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"Proximising" climate change reconsidered: A construal level theory perspective

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Abstract

Reducing the psychological distance of climate change has repeatedly been proposed as one strategy to increase individuals' motivation to respond to climate change. From the perspective of construal level theory, decreasing psychological distance should not itself influence people's willingness to act but change the processes that underlie individual decision-making. We conducted two experiments in which we manipulated the psychological distance of climate change. We found that participants with a distant focus relied more on scepticism to represent risks and make decisions about supporting climate change, whereas participants with a proximal perspective relied more on fear when making such judgements. However, the predicted Fear x Distance interaction was only found when self-reported fear rather than experimentally manipulated fear was used as a moderator. Our results suggest that simply proximising won't increase engagement and call for a more differentiated perspective on the effects of psychological distance in the context of climate change.

Keywords: climate change, psychological distance, construal level theory, risk perception, mitigation, adaptation

1. Introduction

A common explanation for currently insufficient public support to address climate change (e.g., European Commission, 2011; PEW Research Center, 2010) is that people perceive climate change as a distant threat: something that affects strangers, and that happens in remote times and places rather than in the here and now (Fleury-Bahi, 2008; Leiserowitz, 2006; Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; O'Neill & Nicholson-Cole, 2009). The distance at which people perceive climate change could lead to the perspective that climate change risks are irrelevant to one's self and that there is no need for personal action. To remedy this, it has repeatedly been suggested that highlighting the proximal consequences of climate change is an important strategy to engage and mobilize publics around this issue (e.g., CRED, 2009; Moser & Dilling, 2007; O'Neill & Nicholson-Cole, 2009). Although the proximising strategy has been proposed frequently, its effectiveness has rarely been tested in the context of climate change. Of more concern, the studies that have experimentally tested the proximising approach have not revealed the expected positive effects on individual support for addressing climate change (e.g., Shwom, Dan, & Dietz, 2008; Spence & Pidgeon, 2010).

The missing positive effect of such proximising is counter-intuitive and may, at first glance, seem disappointing. However, it is not unexpected when considered from the perspective of dominant theoretical models of psychological distance. Construal level theory (Trope & Liberman, 2003, 2010) argues that varying levels of psychological distance (e.g., here vs. far away) influence *how* people represent objects mentally and *what* information they consider when making judgments and decisions. In accordance with this perspective, we expect that proximising climate change should affect *how* climate change is mentally represented, and through this what people *act on*, not whether or not people act *per se*.

Following the above reasoning, the aim of the present research was to reconsider the widely held belief that focusing on proximal (vs. distant) impacts of climate change should

straightforwardly increase people's motivation to support mitigation and adaptation strategies. Before presenting two studies that tested this, we elaborate further on why considering psychological distance is crucial in the context of climate change and what kinds of information we expect people to rely on when they zoom in on proximal (or zoom out to distant) climate change consequences.

1.1 Climate change as a distant threat

Climate change and distance are two strongly entangled topics: Wherever greenhouse gases are emitted, they spread throughout the atmosphere and will contribute to global (distant) climate change. Similarly, the consequences of climate related actions are often felt by people other than those who carry these actions out both in space and time. The entanglement of distance and climate change is also obvious in the fact that many consequences of climate change, due to the inertia of the climate system, will only be manifest several decades from now. This is, from the perspective of an individual, a long time span and far away from one's present situation. Finally, although it is certain that the climate is changing and will continue to do so, the exact magnitude and quality of future climate change impacts can never be absolutely known. This uncertainty can also be regarded as a form of psychological distance (Trope & Liberman, 2010).

Research on public perception of climate change indicates that distance is an important factor. When people are asked about how they think about climate change, they tend to perceive climate change as a threat that is more likely to affect strangers remote in time and space rather than oneself, the people one knows, or nearby places; in addition, climate change is perceived as a greater danger to the natural world than it is to humans (Bord, Fisher, & O'Connor, 1998; Fleury-Bahi, 2008; Leiserowitz, 2006; Lorenzoni, Leiserowitz, De Franca Doria, Poortinga, & Pidgeon, 2006; Lorenzoni et al., 2007; Milfont, 2010). Somewhat in contrast to this general pattern, a recent study found that roughly 40–50% of participants perceive climate change as psychologically close on various dimensions of psychological

distance (Spence, Poortinga, & Pidgeon, 2012; see also The World Bank, 2009). Nonetheless, research suggests that at least a sizable part of the public perceives climate change as a distant threat.

The perception of climate change as a distant threat is considered problematic because individuals' perception of being personally at risk can be an important motivation to react to the respective risk (e.g., Floyd, Prentice-Dunn, & Rogers, 2000; Miceli, Sotgiu, & Settanni, 2008; Zaalberg, Midden, Meijnders, & McCalley, 2009). Indeed, the link between perceived personal risk and willingness to act on climate change has been observed in several studies (Brody, Grover, & Vedlitz, 2012; Dietz, Dan, & Shwom, 2007; O'Connor, Bord, & Fisher, 1999; O'Connor, Bord, Yarnal, & Wiefek, 2002; Terpstra, 2011; Zaalberg et al., 2009).

1.2 Climate change and proximising climate change from the perspective of construal level theory

Against the above backdrop, the idea that emphasising proximal consequences of climate change should increase people's motivation to act is intuitively appealing. However, previous attempts to implement this idea raise doubt about the effectiveness of proximising climate change. To our knowledge, only four studies have examined the impact of proximising on people's motivation to act on climate change, and none reveals unambiguously supportive evidence. Shwom and colleagues (2008) provided their participants with information about climate change trends either on a regional or a national scale. Contrary to the common expectations, the extent to which participants endorsed climate change policies did not differ across conditions. In a similar vein, Spence and Pidgeon (2010) framed climate change in proximal versus distant terms. The proximal frame included a text on national consequences, a proximal map illustrating potential flooding caused by sea-level rise, and three photographs of urban flooding that were recognisable as places in the UK (where the study was conducted). The distant frame included similar stimuli but with reference to continental Europe. Again, proximising climate change had no effect on attitudes towards climate change mitigation.

The third study we are aware of was by Scannell and Gifford (2013), who provided members of the general public with information posters describing either one broad distant impact of climate change (sea levels rising) or a proximal impact specific to the area they lived in (one of the following three: forest fires, beetle infestation, rising sea levels). Relative to a third condition, where no information was provided, the proximally framed information poster increased participants' engagement with climate change (including affective, cognitive, and behavioural aspects of engagement). In contrast, people's engagement with climate change did not differ between the distantly framed poster and the control condition. Thus, this study suggests that providing information about proximal climate change may be helpful to increase people's engagement with climate change. However, two aspects of this study make it difficult to draw firm conclusions about the specific advantages of zooming in on proximal climate change relative to a more distant approach. First, Scannell and Gifford (2013) did not directly compare the proximal and the distant frame. Second, they varied not only the psychological distance of impact but also the type of impact (sea level rising vs. forest fires, beetle infestation, rising sea levels); this raises the possibility that effects in the "proximal" condition may have been multiply determined.

The fourth study again compared locally versus globally framed climate change information and compared the effects of these frames to a control condition with no information about climate change (Schoenefeld & McCauley, 2015). The study again failed to reveal a statistically significant main effect. That is, participants' ratings of the importance of climate change, their intentions to personally mitigate climate change, and their support for mitigation policies were identical across the three conditions. Thus, while proximising climate change impacts is a "common sense" strategy to increase engagement (Devine-Wright, 2013), to date there is limited evidence that this strategy actually works.

This finding may not be so surprising when considered from the perspective of construal level theory (Trope & Liberman, 2003, 2010). Construal level theory (CLT) starts

from the assumption that humans can only directly experience the present situation. Everything that is removed from the current situation, be it on a spatial (here vs. far away), temporal (now vs. future/past), social (me vs. others), or hypothetical (certain vs. uncertain) dimension, needs to be mentally construed. The further away an object is from the present situation of a person, the more effort she has to make to construe it, and the more abstract and generalised the resulting mental representation will be (high-level construal). Conversely, the present situation offers a lot of context-specific information and is rich in details; it involves no or only little mental construal (low-level construal). In simpler terms, this means that when we think of an object as close versus distant, we form different mental representations of it. These representations then guide subsequent judgments and decisions. Thus, psychological distance – the perception of when, where, to whom, and whether an event occurs (Trope & Liberman, 2010) – affects what evaluations and even behavioural intentions are based on.

Illustrative of this, one study (Ledgerwood, Trope, & Chaiken, 2010) found that participants with a proximal and concrete perspective considered primarily low-level incidental circumstantial information (e.g., other people's opinion) when they evaluated a policy. Conversely, when participants with a more distant (abstract) mind-set evaluated the same policy, they were guided by their broader values, which are commonly regarded as overarching orientations that are relatively stable across time and different situations (i.e., high-level construal). Eyal and colleagues (2009) found the same pattern with regard to behavioural intentions: When intentions were represented in the distant future, (high-level construal) values better predicted intentions, whereas (low-level construal) feasibility considerations were better at predicting intentions in the near future (see also Rabinovich, Morton, & Postmes, 2010).

Considering that distance influences what evaluations and intentions are based on – rather than directly affecting people's motivation to act – it may be less surprising that Spence and Pidgeon (2010), Shwom et al. (2008), and Schoenefeld and McCauley (2015) did not find any direct impact of distance framing on the level of policy support and attitudes towards

climate change mitigation. According to CLT, proximising climate change would not be expected to have a direct effect on people's overall willingness to respond to the challenges arising from climate change – as long as climate change will somehow and sometime become relevant to the individual (Ledgerwood, Trope, & Chaiken, 2010; Ledgerwood, Wakslak, & Wang, 2010). Instead, when people have a proximal perspective, they should preferentially consider concrete low-level information (e.g., other people's opinions, feasibility considerations) for representing climate change, its consequences, and potential response strategies, while those with a distant focus are expected to rely more on abstract high-level information (e.g., their own values). Thus CLT would predict that variations in distance framing should interact with other things – things that represent low- or high-level construals – to determine individual responses.

1.3 Fear and scepticism as low-level and high-level information

Two factors that are relevant for how people think and decide in the context of climate change and that differ with regard to their level of construal, are fear and scepticism. The role of *fear* as a driver of personal action is well documented in general, for example with regard to health-related behaviours (e.g., Maloney, Lapinski, & Witte, 2011). In terms of climate change, fear is also regarded as a motivator for taking action (Maibach, Roser-Renouf, & Leiserowitz, 2008; Moser, 2007; Weber, 2006) and there is some evidence showing that when people are afraid of climate change (or have other similar negative feelings), they perceive climate change more as a risk, have more favourable attitudes towards mitigation, and are more willing to mitigate (Leiserowitz, 2006; Meijnders, Midden, & Wilke, 2001; Smith & Leiserowitz, 2012; Van Zomeren, Spears, & Leach, 2010; for a more critical perspective on fear appeals, see for example O'Neill & Nicholson-Cole, 2009).

We assume that the experience of *fear* represents a *lower-level construal* relative to more abstract beliefs about climate change (see below). This assumption is grounded in the division of emotions into low-level and high-level construal emotions. Low-level construal

emotions such as pain, hunger, sadness, anger, and fear are spontaneous reactions to the immediate situation that do not involve mental construal (cf. Liberman, Trope, & Stephan, 2007). High-level construal emotions, on the other hand, are those emotions that require distancing on at least one dimension of psychological distance. For example, nostalgia and anticipation mean thinking about things that happened in the past or will happen in the future and therefore involve distancing on the temporal dimension of psychological distance. Because people rely more strongly on information that is consistent with their current mind-set, we assume that people who adopt a proximal perspective on climate change will rely more on the immediate experience of fear (a low-level construal) as a source of information about whether they should act than people who adopt a more (spatially) distant perspective.

In contrast to the hypothesized role of fear as low-level construal, when people adopt a distant perspective on climate change, their subsequent decisions should be guided by abstract construals such as their broad beliefs and values. In relation to this, the second factor we considered as a potential source of decision-making about climate change was *scepticism.* Scepticism refers to the degree to which people believe in the reality of human-made climate change and its present and future consequences. Scepticism is relevant because it undermines people's motivation to address climate change (cf. Lorenzoni et al., 2007); why should anyone be concerned about climate change and motivated to act if they do not believe that climate change is real, potentially dangerous, and caused by humans? On the other hand, if a person's level of scepticism is low, then he or she is more likely to support mitigation (Joireman, Truelove, & Duell, 2010; Leiserowitz, 2006) and adaptation (Blennow & Persson, 2009). From the perspective of CLT, scepticism – as a collection of abstract beliefs about climate change, its causes, and possible consequences – can be considered as a higher-level construal relative to the more concrete experience of fear. Because high-level construals are more informative for representations of distant objects, we expected that people with a distant perspective on climate

change would rely more on sceptical beliefs than on fear to represent risks and make decisions about supporting climate change responses.

1.4 The present research

Like previous studies, the present research is interested in the role distance plays in the context of climate change action. However, we approach this issue via the perspective of CLT (Trope & Liberman, 2003, 2010). In accordance with this perspective, we do not expect that proximising climate change will automatically increase individual motivations to act. Rather, based on CLT we expect that manipulating psychological distance (i.e., a proximal vs. distant focus on climate change) should influence people's mental construals of climate change and consequently the kind of information they act on (i.e., information that reflects low- versus high- level construals; Trope & Liberman, 2010).

To test these predictions we conducted two experiments. In Study 1 participants received either proximal or distant information about climate change and then answered questions about their risk perceptions, their willingness to respond to climate change, their emotional responses to climate change, and their beliefs (i.e., scepticism). We predicted that participants with a proximal perspective would rely more on fear to represent risks and make decisions about supporting climate change responses. Conversely, people with a distant perspective should rely more on scepticism when representing risks and deciding how to act. The results partially supported the predicted interactions. To replicate the findings of Study 1 and to learn more about the causal role of fear, Study 2 again presented participants with either a proximal or a distant framing of climate change. In addition, Study 2 systematically varied the level of fear (instead of simply measuring it). While Study 2 failed to produce the expected interactions between proximising and *manipulated* levels of fear, it revealed the same interactions as in Study 1 when *self-reported* fear was used as a moderator.

2. Study 1

2.1 Material and methods

2.1.1 Participants and procedure

Participants were 80 Psychology students from a University in the UK who participated in exchange for course credit. The average age was 20.6 years (*SD* = 5.50; range: 18 to 50). The proportion of females was 82%. Upon arrival in the classroom, students received a questionnaire that introduced climate change with either a proximal or distant focus (randomly assigned). They answered the remainder of the questionnaire and then were debriefed.

2.1.2 Manipulation and manipulation checks

Manipulation. Two texts about the causes and consequences of climate change were used to induce a proximal (vs. a distant) perspective on climate change. In the proximal condition the text (Appendix A) referred three times to the "UK" whereas the in the distant condition, the text referred to "all over the world", "across the globe", or to "the planet" in the same places.

Manipulation check. To check whether focusing on proximal (vs. distant) impacts of climate change elicited concrete (vs. abstract) thinking styles, we asked participants to group 30 different climate change impacts (e.g., "famine", "population migration"). It was expected that participants with an abstract mind-set (distant condition) would think broadly and consequently use relatively few categories to classify the objects. Conversely, individuals who were primed with a concrete (proximal) mind-set were expected to refer to more categories to classify the same objects (cf. Liberman, Sagristano, & Trope, 2002). When the number of categories was compared, no statistically significant difference was found between the proximal (M = 4.29, SD = 1.56) and distant condition (M = 4.42, SD = 1.50; $t(66)$= 0.37, p = .71). In other words, we cannot be certain that the manipulation effectively induced a concrete

versus abstract mind-set in the proximal versus distant condition respectively, although the texts themselves clearly do refer to proximal versus distal impacts of climate change.

2.1.3 Measures

2.1.3.1 Perceived risk. To measure the extent of perceived risk, we asked participants to judge the likelihood of seven possible consequences from climate change (1 = *very unlikely,* 5 = *very likely*). To maintain the integrity of the manipulation, in the proximal condition we used questions relating to spatially proximal impacts whereas in the distant condition questions referred to distant impacts (Dietz et al., 2007; Leiserowitz, 2006; O'Connor et al., 1999, see Appendix C for all items used in Study 1). The proximal and distant items formed two reliable scales (Cronbach's $\alpha_{proximal} = .76$, $\alpha_{distant} = .82$).

2.1.3.2 Low-level construal fear of climate change. Participants indicated the extent to which they experienced 14 different emotions when thinking about (proximal vs. distant) climate change. Out of these 14 adjectives (e.g., bored, guilty, reassured), four were used to capture participants' levels of fear (anxious, nervous, tense, fearful; Spence & Pidgeon, 2010; $\alpha = .87$).

2.1.3.3 High-construal level scepticism. We used six items to assess participants' level of scepticism (Whitmarsh, 2009; Whitmarsh & O'Neill, 2010). Participants were asked to indicate how much they agreed with these statements (1 = *strongly disagree,* 5 = *strongly agree;* $\alpha = .79$).

2.1.3.4 Support for mitigation policies. Participants indicated their support (1 = *definitely oppose*, 5 = *definitely support*) for 11 policies that we presented as steps to decrease the amount of greenhouse gases "as a society". The 11 items (Nilsson, von Borgstede, & Biel, 2004; Prillwitz & Barr, 2011), formed a reliable scale ($\alpha = .73$).

2.1.3.5 Personal intentions to mitigate. We used 10 items (Lowe et al., 2006; O'Connor et al., 1999) to assess people's future intentions to engage in actions to mitigate climate

change. The topics covered were mobility, energy-saving, consumption, and political behaviours. On a 5-point Likert scale, participants indicated how likely they were to take each action in the future to combat climate change (1 = *very unlikely*, 5 = *very likely*; $\alpha = .79$).

2.1.3.6 Support for adaptation policies. Participants were presented with a brief introduction explaining the need and the rationale underlying the idea of adaptation. To assess *support for pro-active adaptation policies*, we developed a catalogue of 12 adaptation measures that were guided by adaptation research (IPCC, 2007a). The proposed adaptation measures focused on conservation of species, protection against water scarcity, heat, and floods. Participants again indicated the degree of their support for each of these policies (1 = *definitely oppose*, 5 = *definitely support*; $\alpha = .75$).

2.1.3.7 Personal intentions to adapt. Participants rated the likelihood of nine steps they could take individually to adapt to climate change. These actions were aimed at reducing the vulnerability of themselves, other people, or nature to negative climate change impacts. Participants answered the question about which actions they were likely to take in the future on a five-point Likert scale (1 = *very unlikely,* 5 = *very likely*; $\alpha = .77$).

2.2 Results

Main effects. We used multiple linear regression analyses with distance as single predictor to test for main effects on participants' willingness to respond to climate change. As anticipated, focusing on either proximal or distant impacts of climate change had no effect on people's motivation to mitigate climate change (*p*-values for policy support and personal intentions $\geq .74$, Table 1) or adapt to possible consequences (*p*-values for policy support and personal intentions $\geq .88$, Table 1).

Table 1

Simple main effects of proximising

	M_{prox}	SD_{prox}	M_{dist}	SD_{dist}	R^2	β	df	p
Mitigation policy support	3.58	.52	3.54	.52	.00	.04	78	.74
Mitigation intention	3.43	.57	3.43	.66	.00	.00	78	.99
Adaptation policy support	3.69	.49	3.67	.51	.00	.02	77	.90
Adaptation intentions	3.31	.68	3.34	.63	.00	-.02	77	.88

Note. prox = proximal framing of climate change, dist = distant framing of climate change.

Interaction effects. To address the question of whether varying foci on climate change influenced the extent to which participants relied more on low-level construal fear or high-level construal scepticism to represent climate change risks and to decide about responses, we explored potential interaction effects using a series of regression analyses (Appendix D). In each model, the distance manipulation, fear, and scepticism were entered in the first step. We also included gender as covariate to ensure that the effects found were independent of this demographic variable. In the second step, the focal interaction terms (Distance x Fear and Distance x Scepticism) were added to the model. If adding the interaction terms resulted in a statistically significant improvement of the model, simple slope analyses were carried out to better understand and visualize the interactions (for details, see Cohen, Cohen, West, & Aiken, 2003).

When risk perceptions were used as the dependent variables, it was found that people were differently influenced by fear depending on whether they thought of proximal or distant climate change (β = .33, t = 2.24, p = .03; Figure 1A and Appendix D): For participants with a proximal perspective, (low-level construal) fear was positively associated with risk perceptions (β = .34, t = 2.51, p = .02), that is, the more people were afraid of climate change, the more they perceived it as a risk. Conversely, reported fear and risk perceptions were not systematically related to each other among participants with a distant mind-set (β = -.11, t = -

.76, p = .45). This pattern is consistent with our prediction that low-level construal fear was more informative for participants with a proximal perspective.

Conversely, and again in line with our predictions, (high-level construal) scepticism was more informative for participants with a distant perspective (β = -.58, t = -4.38, p < .001) than for those who were primed with proximal climate change (β = .10, t = .71, p = .48). More specifically, the more sceptical participants were, the less likely they judged climate change risks. This second interaction effect (β = .47, t = 3.46, p < .001; Appendix D) is illustrated in Figure 1B..

With respect to *personal intentions,* none of the predicted interactions were found. In contrast to our prediction, when people made decisions about acting personally on climate change, (high-level construal) scepticism was not only more informative for participants with a psychologically distant perspective but also for those with a proximal perspective. More specifically, the less sceptical people were about the reality of climate change, the more willing they were to take personal action. The absence of the predicted interaction and the main effect of scepticism suggest that participants *generally* relied more on their abstract beliefs than on fear when making decisions about personal intentions.

In terms of policy support, two interaction effects emerged: When examining participants' decision about *support for mitigation policies,* the interaction between distance and fear on willingness to support policies (β =.37, t = 2.29, p = .03, Figure 1C and Appendix D) looked similar to the one observed for risk perceptions (Figure 1A): The more people reported fear in the proximal condition, the more they were willing to support mitigation policies. However, this effect was not itself significant, β = .18, t = 1.21, p = .23.

Contrary to what could be expected from the literature (e.g., Meijnders et al., 2001; Van Zomeren et al., 2010), in the distant condition, fear was significantly *negatively* (rather than positively) related to support for mitigation policies, β = -.32, t = -2.02, p = .05. One explanation for this negative association is that low-level construal fear and the distant mind-

set may be represented at different construal levels. Because of this mismatch participants with a distant mind-set could have found it more difficult to process and integrate their feelings and the psychological distance information than participants with a proximal mind-set. As a result, participants in the distant condition probably had an experience that was less fluent and therefore less persuasive (see Kim, Rao, & Lee, 2009) than participants in the proximal condition, where fear and mind-set were represented at the same construal level. We return to this issue of "fit" in the discussion section.

Looking at this interaction differently, however, it can be seen that distance framing *did* have an effect for people who reported higher levels of fear. Specifically, at high levels of fear, proximising was positively associated with support for mitigation policies (β = .31, t = 2.07, p = .04). At low levels of fear, there was no effect of the framing manipulation on mitigation policy support (β = -.19, t = -1.25, p = .22). As such, there is some support for the hypothesis in the pattern of this variable.

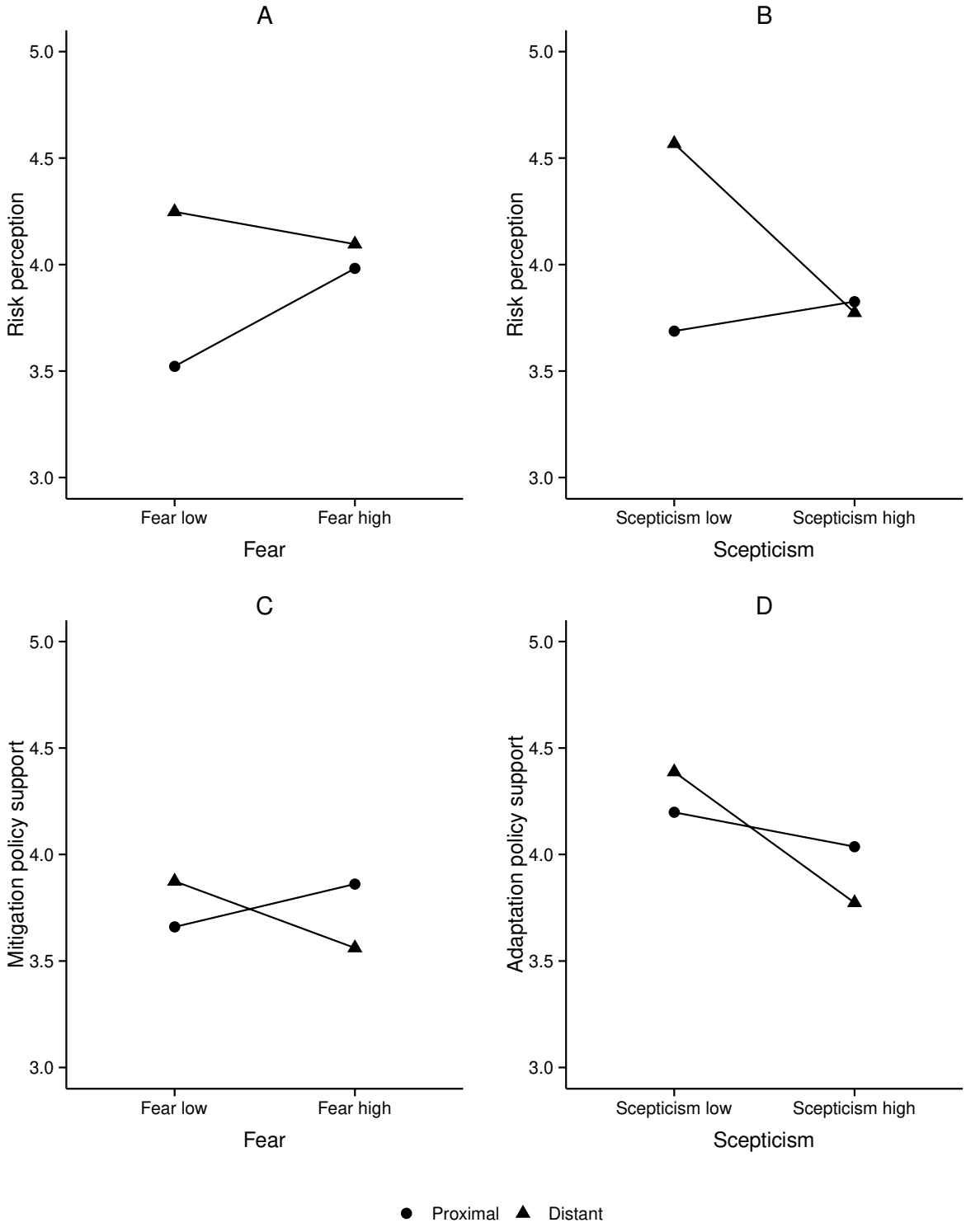

Figure 1. Simple slopes of psychological distance predicting risk perceptions and policy support for 1 SD below the mean of low-level construal fear (A, C) and 1 SD above the mean of fear and for 1 SD below the mean of high-level construal scepticism and 1 SD above the mean of scepticism (B, D).

With regard to support for *adaptation policies,* another interaction emerged (β = .31, t = 2.07, p = .04) that was in line with the prediction that (high-level construal) scepticism should be more informative for participants with a distant mind-set than for those with a proximal mind-set. Specifically, scepticism was negatively associated with support for adaptation policies in the distant condition (β = -.60, t = -4.20, p < .001; Figure 1D). In contrast, for participants who had a proximal mind-set, scepticism was not a relevant source of information (β = -.16, t = -1.03, p = .31).

2.3 Discussion

The results of Study 1 showed that focusing on proximal climate change (vs. thinking about distant climate change) did not straightforwardly increase participants' mean-level support for response strategies. Instead, we found evidence that distance interacted with other things to determine individual responses: The overall pattern of interactions suggests that people with a proximal mind-set tend to rely more on low-level construal fear to make climate-related judgments and decisions than people with a distant mind-set. In contrast, people with a distant mind-set are more strongly influenced by high-level construal scepticism when thinking about climate change and possible response than people with a proximal mind-set.

One limitation of Study 1 was that the manipulation check did not show any differences in thinking styles (i.e., concrete vs. abstract) between the two conditions, although this was assumed to be one consequence of the proximal versus distant framing of climate change. Hence, although the conditions produced different tendencies in terms of what kind of information participants were influenced by, we cannot be certain that this is due solely to a difference in the extent of concrete versus abstract thinking, which is at the core of CLT. Although the formal aspects of the manipulation check (grouping climate change impacts) were very similar to manipulation checks that were successfully used in previous studies from a CLT perspective (cf. Liberman et al., 2002), the task might have been too demanding in

terms of the elements participants had to group (potential future climate change impacts). We therefore think that this manipulation check was not ideal.

A second potential shortcoming of Study 1 is that the proximal and distant experimental conditions used different questions to measure risk perceptions. That is, when risk perceptions were used as a dependent variable, the object of the risk judgements differed across conditions (e.g., "Water shortages will occur *where I live* vs. *in much of the world"*). Using the different risk judgements as a single dependent variable may in principle have produced distorted results.

Third, Study 1 only manipulated psychological distance and then used observed spontaneous individual differences in low-construal level fear and high-construal level scepticism as second predictors. It would be instructive to move a step forward and also experimentally vary the second part of the interactions (i.e., fear and/or scepticism). Thereby more control over the central variables would be achieved and clearer conclusions about the causality of the involved variables could be drawn.

3. Study 2

To replicate the findings of Study 1 and to address its shortcomings, we conducted a second study that consisted of two phases. We first developed and pre-tested experimental manipulations to induce different levels of fear and psychological distance. We then carried out a field experiment in which we tested the predicted 2 (psychological distance: proximal vs. distant) x 2 (fear: low, high) interaction.

3.1 Development and pre-tests of experimental manipulations

3.1.1 Proximising pilot

Participants and procedure. One hundred twenty-five students participated in the online pilot studies. Of these, 36 were excluded because their reading speed during the manipulation was implausibly high (faster than 800 words per minute), which made it unlikely

that they processed the information. The mean age of the 89 remaining participants was 25.4 years (*SD* = 10.10; range: 18 to 66). The proportion of females was 65.9%. Participants were randomly assigned to one of the two distance conditions where they read a text, completed the manipulation checks, and indicated how they generally perceived the text. As an incentive, participants could enter a lottery to win one of three Amazon vouchers worth £20.

Proximity manipulation. Like in Study 1, distance was manipulated by two different texts that focused on the impacts of climate change either in the UK or in the world. However, the manipulation differed from Study 1 in that it referred more than 20 times (vs. three times in Study 1) to geographically proximal or distant places (e.g., "in the UK" vs. "worldwide"; Appendix B).

Manipulation checks. We used two approaches to evaluate the effect of the *proximising* manipulation. First, we presented participants with five semantic differential-type scales on which they were asked to indicate how proximal or distant climate change felt to them (e.g., very close vs. very distant; cf. Van Boven, Kane, McGraw, & Dale, 2010; α = .85; Appendix C). Second, we included a measure that was intended to measure the effect of proximising on people's way of thinking (i.e., concrete vs. abstract). We included 11 pictures from the Picture Completion Test (Petermann & Petermann, 2007). We assumed that participants in the proximal condition should adopt a more concrete (vs. abstract) thinking style and perform better (i.e., get more correct answers) in detecting missing parts in the 11 pictures than those in the distant condition (see also Wakslak, Trope, Liberman, & Alony, 2006).

Results. Somewhat unexpectedly, the ratings of perceived psychological distance did not differ between participants in the proximal condition (M = 3.28, SD = 1.14) and participants in the distant conditions (M = 3.17, SD = 1.15, $t(86) = 0.43$, $p = .67$, $r = .05$). By contrast, there were differences between the two groups in terms of how concretely they were thinking. In line with CLT, those in the proximal condition performed better in detecting missing parts in a selection of pictures taken from the Picture Completion Test (M = 7.73, SD =

1.63) than those in the distant condition (M = 6.80, SD = 2.14, $t(87) = 2.32$, $p = .02$, $r = .24$). Taken together, the pre-tests suggest that proximising has no effect on explicit evaluations (i.e., perceived psychological distance) but affects people's thinking styles in a way that is consistent with the intention of the manipulation.

3.1.2 Fear pilot

Participants and procedure. Sixty-one students participated in the online pilot studies. Fifty-three watched the entire video and were included in the analyses. The mean age of these participants was 25.1 years (SD = 7.48; range: 18 to 47). The proportion of females was 51.9%. After watching the video, participants completed the manipulation checks, and indicated how they generally perceived the video. The same incentive was used as in the first pre-test.

Fear manipulation. Participants watched a video (approx. 3 min) that – by means of overlaid text, stills, video scenes, and a graph – described the causes and consequences of climate change. Both videos first explained that climate change was the average weather over thirty years, what and how much had already changed, and that humans were responsible for it to a large extent. The high-fear version then showed a selection of expected consequences of higher temperatures, using dramatic music, a font primarily used in headlines to arouse attention (**Impact**), vivid and drastic visual information about climate change such as a dark sky with lightning, underlined with the sound of thunder and howling wind (more severe weather events), a car carried away fast by a stream of water (floods), and cow carcasses on dry land (drought). The low-fear version showed the same consequences but had emotionally neutral music, used a more neutral font (Arial and **Arial Black**), and showed less drastic visual information such as a satellite image of a storm, a parked car with water up to its lights, and sheep on dry land without any grass to graze on. In addition, the two versions differed in terms of how the expected temperature increase was framed: In the high-fear version, the upper limit of the possible temperature increase was indicated ("up to 6.5°C by 2100"; IPCC, 2007b),

whereas the lower boundary was indicated in the low-fear version ("2.4°C by 2100"; IPCC, 2007b). Finally, the videos tried to avoid geographical cues that would bias the videos towards proximal or distant places.

Manipulation check. To measure the extent of elicited *fear*, we presented participants with 15 different emotions and asked them to "make a fast and spontaneous assessment of how much this video makes you feel…" Six emotions were used to measure fear (tense, frightened, threatened, nervous, anxious, fearful); the other nine emotions (e.g., compassion, comforted) were added to make the intention of the video less salient. The six fear items formed a reliable scale, Cronbach's $\alpha = .94$.

Results. The fear manipulation showed the intended effects: Participants in the high fear condition reported higher levels of fear ($M = 2.65$, $SD = 1.10$) than those in the low fear condition ($M = 1.99$, $SD = 0.79$, $t(51) = 2.47$, $p = .02$; effect size: $r = .33$).

3.1.3 Ruling out unintended effects

To rule out unintended effects of either manipulation, we tested the effect of the fear manipulation on perceived psychological distance (we did not include the picture completion test in the conditions that pre-tested fear and therefore could not explore the effects of fear on the level of construal) and the effect of proximising on the level of reported fear. Using the same six fear items ($\alpha = .92$), it was found that participants in the proximal condition did not report more (or less) fear ($M = 2.13$, $SD = 0.78$) than those in the distant condition ($M = 2.42$, $SD = 0.88$, $t(86) = 1.62$, $p = .11$, $r = .17$). Thus, the distance manipulation elicited different levels of concrete versus abstract thinking without having unintended effects on fear. Neither did the fear manipulation lead to different perceptions of psychological distance (5 items, $\alpha = .90$) between participants in the low fear ($M = 3.69$, $SD = 1.36$) and high fear conditions ($M = 3.31$, $SD = 1.41$, $t(51) = 1.00$, $p = .32$, $r = .11$).

According to research on fear appeals, fear can undermine threat-reducing behaviours and elicit unproductive reactions instead (e.g., threat denial) when people believe that they are

not personally capable of responding to the threat or that the available response measures are ineffective (e.g., Maloney et al., 2011). To assess the possible influence of either manipulation on efficacy beliefs, both pre-tests included three items that measured beliefs about the efficacy of mitigation measures in general (e.g., "Introducing new carbon regulations will significantly decrease greenhouse gas emissions", Appendix C) and four items that measured participants' self-efficacy beliefs (e.g., "I am able to act effectively on climate change", Appendix C). Participants answered both scales on a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The seven items formed two sufficiently reliable scales in both pre-tests (general efficacy beliefs: $\alpha = .70$ / .73; self-efficacy beliefs: $\alpha = .67$ / .63).

It was found that neither the fear nor the proximising manipulation affected participants' confidence in their personal ability to mitigate climate change (p-values $\geq .38$). Neither did the fear manipulation affect participants' confidence in the efficacy of mitigation measures ($p \geq .73$). However, participants in the proximal condition were marginally more positive about the effectiveness of mitigation measures ($M = 3.68$, $SD = 0.81$) than participants in the distant condition ($M = 3.38$, $SD = 0.83$, $t(84) = 1.69$, $p = .10$, $r = .18$). In other words, we met our goal to create fear messages that maintained similar levels of perceived efficacy. Moreover, it seems that proximal messages may have a weak positive effect on people's beliefs about the effectiveness of mitigation measures.

3.2 Main study: Materials and methods

3.2.1 Participants and procedure

Participants were recruited through email lists (current and former students from a University in the UK), online ads (Craigslist, Facebook, online newspaper), and through different forums. As incentive we announced a prize draw with different prize options (e.g., iPods, vouchers).

In total, 344 participants completed the survey. To ensure good data quality we used three criteria to include participants. First, we only included participants who had confirmed

that they were participating seriously (Reips, 2007). Second, we only included participants who watched at least 75% of the video (fear manipulation) and had a maximal reading speed of 800 words per minute (proximising manipulation). Third, only residents of the UK were considered for analysis. When these three criteria were applied, the sample included 335 participants. Of these, five participants were excluded because they had more than ten missing values. The mean age of the 330 participants was 32.0 years (*SD* = 16.18; range: 17 to 81). The proportion of females was 56.4%. Although the sample was not demographically representative of the UK population, it included participants from various socio-economic backgrounds (Appendix E).

As a cover story, participants were asked to evaluate two alternative forms of communicating climate change (i.e., text vs. video) in order to help us refine materials for a future study. Each participant watched a video that induced either low or high levels of fear and read a text that either focused on proximal or distant climate change. After each manipulation, relevant processes were evaluated. After the two manipulations more general individual orientations to climate change were assessed. We then asked participants to indicate their support for steps to respond to climate change. Finally, participants answered some demographic questions and were debriefed.

To ensure that the presentation of either manipulation did not consistently influence the other, we counter-balanced the sequence in which participants watched the fear video and read the distance text. However, because the order in which the fear appeals and the proximal versus distant information were presented did not affect the dependent variables (see 3.2.3), we collapsed data across fear and distance, thereby reducing the study to a 2 (fear: low vs. high) x 2 (distance: proximal vs. distant) design.[1]

[1] To test whether the order in which the fear appeals and the proximal versus distant information were presented had an effect on the dependent variables, we carried out a three-way analysis of variance (ANOVA) with fear (low vs. high), distance (proximal vs. distant), and order of manipulations (fear first vs. distance first) as main

3.2.2 Manipulation and manipulation checks

We used the same manipulations to vary the levels of fear and proximity as in the pre-tests. To enhance the proximal versus distant priming, we added three questions framed as "reading checks" that repeated some of the condition-specific information. We also included some of the manipulation checks in Study 2. Specifically, we used the same emotion terms to check the effect of *fear* as in the pre-test. The six emotions, again intermixed with nine emotions that were unrelated to fear, formed a reliable scale ($\alpha = .93$, see Appendix C for all items used in Study 2). The fear manipulation showed the intended effects: Participants in the high fear condition reported higher levels of fear ($M = 2.55$, $SD = 1.02$) than those in the low fear condition ($M = 2.01$, $SD = 0.79$, $t(327) = 5.42$, $p < .001$; effect size: $r = .29$).

To assess perceived psychological distance of climate change, participants were presented with the same five semantic differential-type scales used in the pre-test ($\alpha = .90$). As anticipated, the ratings of perceived psychological distance were marginally lower among participants in the proximal condition ($M = 3.33$, $SD = 1.41$) than among participants in the distant conditions ($M = 3.59$, $SD = 1.30$, $t(328) = 1.74$, $p = .08$, $r = .10$).

As in the pre-tests, we found no unintended effects of the manipulations: Fear did not affect perceived psychological proximity, nor did proximising affect self-reported fear (both *t*-tests were not statistically significant, *p*-values $\geq .32$; Table 2). We also found no effects of either fear or proximising on levels of response efficacy beliefs (3 items, $\alpha = .80$) or self-efficacy beliefs (4 items, $\alpha = .80$; the four *t*-test were statistically not significant, *p*-values $\geq .23$). We therefore were confident that we met our goal to create messages that influenced the intended constructs but left other constructs largely unaffected.

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effects. The analyses of the order manipulation did not reveal any three-way interaction that was statistically significant at the 5% significance level.

3.2.3 Dependent variables

Perceived risk. To assess the extent to which participants considered climate change as a personally relevant risk, we asked them to judge the likelihood that four personal risks (e.g., "Certain effects of climate change will impair my health") and five local risks (Dietz et al., 2007; Leiserowitz, 2006) would occur due to climate change. To make the purpose of the study less obvious to participants, these five proximal consequences were additionally presented on the global level. Because of their conceptual similarity and based on inter-item correlations we combined the local and personal risk items into a single personal and proximal risk scale. The nine items formed a reliable scale ($\alpha = .88$).

Support for mitigation policies. Participants indicated their support for 11 policies that we presented as steps to decrease the amount of greenhouse gases "as a society" (Nilsson et al., 2004; Prillwitz & Barr, 2011; $\alpha = .85$).

Personal intentions to mitigate. We used 11 items (Lowe et al., 2006; O'Connor et al., 1999) to assess people's future intentions to engage in actions to mitigate climate change ($\alpha = .79$).

3.2 Results

To test our hypothesis that participants with a proximal perspective on climate change would rely more on low-level construal fear when they make risk judgments and decisions about responses to climate change, we conducted a two-way Analysis of Variance (ANOVA) with fear (low vs. high) and distance (proximal vs. distant) as factors. We also included gender and age as covariates to hold their influence constant across conditions.

Consistent with Study 1, portraying climate change in proximal (vs. distant) terms did not have a direct effect on participants' willingness to respond to climate change or on their efficacy beliefs (Table 2). However, participants who read the text with a more proximal focus on climate change reported higher personal and proximal risk perceptions ($M = 3.49$, $SD =$

0.77) than participants in the distant condition (M = 3.31, SD = 0.69, $t(328) = 2.25$, $p = .03$, r = .12). Fear did not have a direct effect on any of the dependent variables (p-values ≥ .23; Table 3).

Table 2

Main effects of proximising

	M_{prox}	SD_{prox}	M_{dist}	SD_{dist}	t	df	p
Personal and proximal risk perception	3.49	0.77	3.31	0.69	2.25	328	.03
Distant risk perceptions	4.17	0.77	4.26	0.69	1.22	328	.22
Mitigation policy support	3.37	0.76	3.36	0.75	0.11	328	.91
Mitigation intention	3.40	0.70	3.45	0.69	0.64	328	.53
Response efficacy beliefs	3.60	0.99	3.57	0.87	0.28	328	.78
Self-efficacy beliefs	3.13	0.77	3.18	0.80	0.49	328	.62

Note. prox = proximal framing of climate change, dist = distant framing of climate change.

Table 3

Main effects of fear

	M_{low}	SD_{low}	M_{high}	SD_{high}	t	df	p
Personal and proximal risk perception	3.39	0.74	3.41	0.72	0.29	328	.77
Distant risk perceptions	4.21	0.77	4.22	0.69	0.10	328	.92
Mitigation policy support	3.34	0.78	3.39	0.73	0.68	328	.50
Mitigation intention	3.40	0.70	3.45	0.69	0.68	328	.50
Response efficacy beliefs	3.52	0.92	3.65	0.95	1.19	328	.23
Self-efficacy beliefs	3.19	0.78	3.13	0.80	0.66	328	.51

Note. low = low fear video, high = high fear video.

Contrary to our prediction that participants would rely more on low-level construal fear when they have a proximal (vs. distant) perspective, none of the three Proximity (proximal vs. distant) x Fear (low vs. high) interaction terms was statistically significant (p-values ≥ .28; Appendix F). This was surprising, given the relatively clear interaction patterns in Study 1 and

the successful pilot studies and manipulation checks. One possible explanation for the lack of interaction effects is that experimentally induced fear (Study 2) may have had a different effect on people than what we assessed by self-reported levels of fear in Study 1. To explore this possibility further, additional interaction analyses were carried out, using self-reported levels of fear – rather than the two experimental fear conditions – as moderator.

When we analysed the data using the same regression analysis approach as in Study 1, again controlling for age and gender, we found that people's risk judgments were differently influenced by fear depending on whether they thought in terms of proximal or distant climate change (i.e., a significant interaction: $\beta = .15$, $t = 2.04$, $p = .04$, $\Delta R^2 = .01$, $\Delta F(1, 323) = 4.16$; Appendix G and Figure 2A): For participants with a proximal perspective (low-level construal) fear was positively associated with risk perceptions ($\beta = .37$, $t = 4.84$, $p < .001$), that is, the more people were afraid of climate change, the more they perceived it as a risk. Although fear was also positively related to risk perceptions among participants with a distant mind-set ($\beta = .14$, $t = 1.88$, $p = .06$), this relationship was substantially weaker than among participants with a proximal perspective (Figure 2A). This pattern is consistent with the prediction that low-level construal fear was more informative for participants with a proximal perspective.

In terms of personal mitigation intentions, a similar interaction between distance and fear was found ($\beta = .15$, $t = 2.15$, $p = .03$, $\Delta R^2 = .01$, $\Delta F(1, 323) = 4.61$; Appendix G and Figure 2B): The more people reported fear in the proximal condition, the more they were willing to take personal actions ($\beta = .37$, $t = 4.84$, $p < .001$). A similar trend was found in the distant condition, although again this was substantially weaker than in the proximal condition ($\beta = .15$, $t = 2.00$, $p = .05$; Figure 2B). Thus, participants who received proximal information again relied more strongly on fear when thinking about personal actions than those who received distant information, which is consistent with the expectation based on CLT and the findings from Study 1.

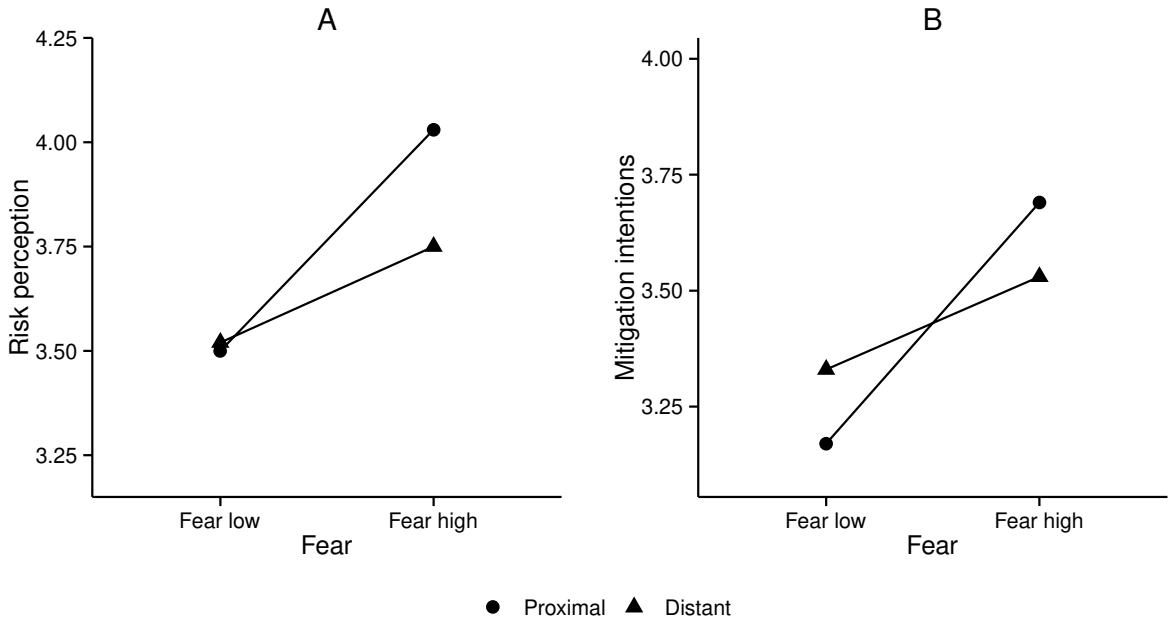

Figure 2. Simple slopes of psychological distance predicting risk perceptions (A) and mitigation intentions (B) for 1 SD below the mean of low-level construal fear and 1 SD above the mean of fear.

With regard to support for mitigation policies, the analysis did not reveal a significant interaction ($\beta = .06$, $t = .76$, $p = .45$, $\Delta R^2 = .00$, $\Delta F(1, 323) = .57$, Appendix G). For this analysis, the only theoretically relevant significant effect was of fear ($\beta = .19$, $t = 3.42$, $p < .001$), indicating that those who experienced more fear were more inclined to support mitigation policies. The distance manipulation had no effect beyond this, thus increasing proximity again had no straightforward effect on policy support.

All in all, the analyses using spontaneous, self-reported fear revealed very similar patterns to those found in Study 1 and provided additional evidence suggesting that psychological distance moderates what information people rely on when they make judgments and decisions. However, the absence of this interaction when fear was manipulated raises the question as to why manipulated fear leads to different results than measured fear (see next section for a discussion of possible explanations). Importantly, Study 2 confirmed that simple

proximization of climate change is not an effective strategy to increase individual action on climate change.

4. General Discussion

Moving people's attention from distant to proximal consequences of climate change is often suggested as a strategy to increase their sense of urgency and their motivation to respond to this issue (e.g., CRED, 2009; O'Neill & Nicholson-Cole, 2009). However, from the perspective of CLT (Trope & Liberman, 2003, 2010) – an approach that is concerned with how the psychological distance that lies between a person and what she or he is thinking about affects mental processes such as making judgments and decisions – it seems unlikely that zooming in on proximal climate change will have a direct effect on people's motivation to respond to climate change (see also Brügger, Dessai, Devine-Wright, Morton, & Pidgeon, 2015). Instead, CLT suggests that psychological distance determines what kinds of information people rely on to make judgments and decisions. Based on this perspective it was predicted and found that increasing the psychological proximity of climate change would not increase individuals' motivation to respond to climate change. The absence of a direct effect of the distance manipulation on climate-related responses parallels the findings of other studies that have also failed to find this (Schoenefeld & McCauley, 2015; Shwom et al., 2008; Spence & Pidgeon, 2010). Indeed, there is now more evidence that proximising climate change *does not* directly increase relevant individual action than there is evidence for this effect.

Instead, it was found that distance interacted with other things to determine individual responses. Participants with a proximal perspective relied more on corresponding self-reported low-level construal fear (Studies 1 and 2) when they made risk judgments and when deciding about possible responses. Conversely, when participants had a distant perspective on climate change, they based their perceptions and decisions more on abstract construals, which were operationalized as the extent to which people hold generalized sceptical beliefs about climate

change (Study 1). Importantly, the directions of these relationships were almost without exception consistent with previous research: More fear in the proximal condition was associated with greater perception of risk and more willingness to respond to climate change (Leiserowitz, 2006; Meijnders et al., 2001; Smith & Leiserowitz, 2012; Van Zomeren et al., 2010) and more scepticism in the distant condition was associated with lower perception of risk and less willingness to respond (Blennow & Persson, 2009; Joireman et al., 2010; Leiserowitz, 2006). In other words, these patterns appear to bear out insights about the impact of psychological distance on mental processes (e.g., Eyal et al., 2009; Ledgerwood, Trope, & Chaiken, 2010) within the context of climate change.

The findings of Studies 1 and 2 have at least two important implications for theory and practice. First, our findings suggest that the role of psychological distance and the effects of proximising are more complex than is commonly assumed. In particular, the frequent suggestion to highlight proximal consequences of climate change (e.g., CRED, 2009; Lorenzoni & Pidgeon, 2006) conflicts with the current theoretical and empirical standing of this strategy. According to CLT, distant events and decisions do not imply less engagement or involvement – as long as the event or decision will somehow and sometime become relevant to the individual (e.g., Ledgerwood, Trope, & Chaiken, 2010; Ledgerwood, Wakslak, & Wang, 2010). As such, proximising climate change does not automatically imply more involvement or engagement than more distant climate change, which is also consistent with previous implementations of the proximising strategy and the absence of direct effects of this (Shwom et al., 2008; Spence & Pidgeon, 2010). Thus, it seems important that researchers and climate change communicators acknowledge the complex influence of psychological distance. More specifically, revising the widely held view that proximising is simply and straightforwardly an effective strategy to motivate action on climate change may help to avoid disappointment about unsuccessful research projects and ineffective campaigns.

Second, the finding that psychological distance influences the kind of information people act on (rather than whether or not they act at all) points to the possibility that increasing distance can also increase responses to climate change provided it is combined with the "right" information (i.e., high-level construal information). In other words, a distant mental perspective might offer new opportunities for engaging with climate change (for a similar argument, see Brügger, Morton, & Dessai, 2015; Spence et al., 2012). One crucial opportunity is to create messages with either consistently concrete or consistently abstract information. When messages elicit a certain processing mode among people (i.e., a concrete vs. an abstract mind-set) and then provide information that fits people's current perspective (e.g., low-level construal fear vs. high-level construal scepticism), people will perceive the message as more fluent, easier to process, and more persuasive. Such "fitting" messages are therefore more effective at influencing how people act than messages that do not create fit (Kim et al., 2009; White, MacDonnell, & Dahl, 2011).

The idea of matching the right pieces of information is also relevant when considering the conceptual differences between the type of response (mitigation and adaptation) and the level of implementation (e.g., personal intentions and support for policies). Adaptation and mitigation are understood to work at different temporal and spatial scales (e.g., Füssel & Klein, 2006; Klein, Schipper, & Dessai, 2005). Adaptation typically focuses on measures that are spatially and temporally close and that yield immediate local benefits (low-level construal). In contrast, mitigation requires action around the globe and yields temporally delayed global benefits (high-level construal). The spatiotemporal differences between adaptation and mitigation suggest that people may construe these response strategies at different levels of psychological distance (Haden, Niles, Lubell, Perlman, & Jackson, 2012). Moreover, behavioural intentions and support for policies can be distinguished in terms of the social dimension of psychological distance: Personal behavioural steps focus on the individual and involve little psychological distance (low-level construal), whereas implementing policies

implies collective action and the involvement of strangers and therefore entails more social distance (high-level construal, Brügger, Morton, & Dessai, 2015). Extending our analysis, we believe that communicators could further increase the effectiveness of climate change messages if they follow the principles of creating "fitting" messages to the actions they are trying to encourage.

There are also some counter-intuitive propositions that follow from the present findings and reasoning. For example, there is reason to believe that in some circumstances an abstract and distant framing of climate change is superior to a concrete and proximal framing (see also Brügger, Dessai et al., 2015; Brügger, Morton, & Dessai, 2015; Fujita, Clark, & Freitas, 2014; McDonald, Chai, & Newell, 2015; Spence et al., 2012). Generally speaking, when people have a psychologically distant perspective, they are more likely to act in a way that is consistent with their central values and attitudes (e.g., Eyal et al., 2009; Ledgerwood, Trope, & Chaiken, 2010). This pattern has also been observed in the context of environmentally friendly behaviour (Rabinovich et al., 2010). Thus, framing climate change as a distant issue could help people with climate-friendly attitudes to act in accordance with their long-term goals.

A limitation of this research was that the samples were not representative of the general population in the UK. Participants of Study 1 were mainly female students. Although the sample of Study 2 was older (mean age: 32 years), more balanced in terms of gender (females: 56.4%), and was demographically relatively diverse, it was still not representative of the UK population (Appendix E). Representativeness is indeed an important issue, especially when one wants to make claims about the prevalence of specific beliefs and attitudes in the population. However, the purpose of this research was to study psychological processes. Although these processes could – at least in principle – differ across different sections of the general population, unrepresentative samples are typically unproblematic in terms of external validity (e.g., Druckman & Kam, 2011). Therefore, the limited representativeness of our sample is

unlikely to represent a significant threat to the findings of this study. It should, nonetheless, be noted and considered an important limitation.

Another limitation that we would like to discuss in more detail is that Study 2 did not reveal the predicted interactions when the two factors of psychological distance (proximal vs. distant) and fear (low vs. high) were systematically varied. The predicted interactions were only observed when – analogously to Study 1 – *measured* fear was substituted as a moderator. More specifically, participants in the proximal (vs. distant) condition relied more on self-reported fear when they made risk judgments and when they decided about whether they wanted to take personal actions on climate change. This raises the question as to how the differences between measured fear and manipulated fear can be explained.

One possible explanation as to why measured fear and manipulated fear may have led to different outcomes is that the assumed causal relationship between fear and the variables that were treated as dependent variables is actually reversed. More specifically, it could be that increased risk perceptions lead to more fear. If it were so, it would not be surprising that eliciting fear does not increase risk perceptions. However, while this explanation is plausible with regard to risk perceptions, it is less intuitively obvious why personal intentions to mitigate and stronger support for policies should lead to more fear – and yet, interactive effects of fear on each of these variables were also observed. Nonetheless, reverse causality is not entirely implausible since people do sometimes use their past behaviours to infer how they feel about an issue (Bem, 1972).

Second, it is possible that a process other than fear is responsible for the effects observed when spontaneous (measured) fear was used as moderator. For example, the extent to which people value their (proximal) natural environment (e.g., Brügger, Kaiser, & Roczen, 2011), have strong social ties to people in their community (Hidalgo & Hernandez, 2001), or are more generally attached to proximal places (Altman & Low, 1992; Scannell & Gifford, 2013) could increase their fear of the negative consequences of climate change. This could

explain why measured fear of (proximal) consequences is more important when proximal (vs. distant) consequences are made salient. Concomitantly, if a process other than fear is responsible for the observed interactions between psychological distance and spontaneous (measured) fear, then manipulating fear is obviously not tapping into the "right" process. Thus, this would also explain why manipulating fear does not lead to the same results as when fear is measured. Future research could explore the role of individual differences systematically by including corresponding measures (e.g., appreciation of nature, Brügger et al., 2011; place attachment at relevant scales, Devine-Wright, Price, & Leviston, 2015; Tu, Khare, & Zhang, 2012) as additional control variables and potential moderators of the influence of fear (and possibly also of proximising).

A third explanation for the slightly inconsistent pattern is that the fear manipulation did not affect the same aspect of fear that is captured when people report their spontaneous levels of fear. For example, it could be argued that spontaneously occurring fear reflects individuals' enduring tendencies to experience fear (i.e., trait fear) while the part of fear that is influenced by the manipulation is a more situational and therefore ephemeral fear experience (i.e., state fear; see also Lerner & Keltner, 2001). Differences between trait and state fear could lead to different outcomes. To illustrate, people who are generally fearful (i.e., for whom fear is a trait) pay more attention to negative information (Cisler & Koster, 2010), rely more strongly on fear to make judgments and decisions (Gasper & Clore, 1998), and also tend to avoid risks (Maner et al., 2007). Thus, it could be that fearful individuals are more likely to rely on their feelings of fear and to avoid risks than non-fearful individuals. It is unclear, though, why this tendency would be more pronounced when fearful individuals have a proximal perspective and think concretely as compared to when they have a more distant perspective and think more abstractly (as was found in both studies). One rather speculative explanation for the finding that trait fear was more relevant in the proximal (vs. distant) condition is that different traits might vary with regard to their levels of concreteness or abstractness. Values, for example, are commonly

regarded as broad and very general life orientations. In contrast to these, differences in the tendency to experience fear seem indeed more concrete. Thus, even though trait fear may be an individual characteristic that is stable over time and across different situations, the emotional component may still make this trait a concrete or low-level feature that people relied more on when they had a proximal (vs. a distant) perspective.

Another aspect of the present research that warrants some thought is the way psychological distance was operationalized. To examine the influence of distance, we used terms such as "where I live" and names of cities and regions in the UK when climate change was framed as a "proximal" issue. By contrast, "distant" climate change was operationalized with terms such as "worldwide" and by naming cities and regions in countries other than where participants lived (Appendix A and B). It would be interesting to explore the role of spatial distance more systematically and see how the findings presented in this research change when people were presented with information about negative climate change impacts at various scales (e.g., planet, continent, country, region, town, neighbourhood). From the perspective of CLT one would expect that the tendency to rely on concrete information (e.g., low-level construal fear) should become more pronounced with more proximising, whereas the tendency to rely on abstract information (e.g., high-level construal scepticism) should increase with greater distance. However, individual differences such as how strongly people feel attached to places at different spatial scales may complicate matters (Devine-Wright et al., 2015; Tu et al., 2012). To illustrate, it is possible that people who have always lived in the same place and who do not travel a lot care most about proximal consequences of climate change, while more mobile people respond more strongly to framings that use larger scales (Devine-Wright, 2013).

The last aspect of the present research that we would like to discuss concerns the potential interplay between different dimensions of psychological distance. The embedding of our spatial distance manipulation within the broader context of climate change may have simultaneously affected multiple dimensions of psychological distance. For example, using the

Industrial Revolution as a point of reference to quantify past changes in average temperatures, and mentioning the year 2100 in connection with projected increases in temperature (Appendix B) both introduce the dimension of temporal distance. Wordings such as "*most* scientists attribute" and "the yield of wheat *could* decrease by up to 5%" (Appendix B) imply different levels of certainty and could affect the dimension of hypotheticality. Moreover, reading about people who live in cities or rural areas induces feelings of social similarity to different degrees depending on the reader's place of residence.

In principle, the references to events that are proximal versus distant on other dimensions of psychological distance could have influenced the effectiveness of our spatial distance manipulation. For example, it is possible that the reference to future consequences of climate change may have increased the tendency to see climate change as a psychologically distant issue and, correspondingly, to represent it on a relatively more abstract level. A more abstract mind-set would have been consistent with the (spatially) distant condition and might have strengthened its effect. In contrast, the outlook of future events and the corresponding abstract mind-set would have been inconsistent with the predicted concrete mind-set in the (spatially) proximal condition and might have weakened the tendency to think concretely.

Having said this, the partially successful manipulation checks in Studies 1 and 2 suggest that it is unlikely that the references to other dimensions of psychological distance neutralized the effect of the manipulation. We believe that the interaction between the four dimensions of psychological distance is a promising avenue of research and strongly encourage future studies to look more systematically at these interactions, for example, by conducting experiments where several dimensions are manipulated simultaneously (see also Kim, Zhang, & Li, 2008; McDonald et al., 2015; Zhang, He, Zhu, & Cheng, 2014).

A strength of the present research was that it shed some new light on the interplay between emotions and psychological distance, which is still an under-researched area (for a notable exception, see Hart, Stedman, & McComas, 2015). There are at least two sets of

questions that could be addressed by future research. First, it would be interesting to test the prediction that low-level construal emotions in general (not only fear) are more relevant for judgments and decision-making when people have a psychologically proximal perspective. Another avenue for future research is related to the idea that some emotions involve distancing on at least one dimension of psychological distance (e.g., anticipation involves projections into the future). As such, high-level construal emotions require more mental construal and are believed to be represented at a more abstract level than emotions that do not involve distancing (Liberman et al., 2007). Following the idea that people preferentially rely on information that is consistent with their current mind-set, one would expect that when people think of climate change as a distant phenomenon, high-level construal emotions would have a similarly strong influence on judgments and decisions as high-construal beliefs. Future research could test these expectations by combining different low-level (e.g., fear, sadness, and anger) and high-level emotions (e.g., guilt, shame, and hope) with psychological distance and proximity. Because currently there is only little research available on this theoretically assumed differentiation of low-level and high-level construal emotions, investigations into this direction would also benefit our understanding of CLT more generally.

5. Conclusion

The findings presented in this research challenge the idea that simply proximising climate change increases individuals' motivation to act. Instead, consistent with CLT, our results suggest that psychological distance does not straightforwardly translate into different levels of engagement with climate change. Rather, variation in psychological distance seems to influence what perceptions and decisions are based on (low- vs. high-level construal information). Consistent with this idea we show that fear (a low-level emotion) is a stronger predictor of risk perceptions and certain forms of policy support when people are in a proximal

mind-set, whereas more abstract beliefs associated with scepticism are stronger predictors of these things when people are in a distant mind-set.

In a nutshell, then, the role of psychological distance (i.e., proximising) is more complex than people seem to assume. This may imply dashed hopes and expectations on the one hand; but the complexities revealed in this research also offer room for creative and innovative new avenues to communicate climate change. More generally, this work suggests that it may be time to put accepted wisdom more fully to the test when applying established psychological theories to the task of improving climate change communication.

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Appendix

Appendix A. Manipulation of psychological distance (Study 1; distant condition in italics):

What is climate change and what are the consequences?

'Climate' is defined the average weather experienced in a region over a long period (usually more than 30 years). 'Climate change' refers to changes in the Earth's temperature and other climate-related phenomena (e.g., rainfalls, wind, humidity) since the end of the 19th century. In the UK *(Across the globe)* average temperatures have risen by about 0.7°C from 1900 to 2000. It is important to note that changes in average temperatures are associated with other climatic changes. For instance, in the UK *(all over the world)* summers have already become hotter and drier whereas winters have become milder and wetter.

There is now very strong evidence that the observed changes in the climate cannot be explained by natural causes alone. Scientists attribute climate change to human past and present behaviour, especially to greenhouse gas emissions (i.e., CO_2, methane), which artificially warm the earth's atmosphere. Scientists also argue that due to past emissions of greenhouse gases the UK *(planet)* is already committed to a certain amount of climate change over the next couple of decades. This will have impacts on humans, animals, and plants.

Appendix B. Manipulation of psychological distance (Study 2; distant condition in italics):

What is climate change?

'Climate' is defined as the average weather experienced in a region over a long period (usually more than 30 years). 'Climate change' refers to changes in the Earth's temperature and other climate-related phenomena (e.g., rainfalls, wind, humidity) since the industrial revolution.

In the UK, average *(Average global)* temperatures have risen by about 1°C between 1900 and 2010. It is important to note that changes in average temperatures are associated with other local *(global)* climatic changes. For instance, in the UK *(many places around the world)* summers have already become hotter and drier. The average duration of very hot summer days has increased significantly *(worldwide)* since 1961 in all regions of the UK.

There is growing evidence that these observed changes in climate cannot be explained by natural causes alone. Most scientists attribute recent climate change to human behaviour, especially to greenhouse gas emissions (i.e., carbon dioxide, methane), which artificially warm the earth's atmosphere. A substantial proportion of these emissions are caused by deforestation and burning fossil fuels – such as oil and coal – to produce food, heat buildings, and drive cars.

What are the consequences of climate changes for the UK *(world)*?

Experts expect that *(average global)* temperatures in the UK could rise further between 1°C and 8°C by 2100. Such temperature rises will have impacts on humans, animals, and plants:

- Hot and dry summers will become much more frequent. The effects of heat-waves will not only be experienced in large cities like London, Birmingham, or Manchester *(New York, Delhi, or Tokyo),* where buildings and streets absorb and radiate the energy from the sun, but also in small villages. People living in rural areas will also have their share of the heat. Droughts and water scarcity will occur more regularly, especially in the

Appendix B continues

Appendix B continued

south of Britain *(Central America, Southern Africa, and Southeast Asia).* As a consequence, local councils *(international governments)* will need to restrict water use within their communities. Although some agricultural areas in North England and Scotland *(Scandinavia or northern Russia)* may benefit from warmer temperatures and longer growing seasons, overall climate change will decrease agricultural yields in the UK. For example, yield of wheat *(rice)* could decrease by up to 5% across Britain *(Southeast Asia).*

- Winters and springs will become wetter. Climate change will bring more frequent and heavy downpours. More intense rainfalls are likely to be followed by surface water as well as sewer and groundwater flooding. Currently, one in six people in England and Wales *(around the world)* are at risk from flooding. Climate change will increase the number of buildings and infrastructure at risk from flooding and even threaten people's lives.

- Sea-levels will rise. Scientists predict that the average sea-level around the UK *(world)* will rise by 20 to 60 centimetres or even more in the next 100 years. The following regions would be particularly at risk from rising sea-levels and erosion:

  - south Wales *(Bangladesh)*
  - north-west Scotland *(China)*
  - Yorkshire and Lincolnshire *(Philippines)*
  - East Anglia *(Tuvalu)*
  - Thames Estuary *(Maldives)*

All in all, climate change will have many different impacts on the natural and human environment in the UK *(around the world)*. Some of these consequences may seem positive (i.e., increased warmth *in currently cold regions*). But, the majority of changes will be negative.

Appendix C. Items used in Studies 1 and 2.

	Studies	
Scales and items	1	2
Local and personal risk perceptions (N = 7 / 9)		
Water shortages will occur where I live	(X)	X
Food shortages will occur where I live	(X)	-
Standard of living of many people in the UK will decrease	(X)	X
Health problems in the UK will increase	(X)	X
Number of species lost in the UK will increase	(X)	X
The UK's economic situation will deteriorate	(X)	-
More flooding will occur where I live	(X)	X
Climate change will have negative consequences for me	-	X
Certain effects of climate change will impair my health	-	X
I will experience the consequences of severe weather events	-	X
I will experience more heat-waves because of climate change	-	X
Global risk perception (N = 7 / 5)		
Worldwide water shortages will occur	(X)	X
Food shortages will occur in much of the world	(X)	-
Standard of living of many people in the world will decrease	(X)	X
Health problems in the world will increase	(X)	X
Number of species lost in the world will increase	(X)	X
The world's economic situation will deteriorate	(X)	-
More flooding will occur worldwide	(X)	X
Fear items (N = 4 / 6)		
Tense	X	X
Nervous	X	X
Anxious	X	X
Fearful	X	X
Frightened	-	X
Threatened	-	X
Scepticism (N = 6)		
Climate change is caused only by natural processes	X	-
Experts are agreed that climate change is a real problem (recoded)	X	-
The media is often too alarmist about issues to do with climate change	X	-
The evidence for climate change is unreliable	X	-
I am uncertain if climate change is happening	X	-
I do not believe climate change is a real problem	X	-
Psychological distance (N = 5)		
To me, climate change feels very close … very distant	-	X
To me, climate change feels like here … like at the other end of the world	-	X
To me, climate change feels like tomorrow … like thousands of years away	-	X
To me, climate change feels like affecting me … like affecting distant strangers	-	X
To me, climate change feels very real … very hypothetical	-	X

Appendix C continues

Appendix C continued

	Studies	
Scales and items	1	2
*Mitigation policy support (*N = *11 / 11)*		
Ban the driving of cars in certain areas	X	X
Ban the production of vehicles with gas / fuel mileage below 75 miles per gallon (very fuel efficient)	X	X
Increased fuel and diesel taxes	X	X
Increased household electricity taxes	X	X
Congestion charging on busy roads	X	X
Air travel taxation (e.g., on ticket prices)	X	X
Subsidies for electric (emission-free) vehicles	X	X
Introducing labels stating carbon content	X	X
Teach children about the causes, consequences, and potential solutions to climate change	X	X
Subsidies for the household production of green energy (e.g., small wind turbines and solar panels)	X	X
Increasing general taxation to pay for public transport	-	X
Requirement for fossil fuel power stations to implement carbon capture and storage procedures	X	-
*Adaptation policy support (*N = *12)*		
Invest in upgrade of flood defences to a higher standard	X	-
Tax for protection and creation of wetlands (improves flood protection and contributes to biodiversity)	X	-
Close access to vulnerable places, including some recreation areas, marinas, and hiking trails	X	-
Reduce pressure on systems or areas at risk (e.g. fewer fishing and hunting licences)	X	-
Relocation of dwellings away from flood-prone areas	X	-
Increase prices for water consumption (helps to avoid water shortages)	X	-
Increase national development assistance to help developing countries to adapt to climate change	X	-
Produce and distribute guidance on how to avoid heat stress	X	-
Hosepipe restrictions during the summer	X	-
Introduce building codes to make houses more thermally comfortable with longer and hotter summers	X	-
Tax to establish a fund to alleviate unavoidable climate change impacts in the UK	X	-
Creation of habitat corridors for animals (e.g. bridges over motorways)	X	-
Mitigation intentions (N = 10 / 11)		
Choose a car that gets good fuel mileage	X	X
Install (more) insulation at home	X	X
Car sharing / Use car sharing pools	X	X
Using public transport (more often)	X	X
Walking and cycling (more)	X	X
Replace older appliances with more energy efficient new models (e.g. refrigerators)	X	X
Join an environmental group	X	-
Carbon offset flights	X	X
Eat less meat	X	X
Reduce the number of new things you buy	X	X
Spend holiday in the UK rather than abroad	-	X
Ask your MP to support a strong climate change bill	-	X

Appendix C continues

Appendix C continued

	Studies	
Scales and items	1	2
Adaptation intentions (N = 9)		
Repaint your (future) house in a lighter colour (less heat absorption in the summer)	X	-
Buy a flood insurance for your (future) house	X	-
Install a water re-use system at home (avoid water shortages during droughts)	X	-
Donate money to preserve species at risk from climate change	X	-
Persuade relatives or friends to move away from flood plains	X	-
Fit water saving device in your cistern to save when flushing	X	-
Read about how to avoid heat stress during heat waves	X	-
Find out how much your (future) house or flat is at risk from flooding	X	-
Donate money for projects in developing countries that move housing estates away from areas at risk	X	-
Personal efficacy (N = 4)		
I am able to act effectively on climate change	-	X
Making a contribution to reduce climate change is easy for me	-	X
I can easily adopt a low-carbon lifestyle	-	X
Reducing carbon emissions is extremely difficult for me	-	X
General action efficacy beliefs (N = 3)		
If everyone does their bit we can reduce climate change	-	X
Individual behaviour change (e.g., driving less) is effective in combatting climate change	-	X
Introducing new carbon regulations will significantly decrease greenhouse gas emissions	-	X

Note. X = item used; - = item not used. In Study 1 participants only judged risks on the spatial scale that was consistent with the experimental conditions they were assigned to. This is indicated with bracketed Xs.

Appendix D. Main and interactive effects of distance, scepticism and fear on risk perceptions and response measures, holding constant the influence of age and gender.

	Step 1				Step 2					
	B	*SEB*	*β*	R^2	*B*	*SEB*	*β*	R^2	ΔR^2	ΔF
Risk perception (*N* = 77)										
Gender[1]	-.35	.18	-.20$^+$	.26	-.37	.17	-.21*	.39	.13	7.16**
Proximising[2]	-.40	.14	-.30**		-.41	.13	-.30**			
Fear	.07	.09	.08		-.09	.12	-.11			
Scepticism	-.26	.10	-.29**		-.53	.12	-.58***			
Proximising X Fear					.38	.17	.33*			
Proximising X Scepticism					.62	.18	.47***			
Mitigation intentions (*N* = 77)										
Gender[1]	-.29	.16	-.18$^+$	.26	-.29	.17	-.18$^+$	.26	.00	0.00
Proximising[2]	-.04	.12	-.03		-.04	.13	-.03			
Fear	.11	.08	.15		.11	.12	.14			
Scepticism	-.34	.09	-.41***		-.34	.13	-.41*			
Proximising X Fear					.01	.17	.01			
Proximising X Scepticism					.00	.18	.00			
Adaptation intentions (*N* = 76)										
Gender[1]	-.16	.17	-.10	.26	-.17	.17	-.10	.28	.02	0.99
Proximising[2]	.02	.13	.02		.02	.13	.02			
Fear	.15	.09	.18$^+$		.07	.13	.08			
Scepticism	-.38	.09	-.43***		-.47	.13	-.54***			
Proximising X Fear					.17	.18	.15			
Proximising X Scepticism					.23	.19	.18			
Mitigation policies (*N* = 77)										
Gender[1]	-.15	.14	-.12	.20	-.15	.14	-.11	.26	.06	2.72$^+$
Proximising[2]	.07	.11	.07		.07	.11	.07			
Fear	-.04	.07	-.06		-.21	.11	-.32*			
Scepticism	-.30	.08	-.43***		-.35	.10	-.50***			
Proximising X Fear					.33	.14	.37*			
Proximising X Scepticism					.14	.15	.14			
Adaptation policies (*N* = 76)										
Gender[1]	-.25	.14	-.20$^+$	.23	-.26	.14	-.20$^+$	.28	.05	2.25
Proximising[2]	.05	.11	.05		.04	.10	.05			
Fear	.04	.07	.06		-.01	.10	-.01			
Scepticism	-.28	.07	-.41***		-.41	.10	-.60***			
Proximising X Fear					.13	.14	.15			
Proximising X Scepticism					.30	.14	.31*			

Note. [1] female = 1, male = 2; [2] distant = 0, proximal = 1; *** $p < .001$, ** $p < .01$, * $p < .05$, $^+$ $p < .10$.

Appendix E. Demographic characteristics of participants in Study 2.

	%
Gender	
Female	56.4
Male	43.6
Age	
16–24	52.4
25–44	22.7
45–64	19.4
65 and over	5.5
Household yearly income	
Up to £7000	6.1
£7001 - £14000	7.0
£14001 - £21000	7.0
£21001 - £28000	9.7
£28001 - £34000	7.3
£34001 - £41000	6.9
£41001 - £48000	4.8
£48001 - £55000	7.6
£55001 - £62000	6.9
£62001 or more	10.6
Prefer not to say	26.1
Qualifications	
O-levels	1.2
A-level or equivalent	42.4
Higher national diploma	3.7
Degree or equivalent	19.7
Post-graduate qualification	29.7
Prefer not to say	3.3
Area density	
Remote Area	5.2
Village	22.7
Town	31.5
City (Suburban)	22.1
City (Central/Inner Area)	18.5
Political orientation	
far left	2.4
left	15.2
slightly left	23.0
middle	13.6
slightly right	16.4
right	5.2
far right	0.6
Prefer not to say	23.6

Appendix F. Summary table for two-way analysis of variance of the effects of proximising and fear induction on risk perceptions and response measures, holding constant the influence of age and gender.

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
Risk perception						
Age	1	1.66	1.66	3.22	.07	.01
Gender	1	6.11	6.11	11.84	.00	.04
Proximising	1	3.42	3.42	6.63	.01	.02
Fear	1	0.07	0.07	0.13	.72	.00
Proximising X Fear	1	0.14	0.14	0.27	.60	.00
Within cells	324	167.27	0.52			
Mitigation intentions						
Age	1	0.08	0.08	0.16	.69	.00
Gender	1	7.55	7.55	16.34	.00	.05
Proximising	1	0.04	0.04	0.08	.78	.00
Fear	1	0.29	0.29	0.64	.43	.00
Proximising X Fear	1	0.01	0.01	0.03	.87	.00
Within cells	324	149.76	0.46			
Mitigation policies						
Age	1	0.41	0.41	0.74	.39	.00
Gender	1	5.77	5.77	10.41	.00	.03
Proximising	1	0.08	0.08	0.14	.71	.00
Fear	1	0.30	0.30	0.55	.46	.00
Proximising X Fear	1	0.64	0.64	1.15	.29	.00
Within cells	324	179.54	0.55			

Appendix G. Main and interactive effects of proximising and measured fear on risk perceptions and response measures, holding constant the influence of age and gender.

	Step 1				Step 2					
	B	*SEB*	*β*	R^2	*B*	*SEB*	*β*	R^2	ΔR^2	ΔF
Risk perception										
Age	.01	.00	.12*	.11	.01	.00	.12*	.12	.01	4.16
Gender[1]	-.24	.08	-.17**		-.25	.08	-.17**			
Proximising[2]	.22	.08	.15**		.22	.08	.15**			
Self-reported fear	.18	.04	.24***		.11	.06	.14^{+}			
Proximising X Fear					.17	.08	.15*			
Mitigation intentions										
Age	.00	.00	.04	.11	.00	.00	.04	.12	.01	4.61
Gender[1]	-.28	.08	-.20***		-.28	.08	-.20***			
Proximising[2]	.00	.07	.00		.00	.07	.00			
Self-reported fear	.18	.04	.25***		.11	.05	.15*			
Proximising X Fear					.16	.08	.15*			
Mitigation policies										
Age	.00	.00	.07	.06	.00	.00	.06	.07	.00	0.57
Gender[1]	-.24	.09	-.16**		-.25	.09	-.16**			
Proximising[2]	.05	.08	.03		.05	.08	.03			
Self-reported fear	.15	.04	.19***		.12	.06	.15*			
Proximising X Fear					.07	.09	.06			

Note. N = *329;* [1] female = 1, male = 2; [2] distant = 0, proximal = 1; *** $p < .001$, ** $p < .01$, * $p < .05$, $^{+}$ $p < .10$.

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