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What role can ‘public switching’ play in researching public perceptions of controversial issues?

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ABSTRACT

This short article reflects on ‘public switching’ as a methodology for research on public perspectives on potential responses to the climate crisis. There have been recent calls for early public engagement with potentially controversial science and technology. Such ‘upstream’ engagement is often conducted by those close to the science, presenting challenges associated with informing without advocating and deferral to scientists on non-scientific matters. The method we propose – public switching – involves engaging a public (here, young people) with emerging technologies through social science priming, independent research and the creation of questions which are presented to scientists and policymakers working in the field. We argue that this approach provides a mechanism for the public to connect with science and policy and to be heard, with question creation depolarising and deepening discussion. We reflect on methods of public switching, question creation and analysis, and discuss the limits and limitations of this approach.

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Introduction

Research into public perspectives on emerging science and technology is used to help governments, scientists, businesses and others to make informed decisions. However, there are no direct ways to access true beliefs of members of the public, and perceptions measured at one point in time may not necessarily represent views at other times and under different conditions (Dowler et al., 2006). In the context of research on climate change generally, and climate interventions specifically, participants’ perspectives are commonly surveyed, with positions associated with various demographic characteristics (Carlisle et al., 2020; Mahajan et al., 2019). Whilst this allows the perspectives of many people to be sought, position-taking is problematic for new technologies for four main reasons. First, public awareness tends to be low (Scheer & Renn, 2014). Secondly, attitudes are unstable (Braun et al., 2018; Pidgeon et al., 2008). Third, framing matters, with analogies to nature being associated with more positive perceptions (Corner & Pidgeon, 2015). Finally, context matters, with more positive attitudes towards climate interventions found where they are not compared with different mitigation strategies (Scheer & Renn, 2014).

There is growing interest in the use of deliberative methods to reach decisions on issues involving value judgements as diverse as inequalities (Burchardt, 2014) and meeting net zero targets (Cox et al., 2022), as well as on climate interventions (Pidgeon et al., 2013). Deliberative approaches

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are based on an understanding of democracy as a process of formation and transformation of preferences through communication between informed equals holding contrasting perspectives on an issue (Burchardt, 2014). However, there is a challenge associated with public engagement with climate interventions in terms of (i) how to deliberate climate interventions without ‘implying a commitment to its reality as a policy option’ (Bellamy & Lezaun, 2017, p. 402), and (ii) how to avoid deferral to scientific authority – even on non-scientific questions – during deliberative approaches (Corner & Pidgeon, 2015). It is common for scientists (or those close to science) to be involved in deliberative processes on the theme of climate interventions, but this can stifle or limit discussion if research participants feel uncomfortable challenging different perspectives, particularly when expressed by individuals perceived as more knowledgeable. Asking participants to take a position can also be problematic as they might feel pressure to defend their stated positions in subsequent discussions, which may lead to entrenchment and polarisation.

In response to these challenges, we hypothesised that a method of involving scientists ‘downstream’ of public engagement so that the traditional role of audience or public was switched, could address some of these challenges with public engagement on emerging climate intervention proposals. Question creation (i.e. where dialogue produces questions, rather than positions) was identified as a way in which space could be created for diverse opinions to be held, for disagreement to be encouraged and explored in a productive way that avoided entrenchment and polarisation. In this article, we discuss the contribution that public switching through question creation can make to qualitative research on complex and emerging matters.

Methodology

The democratisation of research has the potential to identify priorities that benefit all of society now and into the future. Edwards and Brannelly (2017) have identified inclusive, co-production, and feminist ethics of care as approaches to democratising research. These approaches alter who produces and benefits from knowledge. The public switching method described here (where scientists and policy-makers are invited to engage with a public – here, young people’s – questions on proposed technologies) draws on these approaches through the involvement of diverse young people and attention to power relationships and responsibilities in the research process.

Question creation was integral to the public switching method. Typically, questions are used to guide the direction of research and prompt responses from participants. Methods of co-production have created a space for participants to be involved in creating and shaping research questions (Bell & Pahl, 2018) but questions are less frequently encountered as the product of dialogue. A question can be defined in terms of function as ‘an information-seeking act’ (Watson, 2021, p. 285), or, in the context of the arts, ‘an intrusion into a process . . . a temporal suspension of what is also acknowledged as an ongoing event’ (Bay-Cheng, 2017, p. 41). This recognises the context of question creation and highlights the potential of questions not just to request information but to have an effect in the world. Here, questions were produced as a result of independent research, analysis and reflective peer dialogue by young people participating in a project to rethink public dialogue. The questions created were then put to professionals (scientists and policymakers) working in the field concerned.

Procedure

First, ethical approval was granted by the relevant institutional ethics committee, and voluntary informed consent obtained from participants. It was made explicit to participants at the outset that none of the research team was involved in research on climate interventions in order to help reduce power distance and open space for honest dialogue.

Second, a series of 4 online workshops (each lasting 90 min) were held. A total of 63 young people (aged 16–25) were supported to learn about proposed climate interventions

together and share their learning with each other through small and whole group discussion. Throughout the workshops, participants were encouraged to ask questions, clarify their thinking and change their mind when they encountered convincing new evidence or ideas. This encouraged participation in dialogue and prevented participants from feeling like they had to defend reductive positions on complex issues. Constructive disagreement was encouraged and reasons for it probed to enhance understanding. Workshops were designed and implemented in three parts: orientation, questioning and imagining.

The orientation phase involved the research team sharing findings of social research in climate interventions with participants. For example, pointing out that the ways in which climate interventions are framed and contextualised can be used as persuasive devices, and encouraging participants to consider existing responses to climate change such as greenhouse gas reduction and socio-political responses. Participants were given time in small groups to conduct research online and find out about different proposals for climate intervention. As a result of their research, they were asked to identify questions that would help them take a position. Finally, in the imagining phase, participants were asked, 'If you could draw a picture to represent your conversations today, what would you draw?'

Participants' questions were analysed by the research team in terms of their content, with questions on similar themes grouped together. Questions and ideas for illustration derived from the imagining phase of the workshop were presented to a professional artist who illustrated the questions in the form of cards. Following a round of feedback from participants, these were printed and published.

In the final phase of public switching, a subset of 12 young people volunteered to facilitate online dialogue (lasting 90 min) with a group of 22 scientists and policy-makers with expertise in climate intervention proposals. The youth participants used question cards to stimulate this dialogue.

Methodological reflections on public switching

There are a number of risks associated with researching climate interventions, which were addressed by public switching.

First, there is a risk of making technological climate interventions 'more real' (Bellamy & Lezaun, 2017) by discussing these approaches with non-expert audiences. Concurrently, there is a need to prepare for the governance of emerging technologies. We mitigated this by considering climate interventions against the context of nature-based and socio-political responses to climate change and sharing the findings of a recent review, which concludes that even if climate intervention proposals were actively pursued at scale, it is very unlikely they would be implementable before 2050 (Lawrence et al., 2018). We minimised the risk of implicit or explicit advocacy by engaging scientists and policy-makers 'downstream' of youth. Public switching creates opportunities for constructive action through engagement with scientists and policy-makers working in the field.

Second, dialogue on climate change can be polarising and divisive (Lucas, 2018). During the online dialogues, disagreements were frequently encountered (including where participants found themselves disagreeing with a perspective they had held earlier). During disagreements, we asked participants to identify what they would need to know in order to decide, and to express this in the form of a question. This opened up new paths for discussion and/or research and created opportunities for mutual understanding.

Question creation encouraged participants to discuss complex and controversial issues without reducing thoughts and feelings to a simple position in favour of or against climate interventions. Whilst positions were evident in the focus and expression of some questions (e.g. 'At what point will they involve society in open dialogue and in decision-making processes to discuss the technologies IN RELATION TO HUMAN FACTORS?'), the question format – as an information-seeking intervention in the world – allowed those assumptions to be challenged by other youth participants, and by scientists and policy-makers.

Questions enabled participants to identify gaps in knowledge and data that could be useful to better understand climate interventions and to enhance communication between scientists and the public. As one scientist who participated in the discussion based on youth questions reported:

I've been really happy and impressed by the appreciation of the complexity of the issue. It's not that there is a silver bullet and that's right across the room; everybody really gets that these are difficult decisions and there are trade-offs to make in actions we choose to take, there are risks. But as long as we're having these conversations we can help to get to the decision.

Others noted that the use of questions indicates an openness to challenge and being challenged. People with very different perspectives and priorities were able to disagree constructively. For example, in one exchange on the question of 'what are the possible effects of climate interventions on future generations?', one participating scientist said that question ought to be 'what are the consequences of *inaction* on future generations?', talking about how climate change exacerbates hurricanes and disease transmission in locations in the global south today. This approach improves the depth of understanding of the issue, contextualises climate interventions in the broader international, policy and human landscape, and opens up new lines of enquiry around how best to meet the urgent need for equitable responses to climate change.

Limitations

When creating questions about scientific and technological proposals, it takes time to develop baseline understanding and to identify relevant policy contexts including, e.g. the London Convention and the United Nations Framework Convention on Climate Change. This makes demands on participants' time. Although we were unable to provide financial compensation, we reciprocated in terms of crediting young people for their work and creating opportunities for capacity building (e.g. in facilitating dialogue and writing for policy) and for contribution to public dialogue.

Secondly, the strength of question creation – allowing space for nuance, expression of uncertainty, and recognition of complexity – means that it can be challenging to summarise public perceptions. Typical quantitative approaches indicate percentages supporting or opposing different approaches to climate intervention (Mahajan et al., 2019; Sugiyama et al., 2020), often correlated with psychological or political traits, beliefs, and identities (Raimi, 2021). Qualitative approaches create knowledge about different types of public perception and the criteria important in decision making (Bellamy et al., 2017), as well as identifying reasons why people hold the view they do. However, given the aforementioned challenges around deferral to scientists on non-scientific matters, the way in which framing and the stimulus can affect responses, and the instability of attitudes towards climate interventions, we argue that question creation presents a non-reductive approach to understanding public perceptions and identifies future directions for science and social science research and policy engagement. This is required at the early stages of scientific research and development in order to ensure that societal priorities are reflected in research programmes. Any complex and polarising topic will raise unique epistemological, practical and ethical challenges that researchers will need to consider before using this approach.

Conclusions

In this paper, we have described 'public switching', which uses question creation as a method to investigate complex and polarising issues. Public switching reduces the power distance between experts and the public and, through question creation opens space for the agonistic dialogue needed to demonstrate that democracy is alive (Mouffe, 2000). We have explored the opportunity that public switching presents in the context of researching emerging climate intervention technologies and reflected on the practical, procedural and ethical challenges that must be considered. When

researching situations where there is a high degree of tentativeness, or where positions might be fluid, public switching is a constructive approach which avoids polarisation and allows the public to intervene by requesting information. This enables scientists, policy-makers and members of the public alike to take ownership of uncertainty, articulate concerns, describe tensions and to identify pathways to resolving disagreement and setting priorities for future research and policy. Question creation is inclusive and accessible and can be used to sustain dialogue with different stakeholders in a range of contexts. These characteristics suggest a role for public switching and question creation in democratising research.

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Disclosure statement

No potential conflict of interest was reported by the author(s).

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