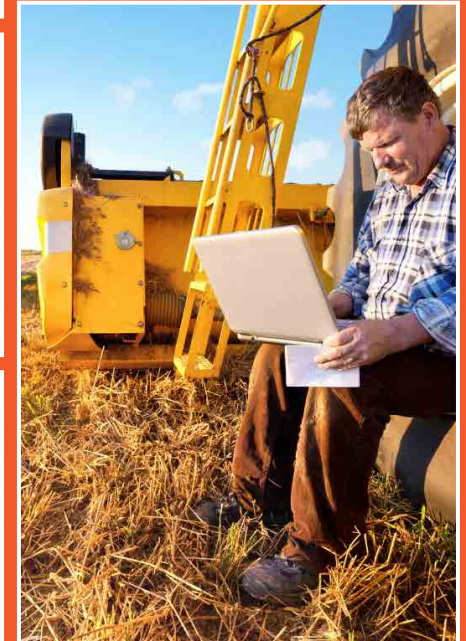# Climate Visuals

Seven principles for visual climate change communication (based on international social research)

CLIMATE outreach formerly COIN

The Minor Foundation for Major Challenges

10:10

gcca Global Call for Climate Action

UMassAmherst

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Climate Outreach

Climate Outreach (formerly COIN) is a charity focused on building cross-societal acceptance of the need to tackle climate change. We have over 10 years of experience helping our partners to communicate and think about climate change in ways that reflect their individual values, interests and ways of seeing the world. We work with a wide range of partners including central, regional and local governments, charities, trades unions, business and faith organisations.

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Global Call for Climate Action (GCCA)

The GCCA is a diverse network of more than 450 non-profit organizations in more than 70 countries with a shared goal – a world safe from runaway climate change. The GCCA harnesses the strengths of faith, development, science, environment, youth, labour, and other civil society organisations to mobilise citizens and galvanise public opinion in support of urgent climate action. We connect and facilitate the efforts of our partners; we communicate about climate challenges and solutions; and we help partners mobilise people in support of strong, equitable government action.

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JANUARY 2016

Contents

Many of the images shown in this report are recommended for use in visual climate change communication. As such, clicking on them will take you to their respective pages on *climatevisuals.org*. The report also provides hyperlinks to all Creative Commons licenses referred to.

Every day, thousands of images of climate change are shared around the world. But while research on the verbal and written communication of climate change has proliferated, our understanding of how people interpret visual images of climate change is limited to a much smaller number of academic studies, which do not provide much in the way of practical guidance for communicators. As a result, the iconography of climate change has remained relatively static.

© Abbie Trayler-Smith / UK DFID

This report summarises the research underpinning the Climate Visuals website (climatevisuals.org) and presents the key findings so that practitioners can take an evidence-based approach to visual communication. The imagery used to communicate climate change can and should be more diverse than polar bears and melting ice. Climate Visuals takes the first steps towards helping communicators tell a better visual story about climate change.

The research combined two different methods. Four structured discussion groups (with a total of 32 citizens) were held: two in London and two in Berlin. Participants responded to dozens of climate images, engaging in detailed discussions about what they saw. Following this in-depth research, an international online survey of 3,014 people was conducted, with participants split equally between the UK, Germany and the US. The survey allowed us to test a smaller number of images with a much larger number of people.

Following directly from these key findings, climatevisuals.org is organised and structured to be as useful as possible for communicators. There are four galleries (Climate Causes, Climate Impacts, Climate Solutions and New Stories), containing several hundred images which correspond to and illustrate the key findings from the research – the only evidence-based library of climate photography in existence. Every one of the images featured in the image bank is clearly labelled, categorised and captioned for ease of use.

1 Show 'real people' not staged photo-ops

A person expressing an identifiable emotion is powerful. But our discussion groups favoured 'authentic' images over staged photographs, which they saw as gimmicky or even manipulative. Politicians – notoriously low on credibility and authenticity – attracted some of the lowest scores (in all three nations) in our survey.

2 Tell new stories

Images that participants could quickly and easily understand – such as smokestacks, deforestation, and polar bears on melting ice – tended to be positively rated in our online survey (which captured rapid responses to images, rather than deeper debate). Familiar, 'classic' images may be especially useful for audiences with limited knowledge or interest in climate change, but they also prompted cynicism and fatigue in our discussion groups. They are effective ways of communicating to an audience that 'this story is about climate change'. But is it a story they want to hear? Less familiar (and more thought-provoking) images can help tell a new story about climate change, and remake the visual representation of climate change in the public mind.

3 Show climate causes at scale

We found that people do not necessarily understand the links between climate change and their daily lives. Individual 'causes' of climate change (such as meat-eating) may not be recognised as such, and if they are, may provoke defensive reactions. If communicating the links between 'problematic' behaviours and climate change, it is best to show these behaviours at scale – e.g. a congested highway, rather than a single driver.

4 Climate impacts are emotionally powerful

Survey participants in all three nations were moved more by climate impacts – e.g. floods, and the destruction wrought by extreme weather – than by 'causes' or 'solutions'. Images of climate impacts can prompt a desire to respond, but because they are emotionally powerful, they can also be overwhelming. Coupling images of climate impacts with a concrete behavioural 'action' for people to take can help overcome this.

5 Show local (but serious) climate impacts

When images of localised climate impacts show an individual person or group of people, with identifiable emotions, they are likely to be most powerful. But there is a balance to be struck (as in verbal and written communication) between localising climate change (so that people realise the issue is relevant to them) and trivialising the issue (by not making clear enough links to the bigger picture).

6 Be very careful with protest imagery

Images depicting protests (or protesters) attracted widespread cynicism and some of the lowest ratings in our survey. In our discussion groups, images of (what people described as) 'typical environmentalists' only really resonated with the small number of people who already considered themselves as activists and campaigners. Most people do not feel an affinity with climate change protesters, so images of protests may reinforce the idea that climate change is for 'them' rather than 'us'. Protest images involving people directly affected by climate impacts were seen as more authentic and therefore more compelling.

7 Understand your audience

Unsurprisingly, levels of concern/scepticism about climate change determined how people reacted to the images we tested. But other differences emerged too – images of 'distant' climate impacts produced much flatter emotional responses among those on the political right. Images depicting 'solutions' to climate change generated mostly positive emotions – for those on the political right, as well as those on the left.

Humans are visual animals: our understanding of the world is dominated by what we see, and how this makes us feel. But despite decades of public engagement (and the proliferation of research on the verbal and written communication of climate change), there is sparse evidence on which to base a choice that thousands of journalists, activists, bloggers and educators face on a daily basis: how to communicate climate change effectively using the visual medium.

The problem is not a lack of potential imagery. Images depicting the causes and impacts of climate change (e.g. smokestacks, Arctic sea ice and polar bears) are common, as are graphical or scientific representations of the issue, such as diagrams of the greenhouse effect. Images depicting people tackling or adapting to climate change are also frequently used – including climate protests, international leaders signing agreements and people installing solar panels – though less so than impacts.[1]

But climate change isn't an easy issue to visualise. Characterised by uncertainty and made up of long-term, cumulative processes that often cannot be directly observed, it is for many audiences – particularly those in industrialised nations – intangible and abstract. A decision made by activists in the 1980s to associate climate change with one iconic animal – the polar bear – has provided a simple visual shorthand for the issue.[2] But it has also reinforced the impression that climate change is a distant problem[3], and arguably 'closed down' the climate discourse around a concept that is remote from people's day-to-day lives.

So how should climate change communicators proceed? On the one hand, there are certain universal truths of photography that seem to apply to climate images too – for example, the importance of including identifiable people, or being able to make 'eye contact' with the subject of a photograph.[4] But the limited amount of research on visual climate change communication that is available has highlighted how difficult it is to use images of climate to effectively engage the public.

Photo: Marc van Woudenberg (CC BY-SA 2.0)

Dramatic and potentially fear-inducing images of climate impacts and extreme weather are good at capturing people's attention (they have high 'salience'). They may make climate change seem more important, and are emotionally powerful.[5] However, they can also act to distance viewers (both psychologically and geographically) leaving them feeling overwhelmed.[6] Images of climate 'solutions' tend to make people feel more able to do something about climate change (they have high 'efficacy'), but at the same time can reduce people's sense that the issue is an important one, as they typically don't convey a sense of threat or risk to the viewer.[7]

Plus, different people react in different ways to similar images. According to one study[8], participants were more touched by national and local imagery because it was easier to relate to, and consequently more upsetting. However, in another study four years later, the same reasoning was used by participants to argue that local iconography is disengaging, and will "only affect locals and is not as much of a global issue". [9]

As a result, research almost always stops short of providing constructive, practical guidance for communicators. Although some recent publications have begun to fill this gap[10], there has not (until now) been any evidence-based photo libraries for climate change communicators using the visual medium. In the absence of a practically focused evidence-base, campaigners have had to rely on intuition and experience, focusing on the interests of their supporters, and the 'brand values' of their organisations to guide their visual choices. Journalists, photo-desks and sub-editors must make choices about how to illustrate their written content in a hurry, and familiar 'classic' images still understandably tend to dominate media coverage.[11]

A pressing challenge for climate change communicators is to widen and deepen public engagement with climate change. Reaching out of the 'green ghetto' means telling new stories about climate change that connect with the values of a much broader range of people. But while the move towards a more diverse and inclusive style of verbal and written climate communication has gathered pace[12], the iconography of climate change has remained relatively static.

The imagery used to communicate climate change can and should be more diverse than polar bears and melting ice. Climate Visuals takes the first steps towards helping communicators tell a better visual story about climate change.

The research which underpins climatevisuals.org was conducted during Spring/Summer 2015. Further details on the methodology can be found in a separate Appendices document.* The images used in the survey are presented in Table 1 (p. 12-13), which also features many of the images used in the discussion groups.

Stakeholder interviews

A series of informal interviews were conducted with academics and practitioners from the UK, Europe and the US (see Appendix 2* online for a list of interviewees and key points). The interviews ensured that the research focused on the most important questions for climate change communicators, and followed from existing literature and best-practice.

Discussion groups

A series of four facilitated discussion groups were held, involving a total of 32 people. Two of the workshops took place in London, and two in Berlin. Participants were recruited for the workshops via an online advert. The advert was distributed via local discussion forums, classified sites such as Gumtree, local email networks and social media. Participants were recruited according to a quota reflecting key national demographic characteristics (age, gender, ethnicity and occupation). There were 16 men and 16 women, from a range of backgrounds. In the UK, this included students, a civil servant, and a company director, and ages ranged from 18-80. Three participants identified themselves as belonging to an ethnic minority group. In Germany, the age span was 18-44, two were from an ethnic minority background, and participants were from a range of different countries including Spain and Canada, as well as Germany. The majority of participants were university students or postgraduates. A financial incentive was offered to aid participation (£35 in the UK and €45 in Germany).

Photo: Patrick Bentley / Solar Aid (CC BY 2.0)

* The Appendices document can be found on climatevisuals.org.

Box 1: Discussion group methods

Image sets

- The location of the images ('local' vs 'distant' for European participants)
- The presence of people
- Images of protesters
- Images of politicians and celebrities
- 'Cliched' climate imagery
- Climate 'causes'
- Climate 'impacts'
- Climate 'solutions'

Factors assessed

- Understanding/salience: whether participants understood what the image conveyed, and whether they would (or could) associate it with climate change
- Psychological distance/ self identification: whether participants 'connected' with the image, and whether the people in it seemed familiar or unfamiliar
- Affect (emotion): how the image made the participants feel
- Action (efficacy) and personal engagement: whether the image made the participants want to do something, or not
- Politics and values: the political messages and values the image conveyed, and how the participants responded to them
- Aesthetics and humour: whether participants found the image visually attractive; whether it surprised them or made them laugh

The design of the workshop was adapted from the Climate Outreach 'Narrative Workshop' methodology[13] whereby participants first discussed their values and sense of identity, before the topic of climate change was introduced. In the second half of the discussion groups, participants were shown a series of images and their responses to climate change imagery were explored. The images presented were varied according to a number of different dimensions (derived from our review of the existing literature) and presented in the 'sets' described in Box 1. Some of the images are shown in Table 1 below. Participants' responses were assessed according to a number of different factors (see Box 1).

International online survey

Research Now, a market research firm, was contracted to conduct a three-country, online survey in the US, UK and Germany. A nationally representative sample (for geographic region, gender and age) in each country was drawn from large internet panels Research Now maintains in the three target locations (US = 1001, UK = 1007 and Germany = 1006). Participants were contacted by Research Now and invited to participate in a 15-20 minute survey; all respondents were paid for their participation. The survey was conducted in English for the UK and US samples, and in German for the German sample.

Initially, participants responded to a series of well-established psychological measures that we anticipated would be related to their views about climate change and their evaluation of the images in the study. These included questions designed to capture people's levels of empathy, tolerance for 'ambiguity', beliefs about technology, worldviews, political ideology and attitudes towards the future. Then, participants were asked to list the first image that came to mind when they thought about climate change. Next, participants were shown a series of six images, which were selected from the larger bank of images in the Discussion Group study. The survey images are shown in Table 1 (p. 12-13).

In each country sample, participants were randomly assigned so that they saw one of three sets of images, portraying either climate change causes, impacts or solutions. Thus, approximately 333 participants in each of the three countries saw either the causes, impacts or solutions images. Images were shown one at a time, in a random order for different participants. After each image was shown, participants were asked a series of ten questions (shown in Box 2, p. 11).

Finally, participants answered a number of questions related to their beliefs about climate change and willingness to take various actions (see the Appendices on climatevisuals.org for further details).

Photo: Colville-Andersen (CC BY-NC 2.0)

Box 2: Survey methods – Questions on participants' reactions to images

Q1: "To what extent do you feel as though you have an understanding of what this image is trying to convey?" (not at all, not very much, a little bit, somewhat, completely)

Q2: "On a scale of -5 to +5, where -5 equals 'really negative' and +5 equals 'really positive', how does this image make you feel?"

Q3: "How motivated do you feel to seek out more information about what this image depicts?" (not at all motivated, a little motivated, somewhat motivated, very motivated)

Q4: "Compared to most other images about climate change that you've seen, how much more or less willing would you be to share this image with friends on social media?" (much less willing, a little less willing, neither more nor less willing, a little more willing, much more willing)

Q5: "Does the image make you want to change your own behaviour to reduce your impact on the environment?" (not at all, not very much, a little bit, somewhat, very much)

Q6: "Does the image make you more or less supportive of government policies to tackle climate change?" (much less supportive, somewhat less supportive, slightly less supportive, neither more nor less supportive, slightly more supportive, somewhat more supportive, much more supportive)

Q7: "Would this image make someone feel like climate change is a more urgent problem or less urgent problem?" (not at all urgent, not very urgent, a little bit urgent, somewhat urgent, very urgent)

Q8: "After seeing this image, how supportive do you think someone would be of government policies focused primarily on preventing climate change?" (not at all supportive, a little supportive, somewhat supportive, moderately supportive, very supportive)

Q9: "After seeing this image, how supportive do you think someone would be of policies focused primarily on preparing or adapting to future climate change impacts?" (not at all supportive, a little supportive, somewhat supportive, moderately supportive, very supportive)

Q10: "How willing do you think others would be to share this image on social media or talk about it with their family and friends?" (not at all willing, a little willing, somewhat willing, very willing)

Climate Causes

Research Image 1. Used in discussion groups. © Ed Kashi

Research Image 2. Used in survey. Photo: Andreas Habich (CC BY-SA 3.0)

Research Image 3. Used in discussion groups and survey. © Greenpeace/ Daniel Beltrá

Research Image 4. Used in discussion groups and survey. © Lisa A/ Shutterstock

Research Image 5. Used in discussion groups. © EduWales/Alamy Stock Photo

Similar to the one used

Research Image 6. Used in survey. Photo: Markus Tacker (CC BY-ND 2.0). Country specific: Germany

Similar to the one used

Research Image 7. Used in survey. Photo: Highways England (CC BY 2.0). Country specific: UK

Similar to the one used

Research Image 8. Used in survey. Photo: Florian (CC BY-ND 2.0). Country specific: US

Similar to the one used

Research Image 9. Used in discussion groups and survey. Photo: Dru Oja Jay (CC BY 2.0)

Similar to the one used

Research Image 10. Used in discussion groups and survey. Photo: Zhart (CC BY-SA 3.0)

Table 1*: Images used in the research*

Images used in the research

Table 1 displays the images that were used in the survey, as well as the images from the discussion groups that are individually discussed in this report – due to licensing costs, not all images used in the discussion groups are presented. For the same reason, in several cases the actual image used is not shown; rather, a similar one is displayed (where a generic alternative sufficed).

Climate Impacts

Research Image 11. Used in discussion groups and survey. © Paula Bronstein

Research Image 12. Used in discussion groups and survey. Photo: U.S. Geological Survey (Public Domain)

Research Image 13. Used in discussion groups and survey. © [Unknown]

Research Image 14. Used in discussion groups and survey. © Francis R. Malasig/epa/Corbis

Research Image 15. Used in discussion groups and survey. © Matt Black. Country specific: UK

Research Image 16. Used in discussion groups. © Reuters

Research Image 17. Used in discussion groups. Photo: Asian Development Bank (CC BY-NC-ND 2.0)

Research Image 18. Used in discussion groups. Photo: Wendy North (CC BY-NC-ND 2.0)

Research Image 19. Used in survey. Photo: DVIDSHUB (CC BY 20). Country specific: US

Research Image 20. Used in survey. © Michaela Rehle/Reuters. Country specific: Germany

Research Image 21. Used in discussion groups. Photo: 350.org (CC BY-NC-SA 2.0). Country specific: US

Research Image 22. Used in discussion groups and survey. © Gary Braasch

Climate Solutions

Research Image 23. Used in discussion groups and survey. © Oliver Rudkin/10:10

Research Image 24. Used in discussion groups. © Transition Belsize

Research Image 25. Used in discussion groups and survey. Photo: Simon Williams (CC BY-NC-ND 2.0)

Research Image 26. Used in discussion groups and survey. Photo: United Nations Photo (CC BY-NC-ND 2.0). Country specific: US

Research Image 27. Used in discussion groups and survey. © Andrew Parsons/PA/Pool/Reuters/Corbis. Country specific: UK

Research Image 28. Used in survey. © Guido Bergmann/Bundesregierung-Pool. Country specific: Germany

Research Image 29. Used in discussion groups and survey. © Franck Robichon/European Pressphoto Agency

Research Image 30. Used in discussion groups and survey. © IDCOL

Research Image 31. Used in discussion groups and survey. © Jeremy Sutton-Hibbert

Table 1: *Images used in the research (continued)*

The seven key findings below represent the most important practical lessons for communicators drawn from the combined results of the discussion groups and the online survey. The content of climatevisuals.org is based on these findings.

1   Show 'real people' not staged photo-ops

What you need to know: *A person expressing an identifiable emotion is powerful. But our discussion groups favoured 'authentic' images over staged photographs, which they saw as gimmicky or even manipulative. Politicians – notoriously low on credibility and authenticity – attracted some of the lowest scores (in all three nations) in our survey.*

Research Image 11. *A single person is easier to identify with than a large group of people © Paula Bronstein*

The presence of people is important

It may be a 'photography truism', but our research confirmed that imagery containing people or animals tends to be more powerful, and that people respond more strongly to photos of one or two individuals (rather than many[14]).

In response to a photograph (Image 11) of a man in danger in a flood in Pakistan, one participant commented that it "...*shows how it [climate change] affects the people rather than the community... you don't need a lot of people to convey a message, I think just the one person by himself, it's really heartbreaking to look at that.*"

Research Image 1. *Eye contact captures the viewer's attention. © Ed Kashi*

Our discussion groups also responded strongly to photographs where the subject made direct eye contact. In one image (Image 1), a Nigerian man looks directly at the camera whilst gesturing to a fire behind him.

While few of the discussion group participants understood what was happening in the photo, many wanted to know and responded to the distress in his face. One commented that *"there's something in his face like he's scared for his life, so whether it's war, fire, a bomb, whatever, that reaction is hard to fake."*

Where people were not present, some participants even requested their presence, with one remarking: *"I want scientists as well and guys in white coats, dead serious experts in their field staring you in the face, going 'get it together man'. That's the sort of thing that motivates me."*

© Alanah Torralba / Greenpeace

A clearly distressed person, in a scene of absolute destruction is likely to provoke strong negative emotions. Coupling images like this with constructive solutions-focused imagery of messages is one way to ensure that viewers' attention and emotions are directed in a pro-active way. Related research on the use of similar images by aid/development agencies recommends that they should be empowering to the individual photographed, in a way that promotes their agency rather than diminishes it (e.g. by including the individual's own words as part of the image).

© DFID

A devastating flood, told through the experience of one man and the water levels that submerged his house. Our research found that connecting a personal story with large-scale destruction is likely to resonate with viewers.
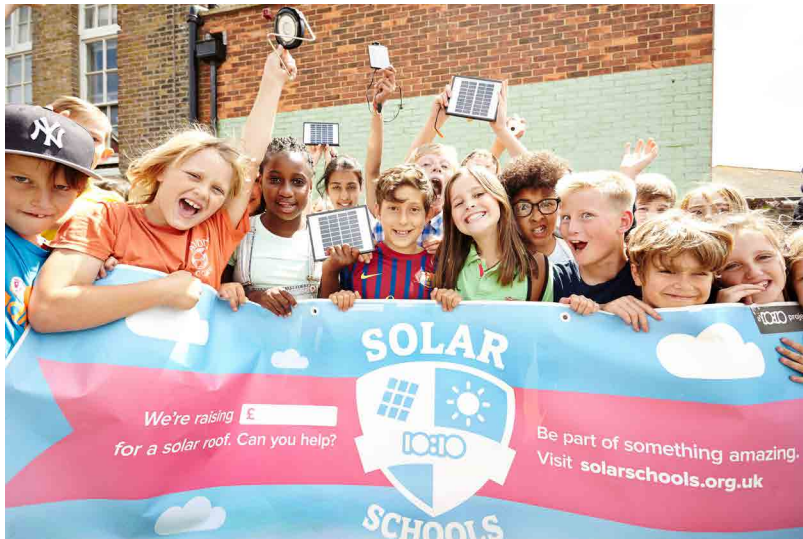
Research Image 23. Images like these are likely to produce a 'feel-good' factor, but because they are 'staged' rather than authentic, their impact may not reach much beyond this. © Oliver Rudkin/10:10

Research Image 24. A clearly faked or at least very uncommon situation that might spur viewers to laugh rather than act. © Transition Belsize

Authenticity matters

By far the strongest finding from our discussion groups was that participants disliked staged photos and favoured images that seemed 'authentic' and therefore more convincing and compelling. So while the presence of people is important, it is crucial to consider how 'authentic' the subjects of the image are.

For example, a photograph of children posing with and celebrating their school's solar panels (Image 23) – a familiar image in climate change 'solutions' campaigning – was effective in producing a 'feel-good' factor, and produced the most positive emotional response of all images in the online survey. But despite this, it was also viewed as "gimmicky" and "staged" by our discussion groups, with one participant suggesting that it would be improved if instead of dancing around a solar panel, the children were *"photographed in front of their school, with solar panels on the roof."*

Similarly, a clearly posed image (Image 24) of a man installing draught excluders while watched by a smiling family prompted ridicule: *"I think that family needs to get out a little more."* [general laughter], *"They're a little too excited about the draught excluding."*

Similar to the one used

Research Image 25. *Authentic images depicting people doing things related to climate change evoke positive emotions and fare well across the political spectrum. Photo: Simon Williams (CC BY NC-ND 2.0)*

Posed photos were generally seen as hypocritical; the people in the image were perceived as taking part in it for the sake of it, after which they would shortly return to their normal (high-carbon) lives. Participants also made a link to advertising – and as a result were less convinced by the images: *"that's a problem for me, I don't want to feel like I'm being sold the idea of something, if it has to be sold to me then I don't need it."*

In contrast, more natural photos showing low-carbon lifestyles 'in action' were received favourably. An image of a man rolling out roof insulation (Image 25) was preferred in the discussion groups because *"it looks like real work is going on"* – and in the survey, this somewhat mundane but 'real' image also produced positive emotional reactions, and was fairly well-received across the political spectrum (see Section 7).

© 10:10

➜ climatevisuals.org

The image is unusual but easy to understand, and is likely to produce a positive emotional response. Rather than a staged 'celebration' of solar panels, this young person is actively interacting with a positive climate solution.

Similar to the one used
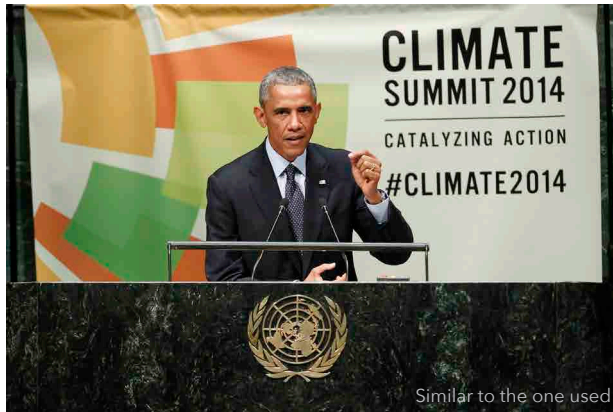
Do you need to show politicians? Then show them doing something relevant 'in the real world', rather than posing for a photo opportunity.

Research Image 26 (upper): United Nations Photo (CC BY-NC-ND 2.0)
Research Image 27 (middle): © Andrew Parsons/PA/Pool/Reuters/Corbis
Research Image 28 (lower): © Guido Bergmann/ Bundesregierung-Pool via Getty Images

Credibility matters

Closely linked to 'authenticity' is 'credibility'. A consistent finding across both studies was that politicians 'posing' for photos to illustrate climate change were universally disliked. The two lowest-ranked photos in our survey (in terms of people's motivation to change their own behaviour) were the images of President Barack Obama (Image 26) and Prime Minister David Cameron (Image 27) shown to US and UK participants respectively (Chancellor Angela Merkel, Image 28, was slightly more favourably rated).

People's judgments about individual politicians are driven by the politician in question and the match between their political views and those of the participants. But comments in the discussion groups showed that the key issues were their lack of credibility, and an underlying sense that politicians "abuse" the topic to their own ends (making the science seem less trustworthy). More 'day-to-day' photos were sometimes received more favourably. The photo of Angela Merkel looking out of an aircraft window at some offshore wind turbines (Image 28) seemed a little less staged, because *"I think she is having an honest moment of 'oh look at that, that is what I have done. Nice one'... At least she's impressed. I like that."* And some fairly mundane images of negotiators at a climate change summit were also received quite favourably by some in our discussion groups, because they showed a political response to climate change rather than a posed photograph.

Many campaigns and articles focus on climate policies, and so it is unrealistic to expect that photos should avoid politicians altogether. However if an image is designed to send a positive signal the politician should be as authentic and credible as possible – doing something useful rather than posing for a photo-opportunity – and the widespread distrust of mainstream politicians should not be underestimated. As one German discussion group participant put it, all the images of politicians *"make me almost vomit."*

2 Tell new stories

What you need to know: *Images that participants could quickly and easily understand – such as smokestacks, deforestation, and polar bears on melting ice – tended to be positively rated in our online survey (which captured rapid responses to images, rather than deeper debate). Familiar, 'classic' images may be especially useful for audiences with limited knowledge or interest in climate change, but they also prompted cynicism and fatigue in our discussion groups. They are effective ways of communicating to an audience that 'this story is about climate change'. But is it a story they want to hear? Less familiar (and more thought-provoking) images can help tell a new story about climate change, and remake the visual representation of climate change in the public mind.*

Similar to the one used

Similar to the one used

Similar to the one used

'Classic' climate images are easily recognised and were rated highly in our survey when a rapid response was required. But in our discussion groups, it was clear that people were fatigued by these cliched photographs.

**Research Image 2** *(upper left): Photo: Andreas Habich (CC BY-SA 3.0)*
Research Image 3 *(upper right): © Greenpeace/ Daniel Beltrá*
Research Image 12 *(right): Photo: U.S. Geological Survey*

As Figure 1 (p. 21) shows, some of the most familiar climate imagery (polar bears, smokestacks and deforestation) received high ratings in our survey. These 'classic' climate images were the most easily understood, and the extent to which people understood an image was a major influence on their other judgements – whether they would share it, whether it motivated them to change their own behaviour, and whether it promoted support for policies to tackle climate change.

Responses to the question "To what extent do you feel as if you have an understanding of what this image is trying to convey?"
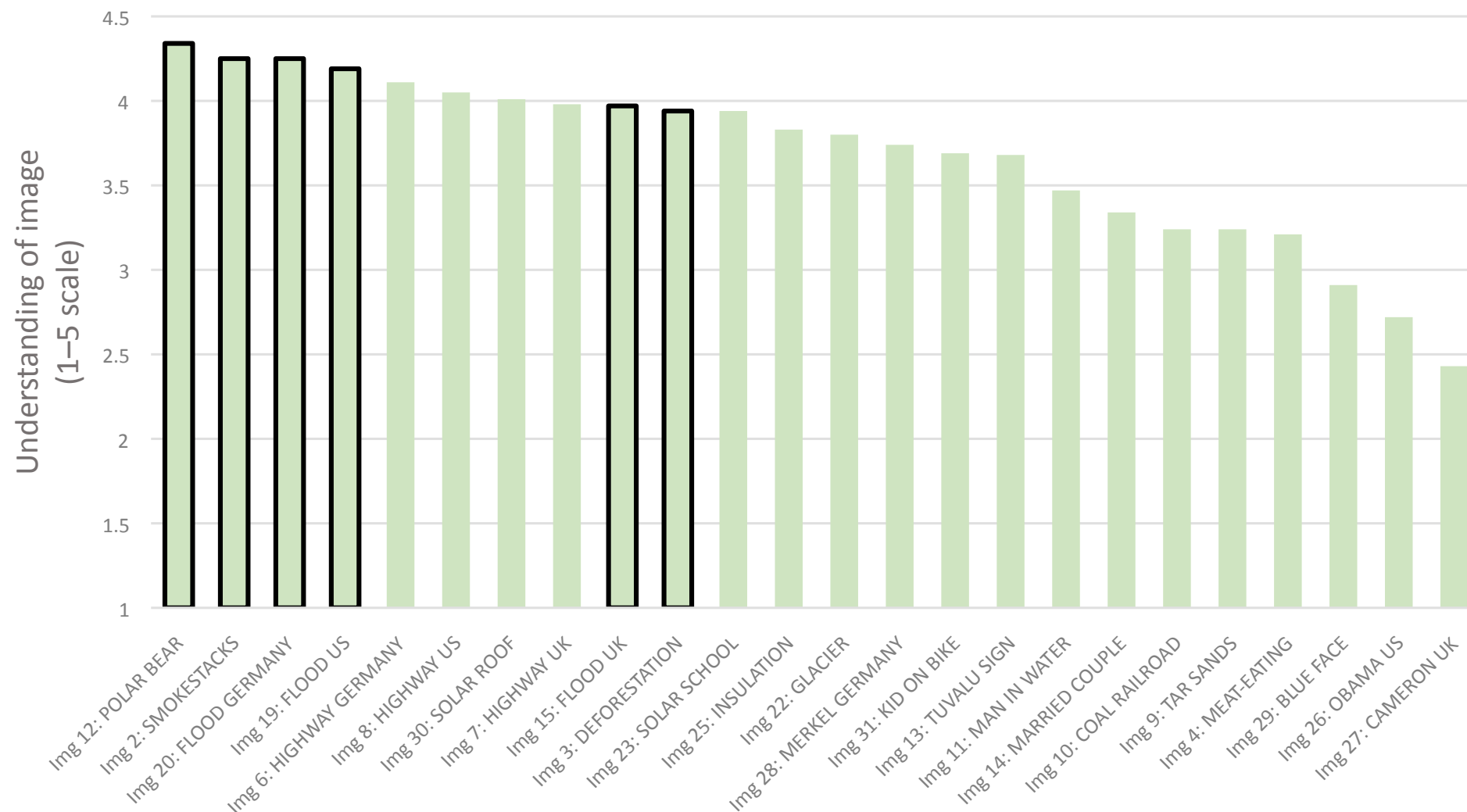
Fig 1: *Image-by-image comparison of responses to Q1. Highlighted bars are referenced in the preceding text. Response scale ranged from 1 (Not at all) to 5 (Completely).*

This member of staff at a brewery is not a 'typical environmentalist' as portrayed in many images of climate change demonstrations and communal celebrations of new energy technologies. Our discussion group findings suggest that 'real people doing real work' is something that is likely to be shared widely as a positive example of a climate solution, across the political spectrum.

Familiar, 'classic' images may be especially useful for audiences with limited knowledge or interest in climate change, but they do not help to widen or deepen public engagement with the broader issue. They are effective ways of communicating to an audience that 'this story is about climate change'. But is it a story they want to hear?

No-one in any of our discussion groups mentioned climate change as a concern spontaneously – instead focusing on refugees, poverty and the cost of housing as the major issues of concern. When climate change was raised by the facilitator, most participants acknowledged it as an important issue, but the universal view was that climate change was not a central issue in their lives or in society.

When asked (before being shown any photographs) what image first came to mind when they thought of climate change, participants in our discussion groups readily made a series of associations – melting ice, a burning globe, fire, pollution, wind turbines, coal-fired power stations and of course polar bears. And the findings of our survey were clear: these sorts of images were well-understood, and therefore more likely to be positively engaged with as a 'symbol' of climate change.

However, these 'classic' climate images also prompted a significant amount of cynicism. One participant (in a comment characteristic of the London and Berlin groups) said *"...the polar bear...makes me angry for some reason. Not because I'm like 'oh no that's a pressing issue', but like 'oh this is so annoying' I don't want to see them again. Like when you see a bad ad and you're like, oh leave me alone with that crap."*

A minority of participants were moved by images of polar bears. But even for these participants the effect seemed to be limited to the plight of the polar bear, rather than the climate issue as a whole. Some participants commented that they were moved by its plight and might be moved to respond (tellingly, though, specifically for the polar bear rather than the wider climate issue): *"I feel really sorry for the polar bears, I might donate for the polar bear thing, but not for global warming."*
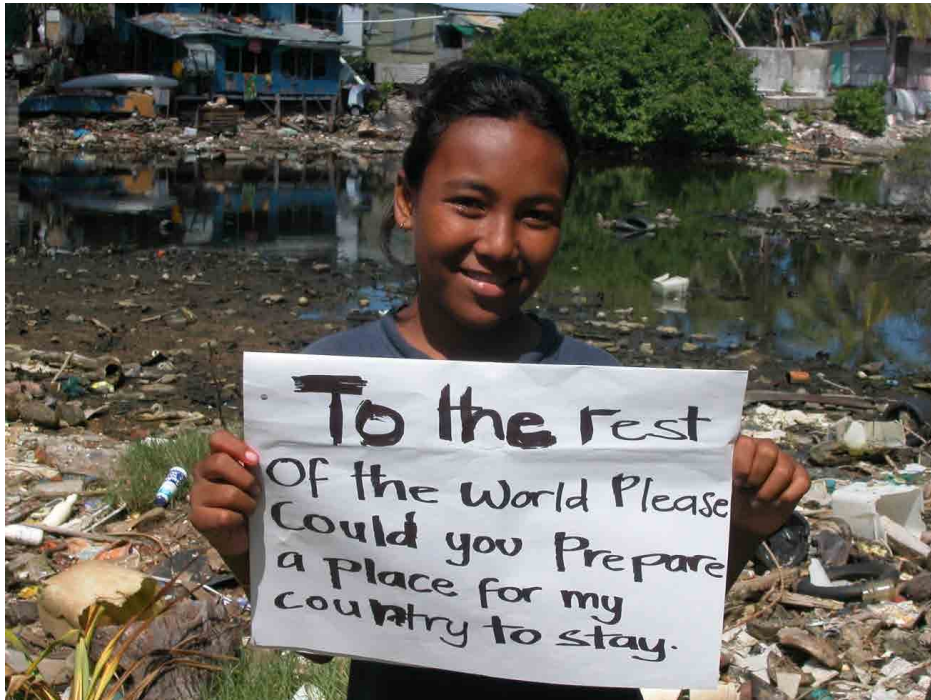
Research Image 13: *Images telling multi-layered stories are effective.*
© [Unknown]

Others focused on the lessening impact of images that have been seen hundreds of times:

"It feels like, well I know it's been going on since I was in school, the late 80s, you see them in geography class, deforestation…"

"[These are] reproducing stereotypes that are already in my mind, also not really affecting me."

While 'classic' climate images may be helpful for quickly and accurately 'symbolising' the issue of climate change for people who are unfamiliar with it, there is clearly a self-fulfilling risk in re-using the same imagery over and over again: it acts to 'close down' the climate story, instead of opening it up to new and diverse interpretations.

In our discussion groups, participants read stories into the images they viewed – and judged them according to the narratives they produced. Images that produced rich stories, with several layers of information that didn't conflict with each other and explicitly pointed to climate change, tended to prompt more powerful reactions.

For example, an image of a young person in Tuvalu (Image 13) holding a sign asking for help from the rest of the world was favourably received across the discussion groups. Participants used the child's setting to tell a story about where she lived. Although the 'child asking for help' image-concept has been challenged by analyses of aid and development agencies' approaches, the gentle humour of the message and the child's facial expression stood out in contrast to the seriousness of the situation. Participants largely judged it as authentic – they believed that the young person pictured was genuinely in danger, and therefore accepted the message of the sign.

Another way in which visual communication can get beyond the 'classic' climate imagery is to use humour or subversion. In our discussion groups, participants were sensitive to (and generally appreciative of) undercurrents of humour or contrast in the images (for example the couple in their wedding outfits in Image 14, or the name of the town – 'Ditherington' – in Image 15, suggesting the irony of 'dithering' on climate change).

Using humour/contrast and irony are ways of telling new climate stories.

Research Image 14 *(upper): © Francis R. Malasig/epa/Corbis*
Research Image 15 *(lower): © Matt Black*

3 Show climate causes at scale

What you need to know: *We found that people do not necessarily understand the links between climate change and their daily lives. Individual 'causes' of climate change (such as meat-eating) may not be recognised as such, and if they are, may provoke defensive reactions. If communicating the links between 'problematic' behaviours and climate change, it is best to show these behaviours at scale – e.g. a congested highway, rather than a single driver.*

Don't assume that your audience sees the same links as you.

Research Image 4 *(upper): © Lisa A/ Shutterstock*
Research Image 5 *(lower): © EduWales/ Alamy Stock Photo*

Our discussion groups were shown several images of daily life that could be linked to climate change, e.g. a photo of a man eating a large plate of meat (Image 4) and a photo of an English family gathered around a large car (Image 5). The images prompted a fair bit of discussion, but most of the participants rejected the idea that images of their normal lives could or should be associated with climate change. Many participants were confused by the meat-eating image and asked what it had to do with climate change. When the connections were explained, one participant remarked *"people don't really understand it all, all the connections."* In the online survey, it was poorly understood and received weak ratings in general.

Many people don't understand how aspects of their normal lives link to climate change, and may be resistant to the feelings the ideas prompt if the links are made. In response to the image of a family gathered around a car (Image 5), one German participant said *"[this] is not climate change because that's normal to drive a car. We can't stop that. It's normal."*

Similar to the one used

Similar to the one used

Our findings suggest that images of climate causes are more easily understood and sympathised with when they show problematic behaviour at scale rather than on the individual level.

Research Image 6 *(upper): Photo: Markus Tacker (CC BY-ND 2.0)*
Research Image 7 *(middle): Photo: Highways England (CC BY 2.0)*
Research Image 8 *(lower): Photo: Florian (CC BY-ND 2.0)*

Similar to the one used

Clearly, though, some campaigns are aimed at highlighting the links between individual behaviours and climate change - and our research suggests a way forward. While people do not necessarily connect one family and their car to climate change, our survey found that a busy, congested road was more readily understood (as a cause of climate change) (Images 6, 7 and 8). The problematic behaviour is shown at scale (i.e. many different individuals at once) rather than via one singled-out individual. People view congested highways negatively – both in terms of the environmental impact and the personal inconvenience of this mode of travel.

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Many people cannot avoid driving, and our research found that many people are resistant to images that highlight the role of individual behaviours in causing climate change. But congested, dirty highways are universally unpopular, and our research found that images of congested highways were particularly effective in engaging people who had lower levels of empathy for others – perhaps because they could easily picture themselves in this situation.
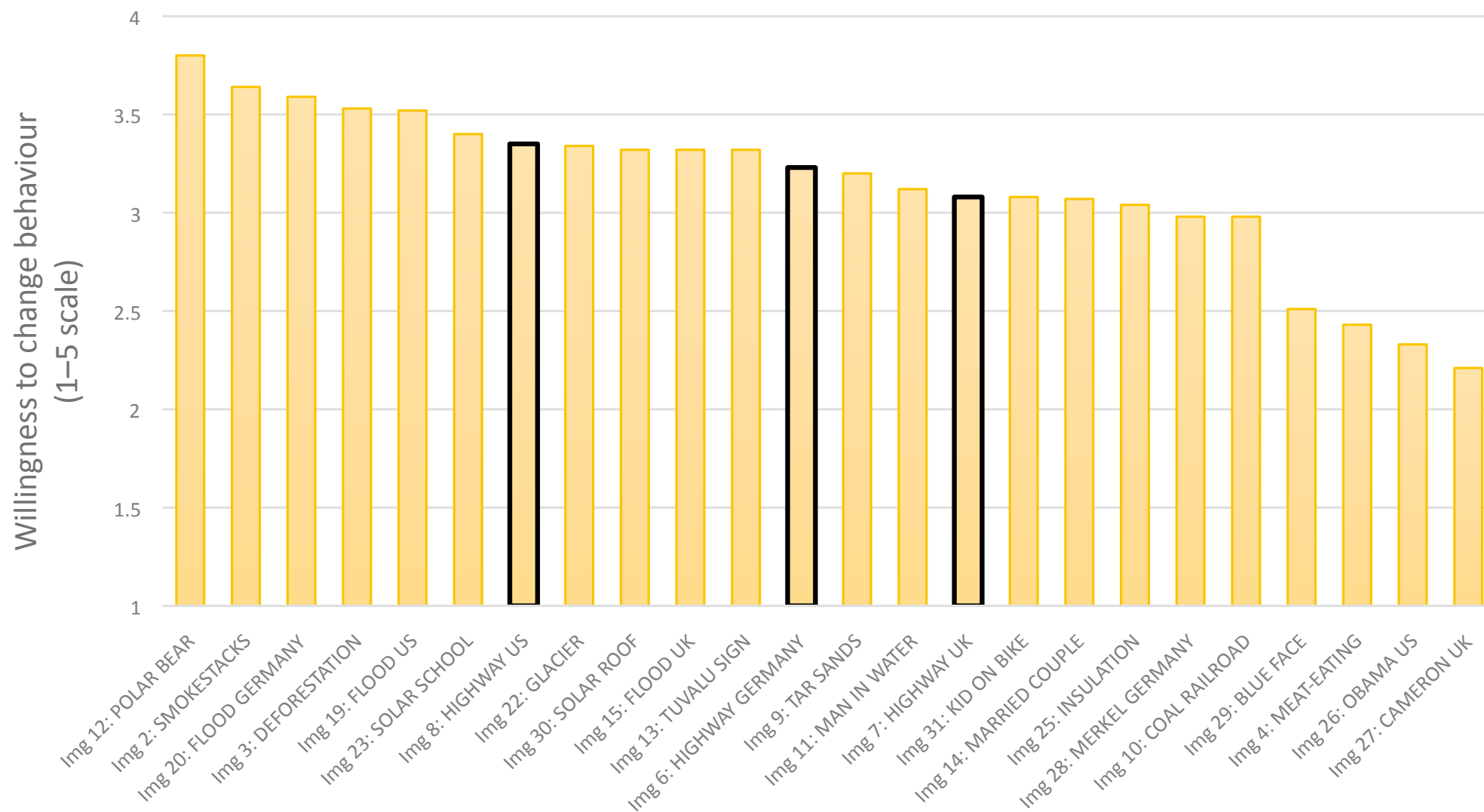
As Figure 2 (p. 28) shows, the images of highways produced an above average desire in our survey participants to make changes in their own behaviour in response to climate change. And as we show in Section 7, they also produced relatively positive ratings among those sceptical of climate change and on the right of the political spectrum.

Fig 2: *Image-by-image comparison of responses to Q5. Response scale from 'Not at all' (1) to 'Very much' (5).*

4   Climate impacts are emotionally powerful

What you need to know: *Survey participants in all three nations were moved more by climate impacts – e.g. floods, and the destruction wrought by extreme weather – than by 'causes' or 'solutions'. Images of climate impacts can prompt a desire to respond, but because they are emotionally powerful, they can also be overwhelming. Coupling images of climate impacts with a concrete behavioural 'action' for people to take can help overcome this.*

Research Image 16: *Images of impacts are powerful, but can provoke a sense of helplessness. © Reuters*

Previous research on images of climate impacts has provided mixed messages: on the one hand, they are clearly impactful and attention-grabbing, and prompt strong emotional responses[15], but on the other hand, they have been found to produce a 'helpless hopeless' feeling in the viewer – not what NGOs calling for action on climate change are aiming for.[16] This tension was evident in our discussion groups. In response to Image 16, one person commented: *"I feel, I don't know... I feel like emotionally abused. I don't want to think about that and it's just like, why are you showing that right now? I don't see the point why it's a picture for climate change... It causes emotions but not nice ones. I just feel like, I want to go away, I don't want to be confronted with that."*

Others, however, were prompted to respond to the very same image, and searched for a way to do so: *"...you could imagine, I'm going to donate, or you can go there, fly there, give money, or say come to me, come to my house, something you can do something."*

Similar to the one used

Research Image 17: Photos showing climate change impacts should be coupled with text or images showing how people can respond to the emotions the images provoke. Photo: Asian Development Bank (CC BY-NC-ND 2.0)

In fact, reflecting the tension found in previous research on images of climate impacts, participants in our discussion groups frequently focused on the 'but what can I do?' question. An image of a street destroyed by a typhoon (Image 17) prompted a couple of participants to explore what they could do in response – go there and volunteer, help clean up, or donate to organisations that "do that kind of thing". In contrast, the photo of the man caught in the flood in Pakistan (Image 11), which participants on the whole responded to powerfully, prompted several people to comment that they couldn't help him, because he would already have drowned (or been saved) by the time they got there.

It was clear, however, that many struggled to identify what they could personally do, reinforcing the importance of coupling emotionally intense 'impacts' images with practical guidance on 'actions' that can be taken in response to this heightened emotional arousal.[17] The findings from our survey support this: when asked whether they would endorse particular actions (e.g. supporting government policy, sharing the image, or changing their own behaviour), the impacts images were rated the highest as a group (see Figure 3, p. 31). Some individual images in other groups also scored highly. But it is crucial that these concrete actions are specified and provided – without them, the visual power of climate impacts may be overwhelming.

Averaged responses to images of causes, impacts, and solutions
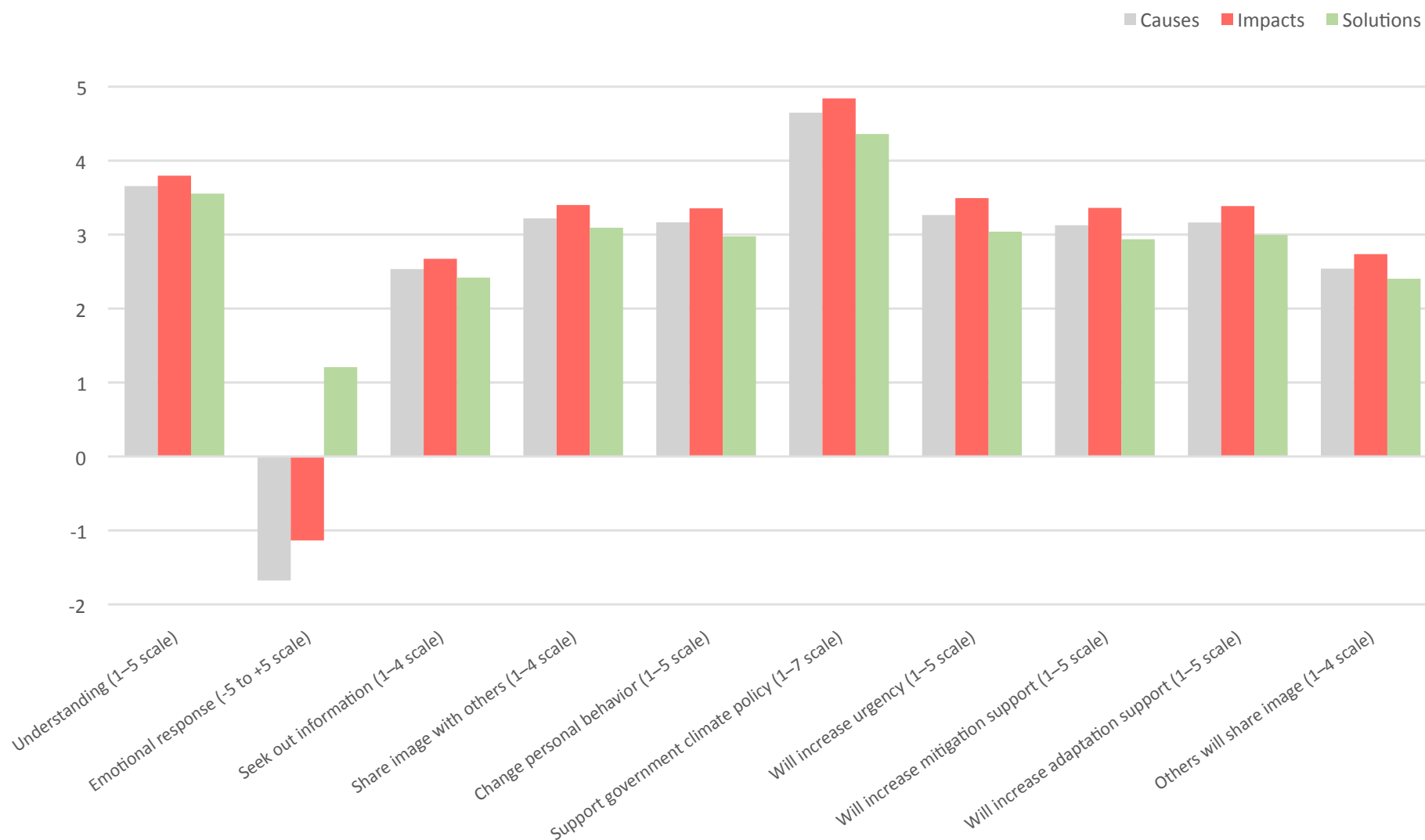
Fig 3: *Mean responses to all ten questions asked about the images in the survey, compared across image categories. Please note the different scales used for each item.*

5 Show local (but serious) climate impacts

What you need to know: *When images of localised climate impacts show an individual person or group of people, with identifiable emotions, they are likely to be most powerful. But there is a balance to be struck (as in verbal and written communication) between localising climate change (so that people realise the issue is relevant to them) and trivialising the issue (by not making clear enough links to the bigger picture).*

Images of local impacts of extreme weather events can reduce the 'psychological distance' of climate change, especially if the depicted impacts are non-trivial.

Research Image 19 (upper): Photo: DVIDSHUB (CC BY 2.0)
Research Image 20 (lower): © Michaela Rehle/Reuters

In both the discussion groups and the online survey, we showed participants images of 'localised' potential climate impacts – flooding that was clearly occurring in either the UK (Image 18), the US, or Germany (Images 19 and 20). Images showing localised climate impacts were a powerful way of connecting with people. Seeing recognisable places experiencing severe flooding triggered a strong, negative emotional response, and these images produced some of the highest support for government policies to tackle climate change, and desire among people to change their own behaviour.

Several participants in our discussion groups said the images made climate change feel more immediate, and worrying:

"When you think 'oh, it will happen in another continent', you're like oh ok. But when you would have now one month a lot of flooding problems, then you're like 'oh yah, what would happen when it would happen in my own home'."

"I think [Image 21] is good, but personally for me [Image 18] has got more of an effect, because it's local, because you can actually see that something's happened."

Similar to the one used

However, as in verbal and written communication, there is a balance to be struck between localising climate change and trivialising the issue. While 'bringing climate change home' has some definite advantages, what counts as a 'local' impact and whether this motivates or undermines concern about the wider climate issue is not straightforward.[18] Some participants identified images of flooding in Germany or the UK as less serious than in other countries, partly because they assumed the infrastructure of Western countries would readily recover.

"A flood in this country doesn't have the same emotional effect as a flood in other countries, you're not massively inconvenienced in that picture." [looking at Image 18, depicting a UK citizen flooded to knee level]

"And that – I know that guy's fine – if his house got flooded, he'll be fine, he'll get money from insurance or whatever because that's the society that we're living in."

Local vs. distant images of climate change (for European participants)

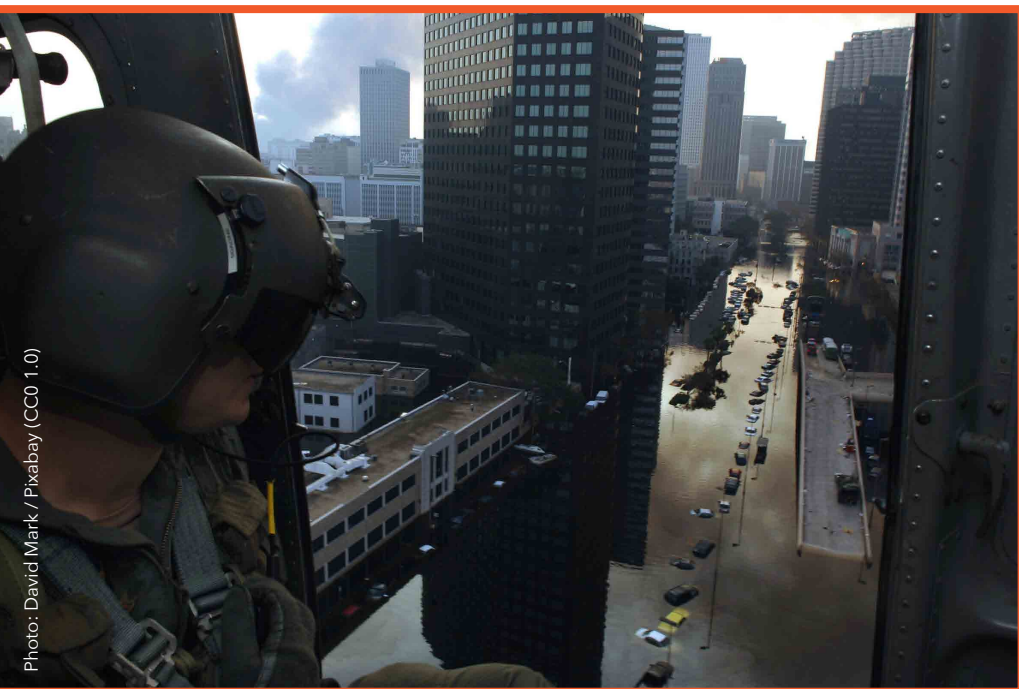**Research Image 18** *(upper): Photo: Wendy North (CC BY-NC-ND 2.0)*
Research Image 21 *(lower): Photo: 350.org (CC BY-NC-SA 2.0)*

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For people in parts of the US, Hurricane Katrina brought climate change right to their doorsteps. Our research found that 'local' flooding images were powerful, in the UK, Germany & the US – and can be a tool to reach beyond the 'usual suspects' (i.e. to those on the right of the political spectrum).

The balance between showing something 'local' and nurturing concern about the wider issues of climate impacts is delicate. Some research has shown how localised messages about adaptation are an effective way of reaching individuals on the right of the political spectrum, but other studies point to the risks of this kind of approach: over-emphasising the local aspects of climate change may reduce people's level of concern about the wider issue.[19]

This delicate balance was reflected in our findings. Although participants on the political right (in the UK in particular) were likely to say they would share an image of localised flooding and be motivated to change their own behaviour in response to it (see Figure 5), the same image produced quite a flat emotional reaction among this group (see Figure 4, p. 35).

Influence of ideology on emotional response to images
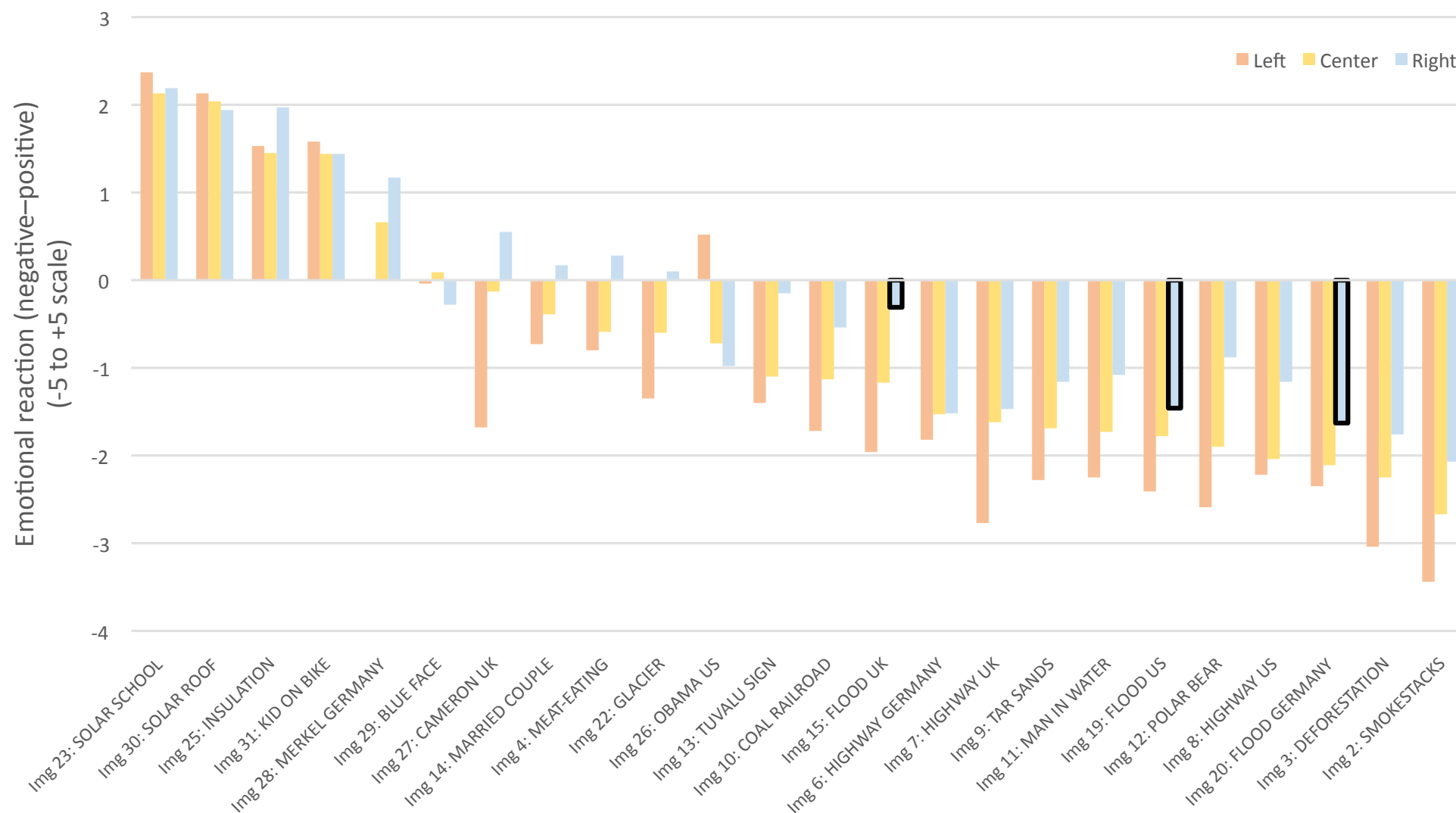
Fig 4: *"On a scale of -5 (really negative) to +5 (really positive), how does this image make you feel?" Image-by-image responses to Q2, split according to ideology. Highlighted bars are images referenced in the preceding text.*

6 Be very careful with protest imagery

What you need to know: *Images depicting protests (or protesters) attracted widespread cynicism and some of the lowest ratings in our survey. In our discussion groups, images of (what people described as) 'typical environmentalists' only really resonated with the small number of people who already considered themselves as activists and campaigners. Most people do not feel an affinity with climate change protesters, so images of protests may reinforce the idea that climate change is for 'them' rather than 'us'. Protest images involving people directly affected by climate impacts were seen as more authentic and therefore more compelling.*

Research Image 29: *Most people have difficulties identifying with activists in protest images like this. © Franck Robichon/European Pressphoto Agency*

Excluding the images of politicians, the image of a protester with his face painted blue (Image 29) was the least well-understood, and one of the lowest scoring images across the board in the online survey. It was also the most negatively received of all the photographs tested in our discussion groups. The individual was accused of being a "frat guy" or alternatively someone who *"…probably used the same face paint to paint himself at Glastonbury this weekend, and rubbed out climate and put Kanye West."* In our discussion groups, where a wider range of protest imagery was discussed, they attracted widespread cynicism. Images of environmental protestors often prompted accusations of hypocrisy. In Germany, one participant objected to an image of a child at a climate change protest. The child, who was holding a banner in the shape of a foam finger, was described as *"…a classic example of jumping on the bandwagon. She wants you to take the threat seriously, but these balloons, and this foam finger, are the worst for the environment. It's so outrageous, a lot of the time these protestors that are protesting climate change are doing things like this."*

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Protest is an important part of how climate change has developed in the public mind. But when showing images of protest, ensure that the viewer can easily identify the protesters as 'authentic' and genuinely pressing for change, rather than potentially having a fun day out. Our research pointed strongly to images of 'typical' environmentalists (from white. western backgrounds) with face paint and banners as a 'turn-off' for people who are not already actively interested in the climate issue.

Overall, participants seemed tired of generic protest images. One picture prompted the comment *"For me, it feels like I've seen that image a 1000 times for pretty much every cause there is in the world."* On the other hand, specific campaign related jargon – like 'divest' or 'climate justice' – meant little to the group members and mostly prompted confusion.

So why do most people feel such antagonism for the standard iconography of climate change demonstrations? It is not straightforwardly attributable to scepticism about climate change. Analysis of the 'blue face' image revealed that the low ratings it attracted were not being driven by climate scepticism. People with 'high' and 'low' levels of scepticism were just as unlikely to feel motivated by the image. So it was not the case that this protest image was polarising: not even those concerned about climate change were particularly favourable towards it.

In our discussion groups, no-one rejected the idea of human-induced climate change, but concerns appeared to be grounded in a dislike of the way the issue was discussed and communicated. One participant said climate change made him think of "fascism"; another told the story of when he got "yelled at at a dinner party" for expressing doubts about it. Many of the participants expressed interest in and sympathy for social justice issues, and some concern about climate change. Most were not, however, sympathetic to environmentalists or images of environmental protest. When asked to say how they pictured environmental campaigners, one London group member described *"...someone who chains themselves to a fracking banner... someone that marches and doesn't really want to communicate the full facts."* Another categorised marchers as *"either hipsters trying to be cool or... lunatic extremists."*

7 Understand your audience

What you need to know: *Unsurprisingly, levels of concern/scepticism about climate change determined how people reacted to the images we tested. But other differences emerged too – images of 'distant' climate impacts produced much flatter emotional responses among those on the political right. Images depicting 'solutions' to climate change generated mostly positive emotions – for those on the political right, as well as those on the left.*


Similar to the one used

Research Image 9. *An image of Tar Sands received higher ratings from individuals on the right of the political spectrum. Photo: Dru Oja Jay (CC BY 2.0)*

A substantial body of evidence has shown that differences in views about climate change are driven by people's political beliefs and 'worldviews'.[20] As a general rule, scepticism about climate change is higher on the right of the political spectrum, and among people who hold 'individualistic' views and support 'free-market' economic principles. And in the same way that different language is more or less effective for engaging audiences with different political values[21], our research suggests that some images are also differentially engaging across the political spectrum.

In general, images that received high-scores overall were popular across the political spectrum. For example, the 'smokestacks' image (Image 2, p. 20) scored highly among left and right-leaning survey participants: people on the right of the political spectrum found it a compelling image in increasing their support for climate policies. However, while it attracted positive ratings from those on the right, support for climate policies (after viewing the smokestack image) was still higher among left-leaning individuals.

But there were some images for which this relationship was reversed: that is, where the image attracted higher ratings on the right than on the left of the political spectrum. As Figure 5 (p. 39) shows, people on the right were more likely than those on the left to say they were motivated to change their own personal behaviour when they viewed certain images. This was, for example, the case for the following relatively high-scoring images: highways in Germany and the US (Images 6 and 8, p. 26), flooding in the UK (Image 7, p. 26), tar sands (Image 9) and loft insulation (Image 25, p. 18).

Influence of ideology on motivation to change behaviour after seeing images
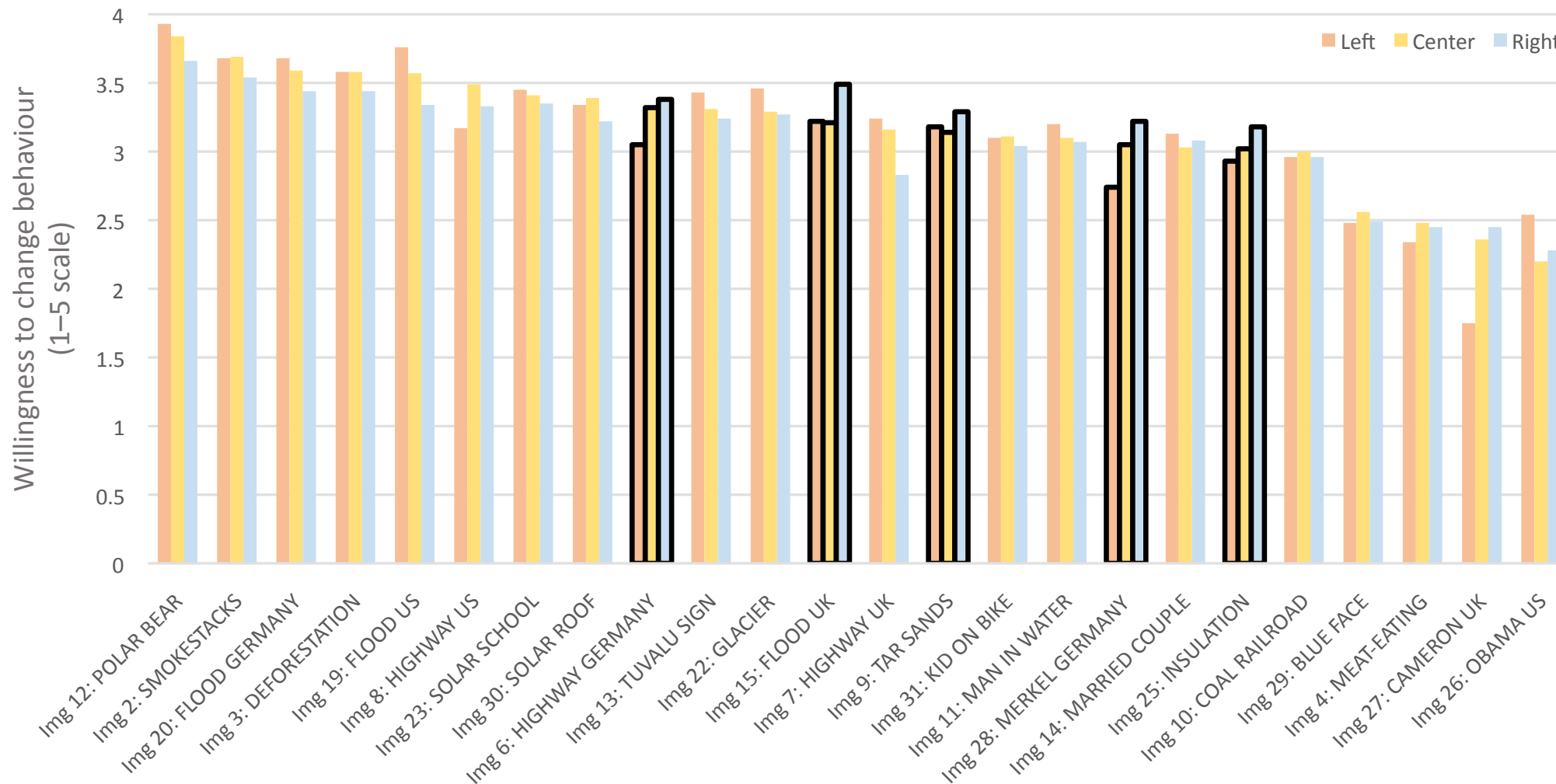
Fig 5: *"Does the image motivate you to want to make changes to your own behaviour?" An image-by-image comparison of responses to Q5, split according to ideology. Response scale from 'Not at all' (1) to 'Very much' (5). Highlighted bars are referenced in the preceding text.*

Research Image 30: Some images have more or less universal appeal – especially if they have a few people in them, doing stuff. © IDCOL

While we cannot make strong conclusions about why these images were relatively more popular among right-leaning participants, it is possible that the 'localised' flooding was more motivating for these individuals because it did not trigger the 'global justice' frame that many climate campaigns depend on (but which is not generally part of a rightwing perspective on the world).

Similarly, home insulation is a practical and 'sensible' response to climate change, that is grounded in notions of 'efficiency' and 'productivity'. These are ideas that fit easily with a conservative mindset – and therefore may be more engaging from a rightwing perspective. In general, images of climate 'solutions' such as solar panels (Image 30) and loft insulation (Image 25, p. 18) were rated as highly by those on the political right (in terms of producing a positive emotional feeling) as those on the political left.

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A man working hard on what looks like an 'everyday' industrial farm is in fact clearing up at a 'Bioenergy Village'. Images like this – showing 'real people doing real work' help to generate a sense of climate solutions being integrated into daily life, and are likely to resonate well on the right as well as the left of the political spectrum.

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