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It's Political: How the Salience of One's Political Identity Changes Climate Change Beliefs and Policy Support

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Previous research has demonstrated a striking difference in climate change beliefs and policy support between people who identify with the right-wing of politics and with the left-wing of politics. But are we destined to continue with this divergence? We suggest that there is movement around these differences based on the politicization of climate change and we conducted two experimental studies with 126 and 646 people, respectively, to examine this effect. We found that those people whose political identity was made salient were less likely to believe in an anthropogenic cause of climate change and less likely to support government climate change policies than those whose identity was not made salient; particularly when those people were aligned with the right-wing of politics. The results demonstrate the importance of the salience of one's political identity in determining attitudes and beliefs even for scientific facts such as climate change. Our research also identifies some ways forward in dealing with climate change based on depoliticizing the issue.

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1. Introduction

Research shows that a person's political orientation affects their beliefs about climate change: Those on the left-wing of politics (e.g., Democrats in the US and Labor supporters in the UK and Australia) are more likely to accept the reality of anthropogenic climate change than those on the right-wing of politics (e.g., US Republican and UK/Australian Conservative supporters) (Dunlap and McCright, 2008, McCright and Dunlap, 2011, Fielding et al., 2012,

McCright, 2011, Poortinga et al., 2011). But how does such a divergence occur and is it immutable? We suggest that it is the salience of one's political social identity that creates the disparity between left and right-wing supporters—that the politicization of climate change affects one's belief about the cause of climate change and one's support for policies to deal with it. Thus, we should be able to affect this disparity by making a person's political identity salient. This research aims to demonstrate this effect in the politicized

realm of climate change and therefore to highlight possible interventions.

The politicization of climate change has often been suggested to be at the heart of the decline in public support for dealing with climate change (e.g., Hart and Nisbet, 2012, McCright and Dunlap, 2011) but, to date, no one has tested that premise experimentally. Correlational studies have found that, at a country-level, the attitudes of the political leaders were related to citizen's environmental attitudes (Yin, 1999), and that, over time, public support co-varies with elite cues from politicians about their environmental beliefs (Brulle et al., 2012) and economic uncertainty (Brulle et al., 2012, Scruggs and Benegal, 2012). In the current study we conduct experimental research that tests the causal relationship between political identity salience and climate change beliefs and attitudes. While political identification has been shown to affect attitudes for obvious political issues such as welfare reform, health care reform and affirmative action (e.g., Dancey and Goren, 2010), to our knowledge little research has experimentally tested the relationship between political identity and science-based issues such as climate change. We draw on social identity theory (Tajfel and Turner, 1986) as the theoretical basis for this relationship and show how making identity salient can influence attitudes and beliefs around a scientific, fact-based argument.

1.1 Social identity and political identity salience

We base our argument for politicisation on the social identity approach that encompasses social identity theory and self-categorization theory. Attitudes and beliefs are affected by the social groups to which one belongs (Tajfel and Turner, 1986, Turner et al., 1994), sometimes to an even greater extent than by our own personal identity (Onorato and Turner, 2004). The social identity approach proposes that when a person consciously identifies with a group, they take on the known characteristics and beliefs of that group (Ashforth and Mael, 1989, Tajfel and Turner, 1986, Hornsey, 2008). Social identities may be more or less chronically salient but cues from the social context can heighten the salience of a social identity (Turner et al., 1994). The provision of comparative information about relevant outgroups (e.g., Haslam et al., 1995, Rabinovich et al., 2012, Tarrant and Butler, 2011) and questions that prime people to focus on a particular identity (e.g., Haslam et al., 1999) are examples of contextual cues that can make identity salient. When a particular social identity becomes salient, the norms of that identity provide guidance about how to think, feel, and act (Hornsey, 2008), especially when people are highly identified with that identity (Fielding et al., 2008, Terry et al., 1999, Ellemers et al., 1999). Thus, the salience of a social identity is a particular form of priming that goes beyond simple attitude accessibility (Tversky and Kahneman, 1974, Krosnick and Kinder, 1990).

This theoretical perspective has been extended to the political domain (see Huddy, 2001) where research has shown that the strength of political identity influences judgements of political ingroup and outgroup members (Morton et al., 2007, Kelly, 1989),

that the salience of regional identity is related to the interpretation of political developments (Huici, Cano, Hopkins, Emler, & Carmona, 1997), and that making a superordinate national identity salient can increase acceptance of policies that favour minority sub-groups (Transue, 2007). Cohen (2003) provides a particularly vivid example of how political identity salience can transform attitudes: In his study highly identified Democrat and Republican supporters were more likely to endorse a welfare policy that was supported by the majority of their party members, even when the policy was antithetical to their own beliefs or the party's broader value system. Situational political cues exist throughout everyday life in the media, workplaces, social discussions and so forth; and as such, one's political identity is likely to often be made salient.

We propose that the social identity perspective offers a theoretically plausible explanation for the processes operating in the political landscape whereby people's responses to the scientific facts of climate change are guided by the attitudes and expressed positions of their political party elites. There is little understanding of climate science in the general community and therefore knowledge and understanding of global climate change is often flawed (Sunblad et al., 2009, Bord et al., 2000). One way people can deal with their lack of knowledge is to look for cues from associated political elites. In other words, when a person identifies with a political party that is clearly against climate change mitigation and adaptation he or she will hold beliefs that align with that political party. On the other

hand, if he or she identifies with a political party that is in support of climate change mitigation and adaptation then he/she will also be more likely to support this position on climate change individually. However, identities are not fixed and may change in response to input from the social context. When talking to your child, your identity as a parent is likely to be salient; when thinking about statistical analyses your researcher identity is likely to be salient. Based on this perspective, we propose that the divergence in climate change beliefs and support along party lines can change and that it will increase when people's political identities are salient. More specifically, we hypothesise that when people's political identity is salient they are more likely to present beliefs about climate change that are in line with their political orientation than when their political identity is not salient.

A promising aspect of the social identity analysis of the politicization of climate change is the potential for change. According to the social identity perspective, if the normative stance of a political party changes, this will in turn change the opinions and beliefs of those who identify with the political party. Conceptualizing the politicization of climate change in social identity terms therefore highlights the malleability of climate change beliefs and suggests avenues for change.

To demonstrate the effect of political identity salience on responses to climate change we conducted two studies that examined the hypothesis that political identity salience will influence climate change beliefs and support for policies that address climate change. In both studies, we made people's political identity salient and reminded them of the different stance (i.e., the normative positions) taken by the two main political groups in Australia. The first study drew on a university student sample to investigate the effect of making the students' political identities salient on their beliefs about anthropogenic climate change. We then conducted a second study to replicate and generalise the findings to a much broader segment of the Australian population and to extend the results to look not only at climate change beliefs but also at the effects on support for climate change policies. Showing that beliefs about climate change and support for climate change policy are different depending on the salience of political identity is critical as it suggests the potential for change and the possibility that climate change attitudes could become less polarized with reduced politicization.

1.1 Study Context

In the Australian context, there is striking political partisanship around climate change beliefs and mitigation support, particularly in the more conservative parties. In recent years, those in the Labor party (centre leftoriented) have shown a belief in anthropogenic climate change but the language they have used around the need to mitigate climate change has lessened somewhat following a media backlash. On the other side of politics, the beliefs are much stronger: The conservative parties have avowed that they will abolish the carbon pricing scheme introduced by the previously governing Labor party and the leadership of the party still expresses doubts around the science of climate change. Given this partisanship we hypothesise that people who identify with the right will be less likely to attribute climate change to human causes and

less likely to support climate change policies when their political identity is salient compared to those for whom political identity is not salient. In contrast, people who identify with the left whose political identity is made salient will be more likely to attribute climate change to human causes and be more likely to support climate change policies compared to those whose political identity is not salient.

2. Study 1

2.1 Methods

2.1.1 Participants

One hundred and twenty-six university students participated in the study. The sample was 56.8% male, with a mean age of 18.9 years (and a standard deviation of 2.2 years). Political orientation varied across participants: 28.1% said that their most dominant political orientation was with the Labor Party (centre-left wing); 47.5% aligned with the Liberal Party (right wing); 7.2% aligned with the Greens Party (left wing); 3.6% aligned with Independents; and 2.9% aligned with the National Party (rural right wing).

2.1.2 Procedure and Measures

At the beginning of the experiment (and prior to the political identity salience manipulation for the experimental condition) participants were asked about their environmental attitude with the question: "How important to you is protecting the environment?" Participants responded on a five point scale from 1 (Not at all) to 5 (A great deal). This question was one of a number of other questions assessing life goals

(e.g., How important to you is not standing out from the crowd?) and thus the inclusion of the question was unlikely to have caused any environmental or political priming. This question served as a control for environmental values.

Participants were then randomly allocated to one of two conditions: a control group in which political identity was not made salient or an experimental group in which political identity was made salient. There was no discussion of politics or political identity for the control group before the questions about climate change. In the experimental condition, we manipulated social identity salience based on established methods from social psychology (Mirisola et al., 2007; Reynolds, Turner, Haslam, & Ryan, 2001). Specifically, we asked participants, "In this study we are interested in the opinions of different people concerning climate change. In particular, the aim of this section is to make comparisons between those who support the Liberal or Nationals parties, and those who support the Labor or Green parties. First, we are interested in what characteristics describe people who support the Liberal or Nationals parties compared to people who support the Labor or Green parties. What are three words that characterise people who support the Liberal or National parties? What are three words that characterise people who support the Labor or Green parties?" We than asked them, "If you had to choose, who would you say you supported most?" and participants were given the option of either "Liberal or National parties" or "Labor or Greens parties". This political identity salience manipulation proved to be strong with the

adjectives used to describe the two parties being extremely polarised, for example: "have a brain" for right-wing and "uneducated mungbean hippies" for left wing; and "unfortunate, mislead, uninformed" for right-wing and "considerate, thoughtful, forward-thinking" for left-wing.

Any participants who did not write down three words for each party or who did not know/not care which party they identified with were deemed not to have participated in the political identity salience manipulation and were omitted from the analyses. This resulted in 11 people being omitted from the analyses.

To ensure that all participants were fully aware of the stance taken by their political parties we also included a short paragraph describing the stances on climate change policy taken by both the Labor Party (centreleft party who were in government at the time of the research) and by the coalition of the Liberal and National Parties (who were in opposition at the time of the research). These statements were taken from information that was on the Parties' websites in February 2013. The additional information was as follows:

"There is currently a great deal of debate amongst politicians regarding climate change and the policies surrounding it. The Labor Government believes that humans are at least partly to blame for climate change. They have put a price on carbon and have policies for reducing pollution and making power stations cleaner, giving tax breaks for green buildings and setting emissions standards for cars, amongst others. As reported in the media, some members of the Liberal Party have said that they do not believe in the

existence of climate change or that humans contribute to it; but other members of the Liberal Party have said that they do believe that humans contribute to climate change. The Coalition's policy on climate change is centred on local actions, such as funding for planting trees and solar homes, solar schools and solar towns. The Coalition has a policy of scrapping the price on carbon if it is elected to government."

At the end of the experiment we asked participants in both the experimental and control conditions, "How much do you think humans contribute to/cause climate change (as a percentage)?" and they provided their response on a sliding scale from 0 to 100%. Finally, in the demographics section at the end of the survey, we asked all participants, "What is your most dominant political orientation?" As participants resided in Australia they chose from the Labor Party, Liberal Party, Nationals Party, Greens Party, or Independent. The response to this question was used to classify participants as left-wing (Labor Party or Greens Party) or right-wing (Liberal Party or Nationals Party).

2.2 Results

We ran a 2 (political orientation: left-wing, right-wing) x 2 (political identity salience: low, high) analysis of variances (ANOVA) on belief in anthropogenic climate change to see whether salience of political identity affected views on anthropogenic climate change. The analysis revealed that the significant main effects of political identity salience (F(1,103) = 6.37, p<.05) and political orientation (F(1,103) = 6.20, p<.05) on beliefs about the percentage of climate change caused by humans were qualified by the hypothesised significant interaction between the salience

condition and the person's political orientation (F(1,103) = 7.01, p<.01). Moreover, the same analyses controlling for existing environmental attitudes, demonstrated that these relationships were robust (see Table 1). As can be seen in Figure 1, the interaction showed that the perceived human contribution to climate change was significantly lower for people who identified with the right-wing of politics and whose political identity was made salient (64.4%) than those people who identified with the right-wing of politics but whose political identity was not made salient (40.5%) (F(1,102) = 13.48, p < .001). For those on the left-wing of politics, there was no significant difference in perception of human contribution to climate change between those whose political identity was made salient and those whose identity was not made salient (F(1,102) = .01, ns).

A limitation of the first study is that it was conducted with university students. Students participate in every-day life like any other citizen and as such are a valid source of information about climate change beliefs; at the same time though, they represent only one segment of the population. To this end, we sought to replicate our results with a larger sample, generalise these results to a broader population and test the hypotheses in relation to support for government policies on climate change.

3. Study 2

3.1 Methods

3.1.1 Participants

Seven hundred and thirty-six people participated in the second experiment. The

research participants enrolled through Qualtrics, an accredited permission-based panel survey organisation. The sample came from across Australia and was mixed in terms of gender (50.0% male), age (ranged from 18 to 84 years old with a mean age of 50.93 years old and a standard deviation of 15.28 years), and education (38.3% had a highest qualification as high school or junior high school, 31.4% had a trade or technical qualification, 21.7% had a Bachelor degree, and 7.9% had a Masters or PhD qualification). The sample varied also across political orientation with 31.7% aligning with the Labor Party, 29.1% aligning with the Liberal Party, 15.5% aligning with Independents, 9.4% aligning with the Greens Party and 3.4% aligning with the National Party.

3.1.2 Measures and Procedure

The procedure in this study was exactly the same as that in Study 1. Like Study 1, participants were randomly assigned to a control group (N=335) or an experimental group in which political identity was made salient (N=401). Similar to Study 1, we deleted data from people who did not participate in the experimental manipulation (i.e., those who did not write down three words describing the different groups). This resulted in the data from 69 people being deleted. In addition, data from 21 people who did not respond accurately to a set of questions designed to test participant involvement (a measure of cognitive complexity; Woehr et al., 1998) were also deleted as they were deemed not to have taken the questionnaire seriously. Thus, data from 646 people were analysed (331 in the

control group and 315 in the experimental group).

The only change in measures from Study 1 was that we asked two additional questions that assessed support for climate change policies. Following the question regarding anthropogenic climate change beliefs we also asked, "How do you feel about what the government is doing to address climate change?" and participants responded on a scale from 1 (Not doing enough - needs to do a lot more) to 5 (Doing too much - needs to do a lot less). Second, we asked specifically about the carbon pricing policy that was introduced by the Labor government and which has been particularly politically charged. Participants were asked: "To what extent do you agree with the policy of putting a price on carbon?" and participants responded on a scale from 1 (Strongly disagree) to 5 (Strongly agree).

3.2 Results

Similar to Study 1 we controlled for participants' existing environmental attitudes as a more rigorous test of our hypotheses. We ran a two-way ANOVA to examine the effect of the political salience manipulation and political orientation on people's beliefs about the percentage of climate change caused by humans (see Table 2). Consistent with Study 1, the main effect of political orientation (right-wing participants had less belief in anthropogenic climate change than left-wing participants) was qualified by the expected significant interaction (F(1,520) =6.09, p<.05). Simple effects tests showed that people who identified with the right-wing had lower perceptions of the amount of anthropogenic climate change when their political identity was salient (44.7%)

compared to those whose political identity was not made salient (36.0%) (F(1,520) = 6.88, p<.01). Those who identified with the left wing whose political identity was made salient had somewhat higher perceptions of the amount of anthropogenic climate change compared to those whose political identity was not made salient (67.0% compared to 64.7%, respectively), however this difference was not significant (F(1,520) = .93, ns).

We then ran the same analyses to examine the effects of the political salience manipulation and political orientation on policy support (see Table 2). As expected, the main effects of political salience manipulation and political orientation were qualified by a significant interaction on attitudes towards government action (F(1,514) = 6.20, p < .05): Participants who identified with the right-wing of politics and whose political identity was made salient had significantly higher beliefs that the government was doing too much than those who were on the right-wing but whose identity was not made salient, (F(1,514) =12.20, p<.001); there were no attitudinal differences due to identity salience, however, for those who identified with the left-wing of politics (F(1,514) = .02, ns). When we examined support for a particular policy, namely putting a price on carbon, we again found a significant interaction (F(1,520) = 3.73, p=.05). While the simple slopes were not significant in and of themselves, the plot of the significant interaction (shown in Figure 1) shows that compared to the left-wing participants whose identity was not made salient, people on the left whose political identity was made salient had stronger support for a price on carbon (F(1,520) =

2.51, ns), while compared to the right-wing participants whose identity was not made salient, people on the right whose political identity was made salient had weaker support for a price on carbon (F(1,520) = 1.36, ns). To check the robustness of the findings, the same analyses were conducted with the leftwing categorisation based only on Labor Party supporters, i.e., without those who identified with the Greens party. No differences in results were found; detailed results are available upon request to the first author. In essence, the salience of one's political identity affects one's stated beliefs and attitudes towards climate change and dealing with climate change, particularly for those on the right of politics.

4. Discussion

In the current studies we go beyond past research that has examined the relationship between political orientation and climate change beliefs and attitudes by providing experimental evidence of this relationship. We demonstrated across two studies that beliefs became more polarised when political identity was made salient compared to when it was not salient thereby establishing a causal relationship between political identity and momentary attitudes and beliefs around the scientific fact of climate change. Our findings show that right-wing students and community members whose political identity was made salient believed less in an anthropogenic cause of climate change and had lower support for climate change policies than those on the right-wing whose political identity was not made salient. In other words, their own stance on the issue was more

aligned with the party's stance when this identity was salient.

The polarisation of politics in Australia, the US, the UK and other countries has been proposed to have led to an us-and-them phenomenon whereby politicians have taken opposing views on climate change (McCright and Dunlap, 2011) amongst many other policy positions. Our research replicated previous findings with main effect differences between those on the left and right of politics for belief in anthropogenic climate change, for support for the amount of government action on climate change, and for support for a policy on carbon pricing. We suggest that the politicisation of climate change that has already occurred to date has embedded these beliefs and attitudes even when a person is not thinking about political identity. Indeed, the fact that we found that the most change occurred for those who identified with the right may account for the overall worsening in public support that has been seen in many countries.

On the other hand, by showing that the differences are most acute when political identity is salient, our research suggests that there is some "wiggle-room" around these embedded differences. Given how often one's political identity is brought to mind through media, workplace and social cues, the salience of a person's political identity matters; in our study it significantly altered climate change beliefs and support for those on the right of politics. It is also likely that these differences may be occurring during polling of climate change attitudes and beliefs. If a participant is asked about their political orientation (or their political identity is made salient in any other way) before

questions about climate change are asked, then the responses are likely to be biased by this salience. This is a methodological problem, but it also has substantial societal implications. Notably, humans are affected by what we believe to be the normative beliefs; if we believe that a lot of people do not believe in anthropogenic causes of climate change then we are less likely to believe it too. Thus, a vicious circle could be occurring where responses to polls are polarised due to political identity salience, which is then publicised as the normative set of beliefs, thus further polarising future respondents.

Interestingly, we found that it was those who identified with the right-wing of politics who were most affected by making political identity salient. This could be because of the rather crude and simple categorisation into "left wing" and "right wing" that was used in our research; while this is the traditional approach, it could be that more sophisticated categorisations may reveal a more nuanced response from left-wing respondents. However, our findings could also be due to the Australian political context at the time the data were collected. The Labor party held power in a minority government made possible by the Greens party and as part of that coalition had introduced a carbon pricing policy that attracted community and media backlash. As a point of distinction the conservative parties were clearly and explicitly opposed to carbon pricing and less explicitly but still occasionally opposed to climate change science. Our findings suggest that when political identity became salient, conservative participants polarised toward their own party and away from the current

government stance. The same polarisation did not emerge for the left-wing participants. The social identity perspective proposes that intergroup comparisons should maximize differences between groups (Hogg, Tuner, & Davidson, 1990; Oakes, Haslam & Turner, 1994). In the case of conservative participants, polarisation toward their own group position helps achieve this distinction through differentiating them from the leftwing who currently held power and had a clear position on climate change. This same polarisation may not have emerged for leftwing participants as their party had achieved this distinctiveness through their current stance and policies. Moreover, the government's rhetoric on climate change had shifted from the "greatest moral, economic and social challenge of our time" (Rudd, 2007) to putting "the problem of climate change in its proper context" (Gillard, 2010) suggesting that the normative cues were toward a more moderate position. Interestingly, research has found that conservatives have a greater resistance to change and support for preserving the existing order (Jost et al., 2003) which may make it more likely for right-wing than leftwing participants to polarise on the issue of climate change when their identity is made salient. Nonetheless, future research is needed in a different political context and with a different political categorisation before we can determine whether the non-significant result for those on the left-wing of politics is due to methodological considerations or substantive considerations.

The finding that right-wing participants' position on climate change was fluid and moved around in response to political

identity cues is encouraging in that it suggests the possibility of shifting people in a more positive direction. Practically, we believe that our research highlights at least three ways in which we can increase public engagement in dealing with climate change. First, given that in most of the results the effect of political identity salience occurred for people who identified with the right-wing, messages aimed at this segment of the populace may be most influential. If making political identity salient moves people toward their party's stance then a critical issue will be to provide people who identify with the right with alternative perspectives from within their party. A political leader from the right-wing of politics who believes in anthropogenic climate change could lead those on the right to more readily accept anthropogenic climate change and the policies needed to address it, as messages that emanate from in-group members are more influential than those from out-group members (Mackie et al., 1992, see Wood, 2000 for a review, Hornsey, 2005). While this might seem like a pipe-dream it has in fact happened in the UK where David Cameron is the current Conservative Prime Minister, and in Australia when Malcolm Turnbull was leader of the Liberal (centre-right) party. Second, linking climate change discussion to identities with norms that are more congruent with climate change action is another strategy that could help to reduce the politicization of climate change. For example, it may prove fruitful to link climate change discussions to an identity like "parent" or "grandparent" as care for future generations is central to these identities and climate change is set to provide a substantial threat to these future generations. Finally, the way that messages

about climate change are framed can significantly influence responses to climate change and may be an avenue to diffuse polarised responses that result from political partisanship (e.g., Nisbet, 2009, Morton et al., 2011, Spence and Pidgeon, 2010, Gifford and Comeau, 2011, Corner, 2013). For example, Feygina and colleagues (2010) showed increased support for environmental action when messages where framed in ways that appealed to conservative values and, similarly, both Bain and colleagues (2012) and Unsworth and McNeill (2013) showed that climate change sceptics and the general population were more likely to take proenvironmental action when climate change

action was framed in terms of valued outcomes.

Conclusion

We believe that our research provides a glimmer of hope that differences between those on the left and right of politics could be reduced on the issue of climate change. We have identified three strategies that could help to achieve this. We agree that it may take some time to eliminate the politicization of climate change, but our results suggest that it is one direction that could lead to greater action for dealing with climate change.

References

- ASHFORTH, B. E. & MAEL, F. 1989. Social identity theory and the organization. *Academy of Management Review*, 14, 20-39.
- BAIN, P. G., HORNSEY, M. J., BONGIORNO, R. & JEFFRIES, C. 2012. Promoting proenvironmental action in climate change deniers. *Nature Climate Change*.
- BORD, R. J., O'CONNOR, R. E. & FISHER, A. 2000. In what sense does the public need to understand global climate change? . *Public Understanding of Science*, 9, 205-218.
- BRULLE, R. J., CARMICHAEL, J. & JENKINS, J. C. 2012. Shifting public opinion on climate change: An empirical assessment of factors influencing concern over climate change in the U.S., 2002-2010. *Climatic Change*, 114, 169-188.
- CORNER, A. 2013. A new conversation with the centre-right about climate change: Values, frames and narratives UK: Climate Outreach and Information Network.
- DANCEY, L. & GOREN, P. 2010. Party identification, issue attitudes and the dynamics of political debate. *American Journal of Political Science*, 54, 686-699.
- DUNLAP, R. E. & MCCRIGHT, A. M. 2008. A widening gap: Republican and Democrat views on climate change. *Environment*, 50, 26-35.
- ELLEMERS, N., SPEARS, R. & DOOSJE, B. 1999. Social identity: Context, commitment, content, Oxford, England, Blackwell Science.
- FEYGINA, I., JOST, J. T. & GOLDSMITH, R. E. 2010. System justification, the denial of global warming, and the possibility of "system-sanctioned change". *Personality and Social Psychology Bulletin*, 36, 326-338.
- FIELDING, K. S., HEAD, B. W., LAFFAN, W., WESTERN, M. & HOEGH-GULDBERG, O. 2012. Australian politicians' beliefs about climate change: Political partisanship and political ideology. *Environmental Politics*, 21, 712-733.
- FIELDING, K. S., TERRY, D. J., MASSER, B. M. & HOGG, M. A. 2008. Integrating social identity theory and the theory of planned behaviour to explain decisions to engage in sustainable agricultural practices. *British Journal of Social Psychology*, 47.
- GIFFORD, R. & COMEAU, L. A. 2011. Message framing influences perceived climate change competence, engagement, and behavioral intentions. *Global Environmental Change*, 21, 1301-1307.
- GILLARD, J. 2010. Moving forward together on climate change. University of Queensland.
- HART, P. S. & NISBET, E. C. 2012. Boomerang effects in science communication: How motivated reasoning and identity cues amplify opinion polarization about climate change policies. *Communication Research*, 39, 701–723.
- HASLAM, S. A., OAKES, P. J., REYNOLDS, K. J. & TURNER, J. C. 1999. Social identity salience and the emergence of stereotype consensus. *Personality and Social Psychology Bulletin*, 25, 809-818.
- HASLAM, S. A., OAKES, P. J., TURNER, J. C. & MCGARTY, C. 1995. Social categorization and group homogeneity: Changes in the perceived applicability of stereotype content as a function of comparative context and trait favourableness. *British Journal of Social Psychology*, 34, 139-160.

- HORNSEY, M. J. 2005. Why being right is not enough: Predicting defensiveness in the face of group criticism. *European Journal of Social Psychology*, 16, 301-334.
- HORNSEY, M. J. 2008. Social identity theory and self-categorization theory: A historical review. Social and Personality Psychology Compass, 2, 204-222.
- JOST, J. T., GLASER, J., KRUGLANSKI, A. W. & SULLOWAY, F. J. 2003. Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339-375.
- KELLY, C. 1989. Political identity and perceived intragroup homogeneity. *British Journal of Social Psychology*, 28, 239-250.
- KROSNICK, J. A. & KINDER, D. R. 1990. Altering the foundations of support for the President through priming. *The American Political Science Review*, 84, 497-512.
- MACKIE, D. M., GASTARDI-CANACO, M. C. & SKELLY, J. J. 1992. Knowledge of the advocated position and the processing of in-group and out-group persuasive messages. *Personality and Social Psychology Bulletin*, 18, 145-151.
- MCCRIGHT, A. M. 2011. Political orientation moderates Americans' beliefs and concern about climate change. *Climatic Change*, 104, 243-253.
- MCCRIGHT, A. M. & DUNLAP, R. E. 2011. The politicization of climate change and polarization in the American' Public's views of global warming, 2001-2010. *The Sociological Quarterly*, 52, 155-194.
- MORTON, T. A., POSTMES, T. & JETTEN, J. 2007. Playing the game: when group success is more important than downgrading deviants. *European Journal of Social Psychology*, 37, 599-616.
- MORTON, T. A., RABINOVICH, A., MARSHALL, D. & BRETSCHNEIDER, P. 2011. The future that may (or may not) come: How framing changes responses to uncertainty in climate change communications. *Global Environmental Change*, 21, 103-109.
- NISBET, M. C. 2009. Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development*, 51, 12-23.
- ONORATO, R. S. & TURNER, J. C. 2004. Fluidity in the self-concept: The shift from personal to social identity. *European Journal of Social Psychology*, 34, 257-278.
- POORTINGA, W., SPENCE, A., WHITMARSH, L., CAPSTICK, S. & PIDGEON, N. F. 2011. Uncertain climate: An investigation into public scepticism about anthropogenic climate change. *Global Environment Change*, 21, 1015-1024.
- RABINOVICH, A., MORTON, T. A., POSTMES, T. & VERPLANKEN, B. 2012. Collective self and individual choice: The effects of inter-group comparative context on environmental values and behaviour. *British Journal of Social Psychology*, 51, 551-560.
- RUDD, K. 2007. Address to UN Bali Conference on Climate Change. Bali.
- SCRUGGS, L. & BENEGAL, S. 2012. Declining public concern about climate change: Can we blame the great recession? *Global Environment Change*.
- SPENCE, A. & PIDGEON, N. 2010. Framing and communicating climate change: The effects of distrace and outcome frame manipulations. *Global Environmental Change*, 20, 656-667.

- SUNBLAD, E.-L., BIEL, A. & GÄRLING, T. 2009. Knowledge and confidence in knowledge about climate change among experts, journalists, politicians, and laypersons. *Environment and Behavior*, 41, 281-302.
- TAJFEL, H. & TURNER, J. C. 1986. The social identity theory of intergroup behaviour. *In:* WORCHEL, S. & AUSTIN, W. G. (eds.) *Psychology of Intergroup Relations.* Chicago: Nelson Hall.
- TARRANT, M. & BUTLER, K. 2011. Effects of self-categorization on orientation towards health. *British Journal of Social Psychology*, 50, 121-139.
- TERRY, D. J., HOGG, M. A. & WHITE, K. M. 1999. The theory of planned behaviour: Self identity, social identity and group norms. *British Journal of Social Psychology*, 38, 225-244
- TURNER, J. C., OAKES, P. J., HASLAM, S. A. & MCGARTY, C. 1994. Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, 20, 454-463.
- TVERSKY, A. & KAHNEMAN, D. 1974. Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1125-1130.
- UNSWORTH, K. L. & MCNEILL, I. 2013. Getting everyone to engage in pro-environmental behaviours: Increasing self-concordance to increase adaptation. *Australian and New Zealand Academy of Management Conference*. Hobart.
- WOEHR, D. J., MILLER, M. J. & LANE, J. A. S. 1998. The development and evaluation of a computer-administered measure of cognitive complexity. *Personality and Individual Differences*, 25, 1037-1049.
- WOOD, W. 2000. Attitude change: Persuasion and social influence. *Annual Review of Psychology*, 51, 539-570.
- YIN, J. 1999. Elite opinion and media diffusion: Exploring environmental attitudes. *The Harvard International Journal of Press/Politics*, 4, 62-86.

<u>Table 1. Analysis of Differences in Perceived Human Contribution to Climate Change for Political Identity Salience Manipulation and Political Orientation in Study 1</u>

	Perceived Human Contribution to Climate Change
Intercept	F(1,102) = 17.80***
Environmental Attitude	F(1,102) = 5.53*
Political Identity Salience manipulation	F(1,102) = 5.52*
Political Orientation	F(1,102) = 4.13*
Manipulation * Orientation Interaction	F(1,102) = 6.05*

^{*}p<.05, **p<.01, ***p<.001

Table 2. Analysis of Differences in Perceived Human Contribution to Climate Change,
Government Action, and Policy Support for Political Identity Salience Manipulation and Political
Orientation in Study 2

	Perceived Human	Government Action	Support for Carbon
	Contribution to		Pricing Policy
	Climate Change		
Intercept	F(1,520) = 11.74**	F(1,514) = 513.12***	F(1,520) = 62.62***
Environmental Goal	F(1,520) = 68.66***	F(1,514) = 27.78***	F(1,520) = 27.39***
Political Salience	F(1,520) = 1.36	F(1,514) = 7.13**	F(1,520) = .04
Manipulation			
Political Orientation	F(1,520) = 105.15***	F(1,514) = 60.43***	F(1,520) = 203.72***
Manipulation *	F(1,520) = 6.09*	F(1,514) = 6.20*	$F(1,520) = 3.73^{t}$
Orientation Interaction			

p=.05, *p<.05, **p<.01, ***p<.001