a climate change policy message, along with the other measures used in the present research.

Procedure and Measures

A subset of the ITANES survey participants ($n = 1618$) was randomly subdivided and assigned to eight different experimental conditions in which they were presented with different versions of a statement supporting investments in renewable energy sources. Statements were manipulated according to three factors: the group membership of the actor to whom the policy was attributed, either national (Italy) or supranational (Europe), the regulatory concern addressed by the policy, either growth or safety, and the hedonic consequences of policy adoption (positive consequences) or non-adoption (negative consequences). Given the content of the policy, the manipulation of growth versus safety framing was applied to a single domain, namely, the effects of the policy on economic matters, thus citing the pursuit of returns on investments as a growth concern, and control of energy costs as a safety concern. This was performed to maintain consistency across all experimental conditions and avoid potential confounds deriving from the frequent association of other domains, such as natural disasters or pollution, with safety concerns (Hulme, 2008; McDonald, 2013). All manipulated statements were formulated in prefactual terms ('If…then….', Gleicher et al., 1995; Sanna, 1996). The manipulated statements therefore highlighted the positive consequences of policy adoption in terms of growth ('If Italy/Europe invests in renewable energy sources such as solar and wind power, there will be positive returns in terms of economic development') or safety ('If Italy/Europe invests in renewable energy sources such as solar and wind power, the cost of energy will reduce'), or they could highlight the negative consequences of non-adoption, either in terms of growth

('If Italy/Europe does not invest in renewable energy sources such as solar and wind power, there will be negative returns in terms of economic development') or safety ('If Italy/Europe does not invest in renewable energy sources such as solar and wind power, the cost of energy will increase'). Participants were equally and randomly assigned to one of the eight experimental conditions resulting from the combination of the three manipulated variables.

Agreement with the Proposed Energy Policy

After reading the manipulated policy statement, participants were asked to report their agreement with the statement on an 11-point scale ranging from 0 ('*completely disagree*') to 10 ('*completely agree*'). To avoid any possible unwanted effects of policy message manipulation, the items assessing further measures used in this study were placed in different sections of the survey questionnaire.

Attribution of the Energy Issue to Political Actors

Participants were also asked to indicate which political actor they deemed to be the most capable of dealing with the energy issue. Response options included four possible actors (Europe, Italy, enterprises and citizens). Participants could also alternatively select 'there is no difference' or 'none of these is able to deal with the issue'.

National/Supranational Identity

National/supranational identity was measured using an adapted version of the 'Moreno question' (Moreno, 2006). Participants were asked to complete the statement 'You see yourself as...' with one of the following five options: 'only Italian', 'more Italian than European', 'both Italian and European', 'more European than Italian' and 'only European'. Participants could choose from two further options, namely, 'none of these' and 'I don't know'.

RESULTS

Participants' National/Supranational Identity

We first analysed participants' distribution as regards their national/supranational identity. 18.2% of participants declared seeing themselves as only Italian, 25.3% declared seeing themselves as more Italian than European, 34.5% declared seeing themselves as both Italian and European and only 8.8% and 2.3% declared seeing themselves as respectively more European than Italian and only European. Of the remaining 11% of participants, 8.2% declared seeing themselves as neither Italian nor European and 2.8% did not respond. These results were in line with previous findings on national/supranational identity in Italy (Serricchio, 2010).

### Attribution of the Energy Issue to Political Actors

We then analysed how participants' national/supranational identity influenced their opinion on which political actor was the most suitable to deal with the energy issue. To do this, we compared the distribution of choices among three groups: participants with a prevailingly national identity ($n = 703$), participants with a dual national and supranational identity ($n = 558$) and participants with a predominantly supranational identity ($n = 179$). Chi-squared tests showed a significant association between identity and the choice of the actor perceived to be the most able to deal with the energy issue, $\chi^2(10, N = 1140) = 69.97, p < .001$. The full distribution of participants' choices among the three subgroups is reported in Table 2. In general, Europe was chosen more often than Italy as the actor best suited to deal with the issue but, as we hypothesised, participants with a dual or predominantly supranational identity were significantly more likely than participants with a predominantly national identity to choose Europe. In addition, we found that participants with a predominantly national identity were more likely than other participants to declare that none of the actors were capable of dealing with the energy issue.

Effects of Message Framing and Policy Actor Group Membership on the Agreement with Energy Policy Messages

A further goal of our research was to assess whether two different levels of message framing and the attribution of the energy policy to a national or supranational actor would influence participants' agreement with the message. First, a 2 (policy actor group membership: national vs supranational) × 2 (message regulatory concern: safety vs growth) × 2 (message hedonic consequences: positive consequences of adoption vs negative consequences of non-adoption) between-subject ANOVA was performed on the agreement score. No main effects of policy actor membership, $F(1,1542) = 0.11, p = .738, \eta^2 = .001$, message regulatory concern, $F(1,1542) = 1.05, p = .882, \eta^2 < .001$ or hedonic consequences, $F(1,1542) = 0.02, p = .307, \eta^2 < .001$, were found. A significant interaction between message regulatory concern and hedonic consequences emerged, $F(1,1542) = 7.02, p = .008, \eta^2 = .005$, as shown in Figure 1. Follow-up t-tests showed that participants' agreement was higher when the message presented the positive consequences of policy adoption in terms of growth ($M = 8.18, SD = 2.32$) compared with when the message presented the negative consequences of non-adoption in terms of growth ($M = 7.84, SD = 2.36$), $t(767) = 2.04, p = .04$. Conversely, participants' agreement was higher when the message presented the negative consequences of non-adoption in terms of safety ($M = 8.13, SD = 2.55$) compared with when the message presented the positive consequences of adoption in terms of safety ($M = 7.81, SD = 2.48$), $t(779) = 1.73, p = .08$. No further two-way or three-way

Table 2. Distribution of participants' choices of the most capable actor to deal with the energy issue as a function of national/supranational identity

Actor most capable to deal with the energy issue		Identity			
		Prevailingly Italian	Italian and European	Prevailingly European	Total
Europe	N	183	247	72	502
	Percentage (%)	26.0	44.3	40.2	34.9
	Resid.	−6.9	6.0	1.6	
Italy	N	58	34	13	105
	Percentage (%)	8.3	6.1	7.3	7.3
	Resid.	1.4	−1.4	0.0	
Enterprises	N	149	61	31	241
	Percentage (%)	21.2	10.9	17.3	16.7
	Resid.	4.4	−4.7	0.2	
Citizens	N	95	87	29	211
	Percentage (%)	13.5	15.6	16.2	14.7
	Resid.	−1.2	0.8	0.6	
Any	N	105	73	22	200
	Percentage (%)	14.9	13.1	12.3	13.9
	Resid.	1.1	−0.7	−0.7	
None	N	113	56	12	181
	Percentage (%)	16.1	10.0	6.7	12.6
	Resid.	3.9	−2.3	−2.5	
Total	N	703	558	179	1440
	Percentage (%)	100.0	100.0	100.0	100.0
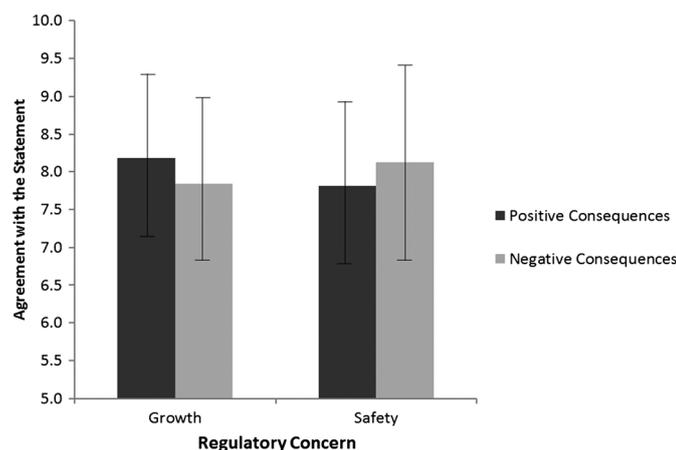
Fig. 1: Agreement with the policy statement as a function of hedonic consequences and regulatory concern

interactions between the manipulated variables emerged, $F(1,1542) < 2.3$, $p > .129$, $\eta^2 < .001$.

In summary, the results of the ANOVA with the three manipulated variables showed that two of them (i.e. regulatory concern and hedonic consequences) had a significant effect on agreement, but only when they interacted. The third manipulated variable, that is, the group membership of the policy actor, had no significant influence on agreement with the policy. We therefore proceeded to test our hypothesis on its interaction with participants' national/supranational identity.

Effects of Message Framing, Policy Actor Group Membership and Participants' Identification on the Agreement with Energy Policy Messages

We expected that participants who saw themselves as exclusively or predominantly Italian would show

stronger agreement with the message attributing the energy policy to Italy, whereas participants who saw themselves as both Italian and European, predominantly European, or exclusively European, would show stronger agreement with the message attributing the energy policy to Europe. To test this hypothesis, we carried out a hierarchical linear regression analysis, in which we regressed agreement with the policy on message framing, policy actor group membership and participants' identity (centred on the average score of $M = 2.54$, so that negative values would indicate predominantly Italian identity and positive values would indicate predominantly European identity) and their two-way and three-way interaction (computed as the product of the above predictors). Message framing was contrast-coded by assigning +1 to congruently framed messages, that is, messages with a growth concern presenting the consequences of policy adoption and messages with a safety concern presenting the

consequences of non-adoption, and −1 to incongruently framed messages, that is, messages with a growth concern presenting the consequences of non-adoption and messages with a safety concern presenting the consequences of adoption. Policy actor group membership was contrast-coded by assigning +1 to messages attributing the policy to a supranational actor and −1 to messages attributing the policy to a national actor.

Results showed that in addition to the effect of frame congruency, $\beta = .082$, $t(1395) = 3.11$, $p = .002$, national/supranational identity had a significant independent effect on participants' agreement with the policy statement, $\beta = .076$, $t(1395) = 2.88$, $p = .004$, indicating that participants with a dual or predominantly supranational identity agreed more with the statement than participants with a predominantly national identity. No significant effect of policy actor group membership, $\beta = −.029$, $t(1395) = 1.10$, $p = .271$, or of its interaction with participant identity, $\beta = .052$, $t(1395) = 1.95$, $p = .052$, was found, but a significant three-way interaction emerged, $\beta = .084$, $t(1395) = 3.16$, $p = .002$. No further significant effects were found, $ts < 1.10$, $ps > .271$. The overall model was significant, $F(6, 1396) = 5.66$, $p < .001$, albeit with small predictive power, $R^2 = .025$.

We probed the three-way interaction by performing separate regressions for congruently framed messages and incongruently framed messages. In the first regression analysis (Figure 2, left-hand panel) on the agreement with congruently framed messages, a strong identity-by-actor group membership interaction effect emerged, $\beta = .138$, $t(701) = 3.69$, $p < .001$, with no significant effects of the policy actor group membership, $\beta = .010$, $t(701) = 0.27$, $p = .785$, or participants' identity, $\beta = .068$, $t(701) = 1.81$, $p = .07$. Simple slope analyses showed that when the policy was attributed to a national actor (Italy), participants' national/supranational identity only had a weak influence on agreement, $\beta = −.069$, $t(338) = 1.27$, $p = .206$, whereas when the policy was attributed to a supranational actor (Europe), participants' national/supranational identity had a strong positive effect on agreement, $\beta = .209$, $t(362) = 4.07$,

$p < .001$. This indicated that whereas congruently framed messages attributing the policy to a national actor were similarly persuasive for all participants, congruently framed messages attributing the policy to a supranational actor were considerably more persuasive for participants who had a dual or predominantly supranational identity than for participants with a predominantly national identity. The second regression analysis (Figure 2, right-hand panel), focused on the agreement with incongruently framed messages, showed a significant effect of participants' identity, $\beta = .084$, $t(693) = 2.25$, $p = .026$, but no significant effects of either the policy actor group membership, $\beta = −.07$, $t(693) = 1.84$, $p = .066$, or the interaction between policy actor and participants' identity, $\beta = −.032$, $t(693) = 0.85$, $p = .398$.

In sum, our results showed that congruently framed messages (i.e. those highlighting the positive hedonic consequences of policy adoption in terms of growth or the negative hedonic consequences of policy non-adoption in terms of safety) were more persuasive than incongruently framed messages, which was consistent with our hypothesis. We also found that participants' agreement was strongest when the policy was attributed to an actor with whom participants identified (i.e. Italy for participants with a predominantly national identity, Europe for participants with a dual or predominantly supranational identity), but only when the message was congruently framed. This was particularly evident for participants with a dual or supranational identity, whereas participants with a predominantly national identity were less sensitive to differences in policy attribution, possibly because they had a generally lower propensity for these kinds of policy.

DISCUSSION

Our results, based on data obtained from a panel survey on a representative nationwide sample, contribute to understanding of how message framing and identification with supranational political actors can drive support for policies dealing with global issues such as climate change.
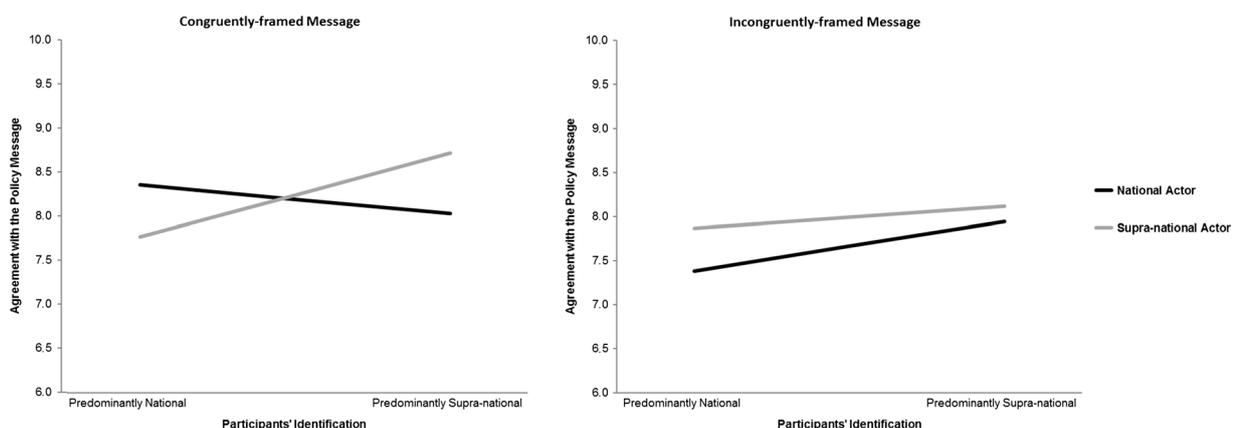
Fig. 2: Agreement with congruently framed policy statements (left-hand panel) and incongruently framed policy statements (right-hand panel) as a function of policy actor group membership and participants' national/supranational identity

Participants' identification with a supranational actor enhanced the persuasive effect of the message, which was positively affected by the fit between two different levels of framing: hedonic consequences, that is, the focus on the positive consequences of policy adoption versus the negative consequences of policy non-adoption, and regulatory concern, that is, the focus on growth-related versus safety-related consequences. These results advance previous research on the effects of framing messages on climate change on several respects.

First, our results show that messages about climate change that were congruently framed in terms of hedonic consequences and regulatory concern were more persuasive than messages that were incongruently framed. This finding extends previous research on the persuasiveness of congruently framed messages on climate change policies (Bertolotti & Catellani, 2014), which explored the interaction between the hedonic consequences level and the regulatory concern level, which had not been investigated before. Secondly, we were able to test the effects of congruent message framing on a national representative sample, thanks to a rare opportunity to include an experiment within a nationwide electoral survey. To our knowledge, this is the first time that framing effects have been tested on policy messages using this technique for such a large number of participants. The small effect sizes found in our study, however, indicate that message framing has only a limited influence on individuals' attitudes towards the issue. Although this is a known difference between laboratory and 'field' experiments (Jerit, Barabas, & Clifford, 2013), our findings should be nevertheless taken with some caution. In fact, several unaccounted factors might interfere with participants' attentiveness and sensitivity to framing manipulations. Research on news framing found that individuals with intermediate levels of political knowledge are more influenced by message framing than those with high or low levels of knowledge, and that such effect tends to become stronger over time (Lechler & de Vreese, 2011).

A third important innovation in the present research compared with previous research on framing effects is that we included a manipulation of the national versus supranational group membership of the actor quoted in the message. Results showed that participants' identification with the actor cited in the message increased their agreement with the policy, but only when the message was framed congruently across the aforementioned levels of framing. These results extend our understanding of framing effects in policy messages, by showing that receivers evaluate a policy according to *how* it is presented, as well as to *who* will implement it on their behalf. If a policy is deemed convincing and feasible (as in the case of a policy presented through a congruently framed message), then common group membership with the political actor responsible for it can lead to positive expectations regarding its implementation.

This result also contributes to our understanding of persuasion in a social identity perspective. We know

from past research that common group identification promotes social influence (Platow, van Knippenberg, Haslam, van Knippenberg, & Spears, 2006). This, however, does not mean that shared group identity with the source or other actors involved in a persuasive message necessarily results in the acceptance of the message content. When individuals evaluate a message, for instance, when they estimate the feasibility and desirability of the outcomes of a proposed policy, incongruent framing seems to negatively affect their expectations, regardless of the group membership of the actor. This might suggest that even when they speak to their own followers, leaders should take care of the way they present their goals, preferring simple and coherent exposition over complex and multifaceted arguments that may make their audience less easily persuaded. Future research might explore further scenarios and conditions in which framing effects enhance or inhibit the persuasiveness of ingroup sources.

Our results regarding the importance of dual and supranational identity in the agreement with climate change policies are also consistent with research on the role of identity in negotiations on climate change policies at the intergovernmental level. As noted by Batalha and Reynolds (2012), the structure of climate change summits often emphasises diverging interests instead of promoting cooperation among parties. Therefore, making dual and supranational identifications salient might be instrumental both in negotiating effective global policies dealing with climate change and other issues, and in gaining public support for them through communication (see also Haslam, Eggiins, & Reynolds, 2003).

In our study, the manipulation of policy actors and the measure of participants' identification were limited to the national/European dichotomy. This choice was made out of convenience, because of the correspondence of the survey with the European elections of 2014. Future research should investigate whether the interaction between the policy actor and recipients' identification applies to a wider range of cases. It is possible that the attribution of climate change policies to global institutions, such as the UN-driven Intergovernmental Panel on Climate Change (IPCC), would appeal to individuals with a pronounced global identity. We should also consider, however, that as the IPCC reports and the UN summit decisions derive from a tangle of diplomatic compromises and complex technicalities, these actors might be perceived as having little control over the actual enforcement of the policies they propose, whereas national governments might be perceived to have a more tangible power over their affairs. Nevertheless, our results regarding the actors perceived to be most capable of dealing with the issue of energy suggest that further non-institutional actors, such as individual citizens and enterprises, could also be considered for this purpose.

In addition to taking into account further levels of supranational identification, future research could measure the strength of each identification level. Because of the limited space available for our questions in the

nationwide survey questionnaire employed in the present research, we only measured the presence of different types of identification, without assessing the respective strength. Future research could address this limitation.

In sum, our results provide some practical suggestions on how to communicate effectively climate change policies. First, politicians and advocates of climate change action should use messages that congruently frame information about the policies across different levels of framing, for example, by focusing their communication on the positive consequences of climate change policies in terms of growth. Secondly, citizens with a strong national identity might perceive international cooperative efforts to cut carbon emissions and increase the use of renewable energy sources as an external intrusion in national affairs. Communication on climate change policies aimed at these citizens, who also tend to be climate sceptics (Hornsey, Fielding, McStay, Reser, & Bradley, 2015), might therefore emphasise the national dimension of climate mitigation efforts, focusing on national plans to deal with this issue and on the local environmental, social and economic benefits deriving from their adoption. It is interesting to note that in our survey, participants with a predominantly national identity did not necessarily choose their nation as the most capable actor, but they were more likely than other participants to attribute the issue to non istitutional actors (such as enterprises) or to declare that none could effectively deal with the problem. Therefore, whereas a dual or supranational identity seems to be connected with the understanding that global problems are better dealt with cooperatively at a continental or global level, people without such an inclusive identity seem to have a less clear idea of how to deal with these problems. Communication about climate change policies should consequently focus on how different actors can deal with the effects of climate change each in its own capacity, for example, by promoting local climate resilience and adaptation (Ockwell, Whitmarsh, & O'Neill, 2009; Whitmarsh, O'Neill, & Lorenzoni, 2013) or national plans for transition to sustainable energy sources (Leiserowitz, Kates, & Parris, 2006; Owens & Driffill, 2008), alongside supranational and global policies.

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