## 1

#### A. Interpretation: Debaters must disclose all previously read positions before the debate on their NDCA wiki page under their own name with full citations, tags, and first three/last three words.

#### B. Violation: You didn’t - I have screenshots

Graphical user interface, application, Word

Description automatically generated

#### C. Standards:

#### 1. Evidence Quality – Disclosure generates an information database that encourages debaters to find the best evidence on the topic. Key to education since we have better debates with better arguments.

**Nails 13** [(Jacob, NDT Policy Debater at Georgia State University), “A Defense of Disclosure (Including Third Party Disclosure)”,NSDUpdate,10/10/2013EM] I fall squarely on the side of disclosure. I find that the largest advantage of widespread disclosure is the educational value it provides. First, **disclosure streamlines research.** Rather than every team and every lone wolf researching completely in the dark, **the wiki provides a public body of knowledge that everyone can** contribute to and **build off of. Students can look through** the **different studies** on the topic **and choose the best ones** on an informed basis without the prohibitively large burden of personally surveying all of the literature. The best arguments are identified and replicated, which is a natural result of an open marketplace of ideas. **Quality of evidence increases across the board.**

#### 2. Quality engagement --- disclosure allows in-depth preparation before the round which checks back against unpredictable positions and allows debaters to effectively write case negs and blocks. Not just in the context of this round, but for rounds in general. Quality engagement is an independent voter because the constitutive reason we debate is to engage and clash our arguments otherwise we would just be doing oratory. It’s also key to fairness since I need to have prep to win. This means vote on inclusion since debaters of lower skill level can have a chance to engage with better debaters which makes debate less centered towards those with larger coaching staffs.

#### 3. Academic Ethics --- disclosure deters mis-cutting, power-tagging, abuse of brackets and ellipses, and plagiarism. This is an independent reason to vote you down because it promotes better norms about academic engagement---debate is an academic environment and must ensure that we become fair scholars. Even if you don’t lose on fairness in the round, you will lose in college if you violate academic ethics which establish a crucial real-world norm, and outweighs any in-round impact.

#### Framing: You can’t coopt any of the reasons why procedurals are bad in the context of the affirmative since I don’t constrain your ability to read it– the contention is that this aff should’ve been read, just disclosed. Also, your prep outs argument is nonsense a) prep outs are a 2 way street b) they’re good as per the shell c) being a good debater solves back.

## 2

**Interpretation: Debaters must, on the page with their name and the school they attend, disclose their contact information**

**Violation: on first shell**

**Prefer**

**1] Inclusion – Novices would have a way to contact you about your positions and learn from them and debaters would tell you before round about triggering positions that you’ve read before, accessibility formatting.**

**Independent voter because inclusion is a gateway issue for debate to occur in the first place**

**2] Prep Skew- Pre-round disclosure can’t happen if you don’t have a preferable means of contact because I would never know the aff. I had to check tab for your previous opponents and ask them for your email. Wastes my time when I could’ve been prepping. Ow on education because better prep leads to better debate. Ow on fairness bc the negative only has 30 min to prep before round whereas u have infinite. Tracing your contact info kills my time and it isn’t my job. I’m not the IRS or a hacker, im a high school debater.**

#### Not regressive or unpredictable since its on my wiki.

#### Disclosure paradigm issues

#### Competing interps over reasonability – there’s no “reasonable” way to diclose because you didn’t disclose at all. These shells arent friv, they’re the bare minimum

#### Disclosure highest layer– happens before round

#### No rvi’s – a] myou should’t win for not disclosing. Time skew and other args don’t matter bcs they’re contingent on the fact that ur 1ac was fair to begin with or even deserve a fair route to the ballot. illogical, you don’t win for proving that you meet the burden of being fair, O/ws since it’s a litmus for other arguments b] RVIs incentivize baiting theory and prepping it out which leads to maximally abusive practices

## 3

#### CP: in a democracy, a free press should prioritize advocacy over objectivity through national media literacy when advocating for climate action

#### Aff doenst solve- 1ac hohlmann

#### Climate change will soon reach irreversible tipping points, but it’s not too late, policy action is key.

**Harvey 8-7**-2021 (Fiona Harvey, environment correspondent, The Guardian, “We’re on the brink of catastrophe, warns Tory climate chief”,” August 7 2021, <https://www.theguardian.com/environment/2021/aug/07/were-on-the-brink-of-catastrophe-warns-tory-climate-chief>)

The world will soon face “catastrophe” from climate breakdown if urgent action is not taken, the British president of vital UN climate talks has warned. Alok Sharma, the UK minister in charge of the Cop26 talks to be held in Glasgow this November, told the Observer that the consequences of failure would be “catastrophic”: “I don’t think there’s any other word for it. You’re seeing on a daily basis what is happening across the world. Last year was the hottest on record, the last decade the hottest decade on record.” But Sharma also insisted the UK could carry on with fossil-fuel projects, in the face of mounting criticism of plans to license new oil and gas fields. He defended the government’s record on plans to reach net zero emissions by 2050, which have been heavily criticised by the UK’s independent Committee on Climate Change, and dismissed controversies over his travel schedule. The Intergovernmental Panel on Climate Change (IPCC), the world’s leading authority on climate science, will publish a comprehensive report on Monday showing how close humanity is to the brink of potentially irreversible disaster caused by extreme weather. “This is going to be the starkest warning yet that human behaviour is alarmingly accelerating global warming and this is why Cop26 has to be the moment we get this right. We can’t afford to wait two years, five years, 10 years – this is the moment,” Sharma warned, in his first major interview since taking charge of the climate talks. “I don’t think we’re out of time but I think we’re getting dangerously close to when we might be out of time. We will see [from the IPCC] a very, very clear warning that unless we act now, we will unfortunately be out of time.” The consequences of global heating were already evident, he said. “We’re seeing the impacts across the world – in the UK or the terrible flooding we’ve seen across Europe and China, or forest fires, the record temperatures that we’ve seen in North America. Every day you will see a new high being recorded in one way or another across the world.” This was not about abstract science but people’s lives, he added. “Ultimately this comes down to the very real human impact this is having across the world. I’ve visited communities that as a result of climate change have literally had to flee their homes and move because of a combination of drought and flooding.” Sharma spoke exclusively to the Observer on the eve of the IPCC report to urge governments, businesses and individuals around the world to take heed, and press for stronger action on greenhouse gas emissions at the Cop26 conference, which he said would be almost the last chance. “This [IPCC report] is going to be a wake-up call for anyone who hasn’t yet understood why this next decade has to be absolutely decisive in terms of climate action. We will also get a pretty clear understanding that human activity is driving climate change at alarming rates,” he said. Disaster was not yet inevitable, and actions now could save lives in the future, he added: “Every fraction of a degree rise [in temperature] makes a difference and that’s why countries have to act now.”

#### Narratives and persuasive strategies in papers are structurally better ways to influence government decision makers to pass climate conservation policies.

* Localism
* Accessible Language
* Emblematic rhetoric
* Economy

[**Rose** et al **16**, 6/30/16, David C. Rose, Peter N.M. Brotherton, Thomas Pryke Rose, D.C., Brotherton, P.N.M., Owens, S. *et al.* Dave Rose is a Professor of Economics at the University of Missouri-St. Louis. He has served as the Department Director of Graduate Studies and as the Department Chair. He received his Ph.D. in Economics in 1987 from the University of Virginia. “Honest advocacy for nature: presenting a persuasive narrative for conservation.” Biodivers Conserv 27, 1703–1723 (2018). <https://doi.org/10.1007/s10531-016-1163-1>] // SC SD

Policy analysts have long recognised that the **framing of knowledge is a significant factor in determining the outcome of science-policy interactions** (Hajer [2003](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR21); Owens [2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR39); Rein and Schön [1991](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR45); Rose [2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR48)). By framing knowledge astutely, it can enhance the policy relevance of research, particularly if proposed solutions can be made to fit within existing political priorities. Clear communication is also an important part of engaging well with policy-makers who are not expert in the field (Torgerson [1986](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR59)). As part of efforts to engage more closely with policy, conservation scientists have also begun to identify the usefulness of frames, or narratives, through which to enhance the influence of their knowledge (Carmen et al. in prep.; Cook et al. [2013](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR12); Howard et al. in prep.; Jokinen et al. in prep..; Leslie et al. [2013](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR34); Lawton and Rudd [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR31); Rose [2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR48); Tinch et al. in prep.). Indeed, there has been a marked increase in inter-disciplinary collaborations between conservation scientists and policy researchers (Jørgensen et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR27); Sarkki et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR49), [2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR50); Young et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR66)), exemplifying the progress made since Agrawal and Ostrom’s ([2006](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR5)) claim that conservation was ambivalent towards political science. Furthermore, conservation scientists have sought to offer useful advice about how to engage better with policy (Burgman [2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR11)); ranging from the early identification of forthcoming issues on the policy agenda to prepare relevant research in advance (Sutherland et al. [2015a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR55)) through to more fundamental issues concerning the interdisciplinary training of graduate students (Blickley et al. [2013](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR9); Bainbridge [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR6)). In light of such recommendations, it is clear that some conservation researchers are starting the necessary process of identifying practical methods to overcome the limited uptake of knowledge into policy. However, despite these useful contributions, little research in conservation science has focused on a specific case where skilfully framed knowledge has been influential in decision-making; indeed, a review by Spruijt et al. ([2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR53)) suggests that there is a lack of empirical evidence for interactions at the science-policy interface across all disciplines. This paper provides an empirical example of knowledge impact, and explores how it might help conservation scientists to frame and communicate research effectively. Whilst it uses an English case study, it seeks to draw out lessons for conservation scientists working elsewhere. Specifically, it focuses on the impact of one report published in 2010, which had an immediate effect on government policy in England, partially as a result of an astute framing of knowledge. In fact, this report had such a profound influence on policy that it is widely seen as ‘an example of how to present good science to policy-makers’ (*Department for Environment, Food and Rural Affairs [DEFRA] civil servant 2, in interview for this project*). In examining the case, this paper builds on science-policy work that stresses the need for practical advice, but takes the debate one step further. Instead of merely identifying methods through which conservation scientists could achieve greater engagement with policy, it provides a solid example for researchers to grasp, interrogate, and take lessons from. It does not suggest that the events described can be replicated, nor can the *Lawton Review* be seen as a ‘logical framework’ (*in* sensu Black and Copsey [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR8)) from which scientists should not diverge. Instead, this paper stresses **the importance of framing and communication to improve the salience of scientific evidence. In doing so, it shows that it is possible to be an honest advocate for nature by presenting rigorous science in a convincing way**. The report ‘Making Space for Nature: A Review of England’s Wildlife Sites and Ecological Network’ (hereafter referred to as the ***Lawton Review***) was produced by an independent Review panel in 2010, and **assessed the coherence of England’s ecological network and its capability to withstand future pressures** (such as those linked to climatic and land use changes). The *Lawton Review* **promoted the idea of landscape-scale conservation**, and summarised its 24 recommendations by the four-word phrase *‘More, Bigger, Better, Joined’*. It presented a strong scientific case for a wider approach to conservation in England, moving away from a dominant site-based strategy focused on individual reserves towards a more holistic concept.[Footnote1](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn1) **The *Lawton Review* was commissioned in the final year of a Labour-led government and was ultimately submitted to a Conservative-led coalition government**. Despite the change in political administration, the ***Lawton Review* achieved an immediate and significant impact on government policy affecting England**, representing a key part of the knowledge underpinning the *Natural Environment White* Paper[Footnote2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn2) (DEFRA [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14); Lawton and Rudd [2016](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR32)). In the UK, a White Paper reflects a government’s intention to tackle particular problems by preparing policies which may be enacted into legislation (Shin and Choi [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR52)). This was the first White Paper to deal specifically with the natural environment and conservation for over twenty years. The *Natural Environment White Paper* (and the related *Biodiversity 2020* strategy, Defra [2011c](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR16)), published less than a year after the *Lawton Review,* endorsed a landscape-scale approach as the government’s policy position. The statements below illustrate the impact of the *Lawton Review* on the subsequent White Paper: The [Lawton] report was one of the key drivers of our *Natural Environment White Paper* published in June 2011, and the England Biodiversity Strategy published later in 2011. (Nick Clegg, Deputy Prime Minister 2011 cited in Harper [2012](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR22)) The Lawton Report, Making Space for Nature, found that nature in England is highly fragmented and unable to respond effectively to new pressures such as climate…Past action has often taken place on too small a scale. We want to promote an ambitious, integrated approach, creating a resilient ecological network. (*Natural Environment White Paper*, DEFRA [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14), p. 5) Although making an impact on government and institutional policy does not guarantee a net conservation benefit on the ground, it is a first step to achieving an impact in practice. Thus, the *Lawton Review* seemed to provide a compelling scientific base for the landscape-scale strategy set out in the White Paper (Adams et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR2)). **Its rapid and direct policy impact stands in contrast to that of many other scientific advisory reports**. For example, a report with similar scope to the *Lawton Review* published ten years previously (Hossell et al. [2000](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR23)) also recommended the move towards a landscape-scale approach, but seemed to have little direct impact on government policy (*based on an interview of one of its co*-*authors for this project*). The failure to have immediate impact is not in itself surprising; such an outcome has often been observed by analysts of policy advice. For example, Owens’ ([2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR39)) study of the UK Royal Commission on Environmental Pollution (which advised governments over 40 years) showed that whilst some reports had immediate effect (and a few never gained traction), influence was often a diffuse affair involving cognitive and discursive processes over extended periods of time. The significance of the immediate impact experienced by the *Lawton Review* is strengthened because the need for landscape-scale conservation had been consistently communicated to policy-makers for at least twenty years (Adams et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR2)). It is therefore interesting to ask why the *Lawton Review* experienced an immediate and significant impact on government policy. Illuminating the reasons for this impact may help conservation scientists to improve the policy impact of their work, ultimately **improving the chances for evidence-based conservation.** A thematic analysis was conducted on the *Lawton Review* (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33)) and related to two key areas. Firstly, it asked how the review framed reasons to conserve biodiversity. Secondly, it asked at what governance levels a landscape-scale approach to conservation should be carried out and whether examples of success stores were used. These two areas were selected on the basis that **persuasive narratives for the conservation of biodiversity are important for policy change, as are suggested policy mechanisms that are practical to carry out.** Two broad motivations for conserving nature were found after coding the document[Footnote3](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn3)—(1) nature provides valuable ecosystem services and (2) nature has intrinsic value. On the second question, the broad thrust of the *Lawton Review* emphasised the need for local, and multi-stakeholder, contributions to landscape-scale conservation and used success stories to illustrate where landscape-scale conservation had worked.[Footnote4](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn4) Keywords were developed for these five themes (see Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2))—ecosystem services, intrinsic value of nature, localism, diverse stakeholders, and success stories, as well an additional theme of climate change (found to be emphasised throughout from an initial read-through)—and were counted to see how many times they appeared in the review (a similar ‘word use’ process to Admiraal et al. [2016](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR4)). The same keywords were then counted to find how many times they appeared in the *Natural Environment White Paper* (DEFRA [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14)) and its associated evidence report (DEFRA [2011b](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR15)) was counted. This process, shown in Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2), was undertaken to investigate the saliency of key themes in the *Lawton* *Review* as compared to the subsequent White Paper. Semi-structured interviews were carried out as part of a wider PhD project that assessed the impact of landscape-scale conservation as an idea on UK policy from 1990 to 2011. Thirty-five interviewees ([Appendix 1](https://link.springer.com/article/10.1007/s10531-016-1163-1#Sec16)) were chosen based on their ability to discuss science-policy interactions at all levels of governance: national government/statutory agency level (UK and England), local government, as well as others working at the conservation-science policy interface, including members of conservation NGOs and academics. Interviews lasted up to an hour and were tailored to some extent to the individual. The first part of the interview (see [Appendix 2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Sec22)) covered general questions about the relationship between science and policy, focusing on barriers to evidence uptake and the role of frames and storylines in evidence communication. The latter part of the interview focused on the *Natural Environment White Paper*, asking about the reasons for the endorsement of landscape-scale conservation and discussing the reasons for the immediate impact of the *Lawton Review*. All interviewees were able to contribute fully on the section devoted to general barriers to evidence uptake, but four interviewees with more practice-based mandates were generally less able to comment on the fortunes of the *Lawton Review*. The motivations for the White Paper content and the impact of the *Lawton Review* were best discussed with participants who were closely associated with both documents. These included DEFRA Ministers/civil servants, Natural England staff, Professor Sir John Lawton, and to some extent academics who had knowledge of the policy events. Other senior members of conservation organisations had also followed the progress of the *Lawton Review* and the White Paper and were able to give informed comment about the reasons for impact. Quotations used for the impact of the *Lawton Review* on the White Paper, therefore, tend to be selected from those who had the greatest knowledge of events. Each interview was recorded, transcribed in full, and coded manually to look for key themes in the data.[Footnote5](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn5) As this paper is focused on the *Lawton Review*, the codes produced from an analysis of the second part of the interview are included here (Table [1](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab1)). Overall, interviewees considered **several factors to be important in explaining the impact of the *Lawton Review*** (Table [1](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab1))—including the economic valuation of nature (and other services), a favourable policy window, **good framing and use of language, the presentation of success stories, the use of emblematic climate change**, localism, and the rigour and certainty of the science. Some of these factors mirror the identification of common themes used in both the *Lawton Review* and the *Natural Environment White Paper* (Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)); which were the economic value of nature (and other services), climate change, localism, and the inclusion of stakeholders. These findings can be neatly discussed in four sections to determine why the *Lawton Review* was influential–(1) the use of politically salient frames to illustrate the value and practicality of landscape-scale conservation, (2) the use of clear, accessible language, (3) the power of good, rigorous science conducted by an authoritative group of experts, and (4) the juxtaposition of the review’s publication with a favourable policy window. Upon tracing the previous academic contribution of Professor Sir John Lawton to policy analysis, it is suggested that the use of salient frames, clear accessible language, good science, and the ability to seize on a policy window were deliberate techniques. Notably, Lawton reported that his team received no interference from policy-makers in terms of how to write the review. In an interview for this study, **Lawton argued**: Nobody told us how to write the review. I took the very conscious decision, with the full support of my panel, **to write it in plain English, with ‘good news stories’ where they were appropriate, and a persuasive, interesting narrative** that was scientifically accurate. In an earlier paper, Lawton ([2007](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR30)) attempted to answer questions commonly faced by conservation scientists. He wrote: My ultimate aim is simple: to make sure that when ecologists do enter the political arena they do so with their eyes open, expecting to be in it for the long haul in a process that is messy, complex and iterative. (Lawton [2007](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR30), p. 465) As chair of the Royal Commission on Environmental Pollution (RCEP) (2005–2011), Lawton was able to gain considerable knowledge of the policy-making process. Owens ([2015](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR39)) found that reports of the RCEP had widely varying effects, and thus Lawton would have been acutely aware of the complex and contingent relationship between science and policy. Hence, he was in a position to act as a key policy entrepreneur by making use of his knowledge of the science-policy interface (Lawton and Rudd [2016](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR32)). Politically salient choice of themes in *Lawton Review* From documentary analysis and interviewing, it is clear that the *Lawton Review* used salient frames through which to show the importance of landscape-scale conservation (Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)). Frame 1: Emblematic climate change An academic conservation scientist noted that ‘the **Lawton Report** could have been written without climate change’ (Academic Conservation Scientist A), because several drivers of habitat fragmentation, such as urban sprawl, are also responsible for creating an isolated network of Protected Areas. Although the *Lawton Review* did address a number of drivers of biodiversity loss (e.g. poor habitat management, introduced pests), it **chose to draw substantially on the threat of climate change to promote landscape-scale management (see Table**[**2**](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)**). The focus on climate change is clear throughout**; the quality of the ecological network is always discussed in the context of ‘climate change and other pressures’ (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. 4). In fact, it argues that ‘climate change, particularly in the longer term, may have the biggest impact of all.’ (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. vi). A leading scientist at Natural England also noticed this emphasis: Of course climate change is not the only driver in the *Lawton Review*, but it certainly was an important factor in the context of the report. **The *Lawton Review*’s use of climate change chimed with the landscape-scale approach to conservation.** The relative resonance of climate change with policy-makers, as compared to biodiversity conservation, has been discussed in the literature. Jørgensen et al. ([2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR27), p. 2) suggested that climate change is the most important contemporary problem for public policy, with many considering the issue to be ‘*the* environmental issue of the twenty-first century’. This statement draws parallels with the work of Hajer ([1995](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR20)) who argued that **specific issues can achieve emblematic status for a particular cause.** From a UK perspective, climate change is arguably the most discussed environmental issue by central government, particularly after the UK Climate Change Act (2008) was passed with cross-party support. Indeed, it was hailed as the ‘greatest threat to our common future’ in the Queen’s Speech of 2010 (in Shin and Choi [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR52), p. 11). In addition, Zaccai and Adams ([2012](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR67)) have investigated how the prominence of climate change affects its influence as a policy issue. Comparing it to the concept of biodiversity loss, they argued that **climate change is ‘better defined and better understood’ (557) by policy-makers. In contrast, biodiversity loss is ‘less easily understood, less tangible, and policy responses do not engage major economic sectors’** (557). Documentary analysis of the *Lawton Review* and White Paper further illustrated the growing political salience of climate change (Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)). As seen in the brief given to the *Lawton Review* team: …with the effects of climate change and other pressures on our land, now is the time to see how we can enhance ecological England further to make ecological corridors and a connected network. (Benn in Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. ii) The *Natural Environment White Paper* referred to the issue widely, as did Caroline Spelman, who was in receipt of the *Lawton Review* as Secretary of State at the Department of Environment, Food and Rural Affairs (DEFRA). When asked why the *Lawton Review* had an immediate impact on policy, Spelman argued that ‘**there was a greater acceptance and a greater understanding of the threats of climate change and the urgency of the problem’.** Furthermore, the emphasis on climate change within the *Natural Environment White Paper* (2011) was clear: Climate change is one of the biggest environmental threats facing the world today, and perhaps the greatest economic challenge…Helping the natural environment to adapt to climate change is a theme that runs throughout this White Paper. (*Natural Environment White Paper*, DEFRA [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14), p. 10) Thus, it is possible to see the relevance of climate change when the *Lawton Review* was published. **The *Lawton Review* did not have to focus on climate change to make the case for landscape-scale conservation, but made a deliberate choice to do so**, and hence seized on the opportunity to convey a politically salient idea. Frame 2: The political salience of an economic valuation of nature The *Lawton Review* employed a **second framing of knowledge about landscape-scale conservation, arguing that its recommendations would contribute to the protection of valuable ecosystem services** (Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)). The following extract from the review illustrate this storyline: The report argues that we need a step-change in our approach to wildlife conservation…to one of large-scale habitat restoration and recreation, under-pinned by the re-establishment of ecological processes and ecosystem services. (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. .ii) The extract highlights the strong link between the report’s landscape-scale recommendations and ecosystem services, **using an economic storyline to ‘underpin’ habitat restoration**. As with the incisive use of climate change as a policy-relevant narrative, the use of ecosystem services further represented a useful context. Whilst there is disagreement about the suitability of an ‘ecosystem services’ mind-set to prevent biodiversity loss (McCauley [2006](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR36); Mace et al. [2012](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR35); Adams [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR1)), **framing conservation in such a manner is arguably necessary if voters (and governments) continue to prioritise economics** (EU Commission [2013](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR17)). In fact, many authors have argued that employing an ecosystem services storyline can be useful for placing conservation onto a political agenda (Daily and Matson [2008](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR13); Jørgensen et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR27); Tinch et al. in prep.). This literature fits well with the thrust of government policy documents around the time of the *Lawton Review*. In fact, the focus on the economic value of nature (and other services) was the most prominent theme in the White Paper and its associated evidence report (Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)). In a brief discussion of the *Natural Environment White Paper*, Adams et al. ([2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR2), p. 574) outline its language of ‘growth, prosperity, security, and benefits’. They also highlight how **conservation was being increasingly presented at this time as a way of achieving wider social and economic benefits** (Adams et al. [2014](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR2)). The knowledge report for the White Paper (DEFRA [2011b](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR15), p. 3) also stated that ‘nature represents a stock of assets from which society benefits in numerous and hidden ways’. This in turn affected the focus of the White Paper itself. It argued that ‘a healthy, properly functioning natural environment is the foundation of sustained economic growth…the reasons for many of the actions proposed in this White Paper’ (*Natural Environment White Paper*, DEFRA, [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14), pp. 3–4). Interviewees from DEFRA also referred to the quasi-economic content in the *Natural Environment White Paper*. Caroline Spelman, Secretary of State at DEFRA, argued that ‘the National Ecosystem Assessment gives real ability to calculate the worth of nature that we previously thought was provided for free.’ Furthermore, Professor Sir John Lawton thought that ‘quite a lot of politicians’ had begun ‘to get the fact that the environment provides services’. Lawton also reported that his team had worked closely with academics working on the UK National Ecosystem Assessment (UK NEA [2011](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR60)), published around the same time. This assessment of the value of ecosystem services in the UK concluded that nature provided multi-billion pound benefits to society (UK NEA [2011](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR60)), and it played an important role in increasing the political salience of biodiversity conservation. The ***Lawton Review* also framed the economic cost of doing landscape-scale conservation in a positive way**. Whilst recognising that there would be a management cost, the consequences of taking early action were framed as beneficial. It argued that ‘there is one thing of which we can be certain: the sooner we act to establish a coherent and resilient ecological network, the lower the eventual cost and the greater the benefits for us all.’ (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. ix). Alongside the wider framing of ecosystem services, this helped knowledge about landscape-scale conservation to be received in a positive light by policy-makers. Frame 3: Localism A further storyline used in the *Lawton Review* referred to a localist approach to governance, in which locally-led decisions (not central government dominated) were needed for effective landscape-scale management. The following extract from the report illustrates the widespread promotion of local approaches to conservation: Delivering our vision is not a job for government alone…We will not achieve a step-change in nature conservation in England without society accepting that it is necessary, desirable, and achievable…Many of the decisions on the priorities for action are best made locally. (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. 3) With reference to the *Lawton Review*, framing landscape-scale conservation in terms of localism represented a further policy-relevant storyline, improving the prospects for influence. Localism was a politically mainstream issue at the time of publication, the Conservatives having fought their successful 2010 General Election in part on a localist agenda (The Guardian [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR58)). If, as Kingdon ([2003](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR28)) suggests, ideas are most influential when they can be used as ready-made policies to suit pre-existing ideologies, it seems likely that the new government were actively searching for projects through which to realise a localist agenda. In the context of the *Localism Act* (2011), which cemented these ambitions, it is possible to witness the clear emphasis on local decision-making in the *Natural Environment White Paper* (2011). The White Paper set out to achieve landscape-scale conservation through ‘joined-up action at local and national levels to create an ecological network which is resilient to changing pressures’ (DEFRA [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14), p. 14). It referenced the concept of localism regularly, and set up Local Nature Partnerships (LNPs): In developing this White Paper, we have received one particularly clear message: effective action to benefit nature, people and the economy locally happens when the right people come together in partnership… We will encourage and support Local Nature Partnerships where local areas wish to establish them. (DEFRA [2011a](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR14), p. 19) Furthermore, the shift of emphasis away from centralised decision-making was noticeable in an interview conducted with a DEFRA civil servant (3). This interviewee referred to the aims of LNPs: ‘I think we are all hopeful…for any mechanism, which seeks to inspire local delivery, that LNPs may drive policy from bottom-up…We hope that any useful, innovative measures that LNPs may identify, which DEFRA can see working, can feed back into policy development.’ (DEFRA Civil Servant 3) Therefore, it was again pertinent to seize on a salient political issue by employing a localist storyline in the *Lawton Review*. The inclusion of non-governmental stakeholders also links here, but is discussed in the following section. Frame 4: Success stories, deliverable recommendations, and the inclusion of stakeholders. The ***Lawton Review* presented knowledge for landscape-scale conservation in the context of action-based success stories**. It indicated that projects had already been implemented on the ground by voluntary conservation organisations, with considerable success: ‘There are…well thought through frameworks to inform and, where necessary, co-ordinate such actions [landscape-scale], including The Wildlife Trusts’ vision of a Living Landscape, the RSPB’s Futurescapes, emerging proposals for landscape-scale initiatives from the England Biodiversity Group, Regional Opportunity Maps and the Wetland Vision for England’ (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. 62) Further **references were made to the lessons learned from trialling conservation projects** in practice through the use of six special boxes in the review. This action-based knowledge was useful in convincing policy-makers that landscape-scale conservation would work, particularly as a practical template for landscape-scale management had been historically lacking (Morecroft et al. [2012](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR37)). Lessons learned from NGO-led landscape projects during the late 2000s therefore reduced the risk of enacting a potentially risky and costly policy. A civil servant (1) in DEFRA made a similar point on the value of showing that landscape-scale conservation projects worked: Responses from colleagues closely involved in the *Natural Environment White Paper*…suggest that they saw these kinds of projects as very much proof of concept, demonstrating that you could link up large areas of landscape…and that it was feasible…This gave the *Natural Environment White Paper* team confidence in advocating the landscape scale approach. (DEFRA civil servant 1) This civil servant made a clear link between tested projects on the ground and the policy commitments made in the White Paper. This **process mirrors much of the recent conservation literature, which indicates that positive framing can improve the policy impact of scientific knowledge** (Balmford [2012](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR7); Carmen et al. in prep.), particularly if the action-based knowledge clearly illustrates ‘what works’ (Sutherland et al. [2015b](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR56)). Indeed, a DEFRA civil servant (2) thought that individual policy-makers are affected by a range of knowledge types; some by graphs and equations, but others ‘need a different form of presentation, much more action-oriented, something that has been demonstrated as working’. The inclusion of action-based knowledge thus enhanced the recommendations of the *Lawton Review*. Demonstrating that the *Lawton Review’s* recommendations were feasible was particularly important because the final price tag attached to achieving the end-goal of a ‘coherent and resilient ecological network’ was politically daunting: £600 m–£1.1 billion (Lawton et al. [2010](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR33), p. 91), particularly for a government with an austerity agenda. In addition to proposals for ambitious, long-term actions, the review included short term, affordable recommendations facilitating its ability to gain rapid policy traction (notably recommendation 3, to establish 12 Ecological Restoration Zones which was responded to immediately through the *Natural Environment White Paper’s* commitment to establish 12 Nature Improvement Areas). In addition to illustrating feasibility, the recommendations within the report were inclusive. The review panel included members of conservation NGOs, the National Farmers Union, the Country Land and Business Association and Local Authorities, and at least some of the recommendations in the report resonated with each of these stakeholders. This ensured that there was support for (or at least lack of opposition to) the review from diverse stakeholders, so politicians received no clamour of dissent from influential groups, as is often the case when environmental reports are published. The White Paper noted that a multi-stakeholder approach to landscape-scale conservation was desirable (Table [2](https://link.springer.com/article/10.1007/s10531-016-1163-1#Tab2)). Interviewees with close knowledge of the *Lawton Review* (e.g. those in DEFRA and Natural England) praised its clear presentation style. For example, a landscape ecologist at Natural England,[Footnote6](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn6) argued that the report ‘made a compelling argument, and it was very well presented’. It wisely communicated its findings in an accessible way (Lawton and Rudd [2016](https://link.springer.com/article/10.1007/s10531-016-1163-1#ref-CR32)). The lead author of the report, Professor Sir John Lawton, commented that: ‘I devoted six weeks of my life to getting it right and writing it in such a way that was understandable, clear and readable by non-expert policy-makers. I wrote a long executive summary to try and make it accessible. I spoke with one of the MPs attached to the environment department after the report. He said he wasn’t going to bother reading the report in full until he saw the word ‘creepy crawly’. He said to me ‘the word creepy crawly[Footnote7](https://link.springer.com/article/10.1007/s10531-016-1163-1#Fn7) in a scientific report for the government, this can’t be that bad!’ He went on to read it in full.’ Improving the communication of science is commonly recommended to improve the chances of evidence-based policy. In general, policy-makers are not expert in the field of conservation science, and therefore knowledge must be presented carefully. There was strong evidence in the case of the *Lawton Review* that the accessible writing style was a significant factor in maintaining the attention of policy-makers. A civil servant (1) based at DEFRA at the time agreed that the review’s influence was enhanced because ‘it was not purely a scientific bit of work; instead it was written for a much wider audience.’ Furthermore, another DEFRA civil servant (2) argued that it managed to put ‘forward the sorts of ideas that tend to be associated with tree-huggers and sandal-wearers into much more everyday parlance’, and this accessible style was welcomed by policy-makers.

#### Climate policy solves climate change.

**[Union of Concerned Scientists no Date**, The Union of Concerned Scientists is a nonprofit science advocacy organization based in the United States. The UCS membership includes many private citizens in addition to professional scientists. “Climate Solutions, We need to Act Now” <https://www.ucsusa.org/climate/solutions>] // SC SD

Climate change is one of the most challenging problems that humanity has ever faced. At stake are hundreds of millions of lives, innumerable species and ecosystems, the health and viability of the economy, and the future habitability of this planet. Fortunately**, climate change is solvable**. We have the technologies. We have the science. We now need the leadership—and the courage to change course. Cut emissions Carbon dioxide and other heat-trapping gases are the main drivers of global warming. While climate change cannot be stopped, it can be slowed. To avoid the worst consequences of climate change, **we’ll need to reach “net zero” carbon emissions by 2050** or sooner. Net zero means that, on balance, no more carbon is dumped into the atmosphere than is taken out. **To achieve net zero emissions**, we need a massive transformation in how we produce and consume electricity. We need a newer, better transportation system. **We need** to stop deforestation. We need a climate-friendly agricultural system. The scale of these changes will require **significant federal policy that puts a price on carbon**. It also requires international cooperation: the [Paris Agreement](https://blog.ucsusa.org/tag/paris-international-climate-negotiations), signed in 2016, reflects the world’s best effort to solve climate change so far, though it doesn’t include the emissions reductions we need. Much remains to be done—and we need to do it as quickly as possible. **Remove carbon dioxide** To reach net zero emissions, we need to do more than just reduce our emissions: we need to actively remove carbon dioxide from the atmosphere or offset its effects. The easiest way to do this is by **planting new forests** (afforestation) **or** restoring old ones (reforestation). Other enhanced **land management practices can help**, as can new technologies that suck CO2 out of the air (“direct air capture”), or prevent it from leaving smokestacks (“carbon capture and storage”). Scale, speed, and cost are the main barriers to all these technologies and approaches. In the United States, **strong state- and federal-level policies—and large-scale investment in research and development—are crucial.** Fight disinformation For years, media pundits, partisan think tanks, and special interest groups funded by fossil fuel companies have raised doubts about the truth of global warming. These contrarians downplay and distort the evidence of climate change, lobby for policies that reward polluters, and attempt to undercut existing pollution standards. This barrage of disinformation misleads and confuses the public about the growing consequences of global warming and makes it more difficult to implement the solutions we really need. Until the influence of these special interests is sufficiently diminished, climate action will be that much harder. Prepare and adapt No matter how quickly we reduce emissions, the reality is that certain climate impacts are inevitable. The seas are rising. Temperatures break records every year. Droughts, floods, and extreme weather are damaging communities today. **Cutting carbon is the only long-term solution for avoiding climate impacts. In the short-term, we need to adapt. That means everything from discouraging development in high-risk areas, to planning for water scarcity, to building more resilient cities and communities.** Investments should be scientifically sound and socially just, and focused where the impacts are greatest—often in low-income communities and communities of color. Act **The best policy ideas in the world aren’t worth much if we don’t have activists, experts, and everyday people fighting for change**. From school groups to churches; from corporate boardrooms to mayors and local leaders: we need action. The Union of Concerned Scientists has worked on global warming solutions for over 30 years. Our experts and activists are campaigning to cut emissions from the energy and transportation sectors; highlighting climate impacts; and fighting for accountability from major fossil fuel companies. [You can help](https://www.ucsusa.org/node/23).

**Climate change causes extinction – ocean acidification, water and resource wars, econ collapse, and regional conflicts.**

Pachauri and Meyer 15 (Rajendra K. Pachauri Chairman of the IPCC, Leo Meyer Head, Technical Support Unit IPCC were the editors for this IPCC report, “Climate Change 2014 Synthesis Report” <http://epic.awi.de/37530/1/IPCC_AR5_SYR_Final.pdf> IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp)

SPM 2.3 Future risks and impacts caused by a changing climate Climate change will amplify existing risks and create new risks for natural and human systems. Risks are unevenly distributed and are generally greater for disadvantaged people and communities in countries at all levels of development. {2.3} Risk of climate-related impacts results from the interaction of climate-related hazards (including hazardous events and trends) with the vulnerability and exposure of human and natural systems, including their ability to adapt. Rising rates and magnitudes of warming and other changes in the climate system, accompanied by ocean acidification, increase the risk of severe, pervasive and in some cases irreversible detrimental impacts. Some risks are particularly relevant for individual regions (Figure SPM.8), while others are global. The overall risks of future climate change impacts can be reduced by limiting the rate and magnitude of climate change, including ocean acidification. The precise levels of climate change sufficient to trigger abrupt and irreversible change remain uncertain, but the risk associated with crossing such thresholds increases with rising temperature (medium confidence). For risk assessment, it is important to evaluate the widest possible range of impacts, including low-probability outcomes with large consequences. {1.5, 2.3, 2.4, 3.3, Box Introduction.1, Box 2.3, Box 2.4} A large fraction of species faces increased extinction risk due to climate change during and beyond the 21st century, especially as climate change interacts with other stressors (high confidence). Most plant species cannot naturally shift their geographical ranges sufficiently fast to keep up with current and high projected rates of climate change in most landscapes; most small mammals and freshwater molluscs will not be able to keep up at the rates projected under RCP4.5 and above in flat landscapes in this century (high confidence). Future risk is indicated to be high by the observation that natural global climate change at rates lower than current anthropogenic climate change caused significant ecosystem shifts and species extinctions during the past millions of years. Marine organisms will face progressively lower oxygen levels and high rates and magnitudes of ocean acidification (high confidence), with associated risks exacerbated by rising ocean temperature extremes (medium confidence). Coral reefs and polar ecosystems are highly vulnerable. Coastal systems and low-lying areas are at risk from sea level rise, which will continue for centuries even if the global mean temperature is stabilized (high confidence). {2.3, 2.4, Figure 2.5} Climate change is projected to undermine food security (Figure SPM.9). Due to projected climate change by the mid-21st century and beyond, global marine species redistribution and marine biodiversity reduction in sensitive regions will challenge the sustained provision of fisheries productivity and other ecosystem services (high confidence). For wheat, rice and maize in tropical and temperate regions, climate change without adaptation is projected to negatively impact production for local temperature increases of 2°C or more above late 20th century levels, although individual locations may benefit (medium confidence). Global temperature increases of ~4°C or more 13 above late 20th century levels, combined with increasing food demand, would pose large risks to food security globally(high confidence). Climate change is projected to reduce renewable surface water and groundwater resources in most dry subtropical regions (robust evidence, high agreement), intensifying competition for water among sectors (limited evidence, medium agreement). {2.3.1, 2.3.2} Until mid-century, projected climate change will impact human health mainly by exacerbating health problems that already exist (very high confidence). Throughout the 21st century, climate change is expected to lead to increases in ill-health in many regions and especially in developing countries with low income, as compared to a baseline without climate change (high confidence). By 2100 for RCP8.5, the combination of high temperature and humidity in some areas for parts of the year is expected to compromise common human activities, including growing food and working outdoors (high confidence). {2.3.2} In urban areas climate change is projected to increase risks for people, assets, economies and ecosystems, including risks from heat stress, storms and extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, water scarcity, sea level rise and storm surges (very high confidence). These risks are amplified for those lacking essential infrastructure and services or living in exposed areas. {2.3.2} Rural areas are expected to experience major impacts on water availability and supply, food security, infrastructure and agricultural incomes, including shifts in the production areas of food and non-food crops around the world (high confidence). {2.3.2} Aggregate economic losses accelerate with increasing temperature (limited evidence, high agreement), but global economic impacts from climate change are currently difficult to estimate. From a poverty perspective, climate change impacts are projected to slow down economic growth, make poverty reduction more difficult, further erode food security and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger (medium confidence). International dimensions such as trade and relations among states are also important for understanding the risks of climate change at regional scales. {2.3.2} Climate change is projected to increase displacement of people (medium evidence, high agreement). Populations that lack the resources for planned migration experience higher exposure to extreme weather events, particularly in developing countries with low income. Climate change can indirectlyincrease risks of violent conflicts by amplifying well-documented drivers of these conflicts such as poverty and economic shocks (medium confidence). {2.3.2} 2010 )

## 4

#### PIC: In a democracy, a free press should prioritize objectivity through national media literacy over advocacy national media literacy except with black journalists, in which case they should prioritize their advocacies.

#### Objectivity is a tool to silence black voices and issues in media

Schneider 20 [Gabe Schneider, political journalist with a degree in Political Science and Urban Planning from University of California San Diego, 12-21-2020, "Journalism outlets need new social media policies," University of Missouri Reynolds Journalism Institute, https://rjionline.org/reporting/journalism-outlets-need-new-social-media-policies/]/Kankee

What should they look like? Pittsburgh Post-Gazette journalist Alexis Johnson was barred from protest coverage after joking about a Kenny Chesney concert on Twitter. She tweeted: “Horrifying scenes and aftermath from selfish LOOTERS who don’t care about this city!!!!! …. oh wait sorry. No, these are pictures from a Kenny Chesney concert tailgate. Whoops.” Johnson, a Black journalist, was punished for making a joke about the media framing of “riots” and “looting.” While one of her white colleagues called one alleged looter a “scumbag,” it was Johnson who was punished. “I was told it violated our social media policy. They kept calling it an educational conversation, but there was no warning, no ‘Hey can you take the tweet down?’ By Monday morning, they had decided I would no longer be able to cover it,” Johnson told CBS2. The harsh reactionary punishment applied to Johnson is ridiculous, but not unique. Other Black journalists have faced similar repercussions: Wesley Lowery was punished by the Washington Post for correctly framing the Tea Party as a racist reactionary movement. So was Kendra Pierre-Louis, who was punished by the New York Times for saying white supremacy is racist. The trend line is that reporters, often Black, are punished for their perspective, even if it’s rooted in reporting and facts. Punishment can mean being barred from covering a topic that is close to the reporter’s identity, like Johnson was, or an implied threat of being fired. The dynamic is so crystalized that, instead of individually challenging The New York Times for their op-ed calling on the president to use force against civilians, Black New York Times employees and their allies responded as a collective on Twitter, all tweeting: “This puts Black New York Times staff in danger.” But even in the wake of massive protests, even as management at many legacy newspapers committed to better social media policies, and even as journalism has shifted to a mostly online workforce, there’s been a lack of movement in newsrooms to craft a social media policy that allows journalists of color to just do their jobs. “Since the events of January 2020 and the summer, there’s been zero further conversation,” said B, a social media producer at a large legacy newspaper. “It’s just a standstill right now.” Journalists and social media managers I spoke with, like B, did not want their names published out of concern for how their managers might react to them being candid or because press requests required approval from newsroom leadership. But all of them, all younger reporters of color, had extensive thoughts on how newsrooms are failing to craft good social media policies and move the conversation beyond humanizing reporters of color. While social media has become a driving force for digital readership, and therefore ad revenue or donors, many legacy newsrooms have barely pushed the envelope in changing their social media policies. The New York Times adopted a new policy in 2017, which makes the blanket statement: “Our journalists should be especially mindful of appearing to take sides on issues that The Times is seeking to cover objectively.” The Washington Post also updated its policy in 2017, with many of the same themes. R, who recently interned for a different large legacy newspaper, said that they received clear instructions from management when they started: “They asked us not to tweet about Black Lives Matter, but didn’t address the complexity of that issue.” R said it is problematic to frame supporting a human rights issue, like Black Lives Matter, similarly to taking an open political stance. R doesn’t believe any reporter should be explicitly partisan (“don’t tweet about ‘blue’ or ‘red’”), but they do believe it makes you a better reporter if you’re able to be empathetic to readers who are affected by human rights issues, like police violence. “At the end of the day, it makes me a better reporter,” R, who is non-Black, said of saying “Black Lives Matter.” “I’m being empathetic to a movement that’s affecting my Black brothers and sisters. So therefore it would help me connect to readers who identify with that. And two: [It] just makes me more of a human, because I don’t think that people of another race should be shot and killed by police for no reason. I think that makes me a better reporter.” Z, an audience engagement editor at a newer digital publication, said the false equivalencies and double standards in current social media policy are exacerbated by the fact that racist readers are more willing to flag tweets for newsroom management. “It’s always been easier for white reporters to get away with saying things like that is because they’re white,” she said. “People automatically assume they don’t have any ties to a community and they don’t have any reason to say that thing other than it’s a fact.” Z said that the current conversation is way behind the times, in that newsrooms are still trying to figure out how to humanize their own Black and brown reporters. Instead, she’s looking to the future and thinking about the ways in which newsrooms should be expanding their audience. “I don’t see why more newsrooms aren’t sending out tweets in native languages,” she said. “I think that there is a huge population of people on the internet that are not being properly served; readers and persons of the community that don’t have access or can’t understand tweets that are coming from newsrooms because they’re not accessible.” Ultimately, B said that the divide in newsrooms is clear: on one side, there’s management, which is often whiter and older; on the other is the younger journalists, who are often more diverse. She said that management believes that you can separate your humanity from your work and younger journalists do not (although some editors, like The New York Times Dean Baquet, do not believe “there is a big gap”). “It’s like two schools of thought. And they’re both clashing in really ugly, really ugly ways. And one of the schools of thought is almost in every leadership position in the newsroom.” Newsrooms, especially older institutions, need to move on from the conversation of whether or not these social media policies are racist: if journalists of color are saying that the current structure of social media policies are applied unevenly and are racist, then they are racist. If journalists and social media managers from around the newsroom, especially those who are most impacted by these policies are given space to craft these policies, then perhaps we’ll soon see the necessary changes. If B were in charge of social media, she said her changes across the board are easy to articulate: No more penalizing reporters for the experiences they bring to the table. Instead: “Be honest, be truthful, be transparent when you get things wrong and just don’t be a bad person online. It’s very simple. It’s very short.”

#### Systemic incentives to favor the accounts of police over victims means pro-police narratives will always be deemed objective

Mattar 20 [Pacinthe Mattar, Martin Wise Goodman Canadian Nieman Fellow at Harvard University 8-21-2020, "Objectivity Is a Privilege Afforded to White Journalists," Walrus, https://thewalrus.ca/objectivity-is-a-privilege-afforded-to-white-journalists/]/Kankee

I came out of my executive producer’s office with a look on my face that caught the attention of an older white male colleague, who asked me if I was okay. I told him what had happened. He spoke to the executive producer on my behalf. She relented. I’ve since faced several such roadblocks in my journalism career. Combined with the experiences of other racialized journalists, they represent a phenomenon I’ve come to think of as a deep crisis of credibility in Canadian media. There is the lack of trust toward the Black, Indigenous, and other racialized people whose stories we are supposed to cover as a reflection of the world we live in. Then there is the mistrust of the Black, Indigenous, and other racialized journalists who try to report on those stories. Our professionalism is questioned when we report on the communities we’re from, and the spectre of advocacy follows us in a way that it does not follow many of our white colleagues. There is a reckoning underway that has spared almost no industry, sparked by an alarming succession of killings of Black people in the US: Ahmaud Arbery, Breonna Taylor, George Floyd, and many more. The violence of those deaths, and the inescapable racism that underpinned them all, incited a tidal wave of anger and fatigue from Black people who had long been calling out the discrimination that they face in their daily lives. From academia to theatre, the beauty industry to major tech corporations, Black and other racialized employees are publicly coming forward and detailing how their organizations have perpetuated racism against them. Newsrooms in the US and Canada, for their part, have been forced to acknowledge that they have to do better: in who they hire, who they retain, who gets promoted, what they cover, and how they cover it. This moment has resurrected a question that’s haunted me since I returned from Baltimore: How can the media be trusted to report on what Black and other racialized people are facing when it doesn’t even believe them? IN MANY AMERICAN CITIES, the protests calling for justice following the killings of Black people like Ahmaud Arbery, George Floyd, and Breonna Taylor have been met with violent responses from police, who have tear-gassed, chased, shoved, beaten, and arrested protesters and journalists. In May, Omar Jimenez, a Black CNN reporter, was handcuffed and led away by police while the cameras rolled. Watching the recent police violence against protesters unfold reminded me of how my interview with the two men in Baltimore had ended. It was 10 p.m., meaning the city-wide curfew was now in effect, and we were standing just outside a subway station in the Penn North neighbourhood. Lonnie Moore, the young Black man who had first approached me, had just left. I was putting my recorder away when police came rushing into the block. They told Jarrod Jones and me we had to leave. We tried to enter a nearby subway station, but a police officer blocked the entrance. We tried to turn down a side street, but another officer told us we couldn’t go that way either. We tried every escape we could think of, but we were boxed in. Suddenly, one officer began charging at us, his baton out, swinging, shoving Jones and cursing at him. We ran away from him as fast as we could, my bag with my recording equipment bouncing clumsily behind me. None of this made it to air. I had made the rookie mistake of turning off my radio recorder as soon as the interview ended. But I probably would not have worked it into the documentary anyway; as a journalist, you want to avoid becoming part of the story. One of the core elements of journalism is for reporters to maintain a distance from those they cover, which is meant to provide a sense of objectivity. For many white journalists, that distance is built in to their very life experiences. But, for many other journalists, there is no distance between what happened to George Floyd and what could have happened to them. Distance is a luxury. When I got back to Toronto, I told my deskmates about my time in Baltimore in hushed tones. I felt at the time that to speak of it more openly would somehow implicate me, that my story could be seen through the lens of advocacy instead of hard-and-fast reporting. I also knew you never want to end up on the wrong side of police, especially as a racialized person, and leave it up to others to decide how your actions may have justified violence against you. In journalism, as in predominantly white societies at large, questioning police narratives is complicated. “The police play a very powerful role in defining what the nature and extent of crime is in our society,” says Julius Haag, a criminologist and sociology professor at the University of Toronto’s Mississauga campus. “Police also recognize that they have a powerful role in shaping public perceptions, and they use that ability within the media to help . . . legitimize their purpose and their responses.” A. Dwight Pettit, a Baltimore-based lawyer I interviewed for my documentary in 2015, told me something about why police accounts are rarely questioned by the media that stayed with me. Juries seem to have trouble confronting the violence in police-brutality cases, he said, because so often, people have grown up seeing police doing right by them and have trusted police with their safety. This is especially true for white people, who are less likely to be treated unfairly by police. Putting police on trial would be asking people to challenge their lifelong beliefs. Anthony N. Morgan, a racial-justice lawyer in Toronto, says this same dynamic plays out in Canada in both “obvious and indirect ways.” Racialized people can tell you about water cooler conversations they’ve had with white colleagues about racism they’ve experienced and witnessed, which “often end up in the ‘Did that really happen? What were they doing? Maybe we need to see more of the video?’ territory,” he says. “These kinds of frankly absurd ways of justifying and excusing murder or harm done to Black and Indigenous people play out in society more generally, and I think they play out in journalism too.” ON MAY 27, a twenty-nine-year-old Black Indigenous woman named Regis Korchinski-Paquet fell from a twenty-fourth floor balcony in Toronto while police were in her apartment, responding to the family’s call for help with her mental health crisis. Police were the only ones there during the fall, and questions about the moments before her death remain unanswered. The tragedy has also boosted calls from racialized journalists to challenge the media’s overreliance on police narratives. It wasn’t until the next day that media reports included any of her family members’ voices or began questioning the role of police in Korchinski-Paquet’s death. Not because the family didn’t want to talk to the media: the family’s social media posts are what had raised initial awareness about Korchinski-Paquet’s death. One journalist described arriving at the scene to talk to family members and seeing other reporters there. (This gap in the reporting may have stemmed from some family members’ initial social media posts, which effectively accused the police of killing Korchinski-Paquet and would have been impossible to independently verify at the time. The family’s lawyer later clarified their initial statements, saying they believed police actions may have played a role in Korchinski-Paquet’s death.) Instead, the very first news stories about Korchinski-Paquet’s death were based solely on a statement from the Special Investigations Unit (SIU), the civilian-oversight agency in Ontario that is automatically called to investigate circumstances involving police that have resulted in death, serious injury, or allegations of sexual assault. Some journalists asked their newsrooms and organizations to explain why early coverage excluded the family’s narrative. I know one journalist whose editor questioned her for reporting what the family had told her in the early hours. Korchinski-Paquet’s death is just the latest reminder of why some journalists have long been arguing that police versions of events—whether their own actions or the actions of those they police—should be subject to the same levels of scrutiny other powerful bodies garner, and that their accounts cannot be relied on as the only source. “The police are not, in and of themselves, objective observers of things,” said Wesley Lowery—who was part of a Washington Post team that won a Pulitzer Prize for its coverage of fatal shootings by police officers—in a Longform Podcast interview in June. “They are political and government entities who are the literal characters in the story.” Nor do police watchdogs offer a sufficient counternarrative. The SIU has long been plagued with concerns about its power and credibility. Former Ontario ombudsman André Marin released a 2008 report stating that Ontario’s system of police oversight has failed to live up to its promise due to a “complacent” culture and a lack of rigour in ensuring police follow the rules. More recently, the limited powers of the SIU have been made clear in the aftermath of the fatal shooting of D’Andre Campbell, a twenty-six-year-old Black man with schizophrenia, who was shot by a Peel police officer in April after he called the police for help. So far, that officer has refused to be interviewed by the SIU and has not submitted any notes to the police watchdog—nor can the officer be legally compelled to do so. In 2018, I would see these obstacles play out in my own reporting. I had helped produce a series of live town halls on racism across the country. The Vancouver edition focused on racism in health care, with one conversation centring the experiences of two Indigenous nurses. Diane Lingren, provincial chair for the Indigenous leadership caucus of the BC Nurses’ Union, recounted how she often saw non-Indigenous people who appeared to be intoxicated be “told to settle down, and then they get a cab ride” to an overnight shelter. With Indigenous people, she said, “I see the RCMP called. . . . I see them handcuff their ankles to their wrists so they can’t walk. . . . I see those people get taken away in the police cars.” The RCMP denied that account; their response included a statement about their practice of a “bias free policing policy.” In response to that statement, the executive producer on the series wanted to cut the Indigenous nurses’ anecdotes from the show entirely. (The producer could not be reached for confirmation.) My co-producers and I fought to retain them, to present them along with the RCMP’s statement. This shouldn’t have been a battle: our very role as journalists is to present all the facts, fairly, with context. But, in many newsrooms, police narratives carry enough weight to effectively negate, silence, and disappear the experiences of racialized people. That it’s racialized journalists who have had to challenge police narratives and counter this tradition is an immense burden—and it’s risky. “The views and inclinations of whiteness are accepted as the objective neutral,” Wesley Lowery wrote in a June op-ed in the New York Times. “When Black and Brown reporters and editors challenge those conventions, it’s not uncommon for them to be pushed out, reprimanded, or robbed of new opportunities.” That last point rings entirely too true for me. IN JULY 2017, I was guest producing on a weekly show for a brief summer stint. One story I produced was an interview with Ahmed Shihab-Eldin, an Emmy-nominated journalist who was in Jerusalem covering protests that had sprung up at the al-Aqsa mosque. Worshippers were praying outside the mosque, instead of inside, in an act of civil disobedience against the installation of metal detectors following the killing of two Israeli police officers by Israeli Arab attackers. In the interview, he explained the source of the tension, what the front lines of the protests looked like, and also touched on press freedom—Shihab-Eldin himself had been stopped, questioned, and jostled by Israeli security forces while he was reporting. From the moment I pitched having him on the show, the acting senior producer showed keen interest in the story. This enthusiasm made what happened next all the more confounding. We recorded the interview on a Friday. Shortly afterward, that same senior producer told me the segment was being pulled from the show and that she would not have the time to explain why. She had consulted a director, and together they had ultimately decided to kill it. The story never went to air. I spent a week trying to get an explanation. It wasn’t lost on me that the interview would have included criticism of Israeli security forces and that I was coming upon the intersection of two issues here: the media’s aversion to criticism of law enforcement coupled with its deeply ingrained reluctance to wade into the conversation about Israel and Palestine, especially if this means critiquing the Israeli government’s policies or actions. Bias or one-sidedness shouldn’t have been a concern: I had planned on incorporating the Israel Defense Force press office’s response into the story. The story couldn’t, and wouldn’t, have run without it. In the end, the director, who had been the one to make the final call to not run the interview, wrote an apologetic email to Shihab-Eldin and me, which read, in part: “Our hope was that further work on our end would allow us to give our audiences more context so that they would not leave your interview with unanswered questions. . . . We ran into unexpected difficulties in doing so.” I had heard nothing about the story needing more context, or about questions that the director and senior producer felt were unanswered, before the decision was made. Nor did I have a clear understanding of what these “unexpected difficulties” were. (The senior producer and director say they felt the interview was too opinionated.) For his part, Shihab-Eldin responded to the senior director with: “Unfortunately I’m all too familiar with ‘unexpected difficulties’.” It was the first and only time in my ten years of journalism that a story was pulled—let alone without an open editorial discussion or transparency. And I did not realize just how much this experience would mark me and my future in this profession. TO BE A JOURNALIST in any media organization or newsroom is to navigate the crush of the daily news cycle; the relentlessness of deadlines; and the pressure, care, and complexity it takes to craft a story well. To be a racialized journalist is to navigate that role while also walking a tightrope: being a professional journalist and also bringing forward the stories that are perhaps not on the radar of the average newsroom but are close to home for many of us. And it takes a toll. The stories I’ve recounted are the ones that stood out the most over my ten years in journalism. There are countless other, smaller fights that took place. When asked to comment for this article, Chuck Thompson, head of public affairs at the CBC, wrote in an email: “We are actively reviewing our journalistic standards to ensure we are interpreting policies and practices through a more inclusive lens. . . . It is just one of several recommitments we have made including hiring more Black, Indigenous and people of colour within our teams but also into leadership positions. We can point to a half dozen recent hires and promotions that show that pledge to do better, is both authentic and genuine.” His email also referenced existing initiatives, such as the CBC’s Developing Emerging Leaders Program, “which identifies and trains people of colour, as well as Black and Indigenous people, who are indeed taking their rightful place at our leadership tables.” (I am a graduate of the inaugural cohort of that program.) Diversity is a feel-good term that is often held up as a goal and priority by industries from media to law to academia and beyond. It’s supposed to be the antidote to the experiences I’ve described and a signal that employers value and seek a range of perspectives, backgrounds, world views, and experiences that run the spectrum of age, gender, socioeconomic status, sexual orientation, race, and ability. If that feels like a massive umbrella of goals and classifications, that’s because it is. Just take a look at any Canadian newsroom, even in Toronto, a city that is over 50 percent nonwhite. As a starting point, our newsrooms do not reflect the world outside of them—which does not bode well for accurately representing the breadth of stories playing out every day. As a result, from the second so many racialized journalists walk into news organizations, we are still often the Only Ones in the Room. And, where there are racialized journalists at all, there are even fewer Black and Indigenous journalists. As you go higher up the ladder of these organizations, it’s not long before Black, Indigenous, and racialized journalists aren’t in the room at all. Meanwhile, news organizations regularly see our mere presence in their newsrooms as successful examples of so-called diversity even if our roles are overwhelmingly junior and precarious. This setup often ends up placing the responsibility on the Only Ones in the Room to guarantee a spectrum of experiences and stories in news coverage and to point out where coverage misses the mark, including when there is a story involving the actions of police. The responsibility is heavy. It’s a dynamic that Asmaa Malik, a professor at Ryerson University’s school of journalism, sees playing out regularly. Her research focuses on race and Canadian media as well as on the role of diversity in news innovation. “There’s an idea in many Canadian newsrooms that, if you have one person who checks the box, then you’re covered,” she says. “So the burden that puts on individual journalists is huge.” Everyone who’s been the Only One in the Room knows what it’s like. The silence that falls when a story about racism is pitched. The awkward seat shifting. The averted stares. We’ve felt it, and internalized it, and expected it. We know that there is often an unspoken higher burden of proof for these stories than for others, a problem that has long been exacerbated by the fact that race-based data is rarely collected in policing, health care, and other fields. Yet it is on us to fill this void and “prove” the existence of racism. As a result, we overprepare those pitches. We anticipate your questions. We get used to having the lives of our friends and families and the people who look like them discounted, played devil’s advocate to, intellectualized from a sanitized distance. A long-time producer at a major news organization, a Black woman whose name I agreed not to use because of fear for her job security, bristled at the suggestion that to cover stories that hit close to home, including anti-Black racism, police brutality, and the Black Lives Matter movement, is to somehow engage in advocacy. “There seems to be the assumption that we cannot coexist with the journalistic standards of being fair and balanced and impartial. Really, what we are fighting for, what we’ve always been fighting for, is just the truth.” In the meantime, when race and racism feature heavily in headlines, we are relied on to become sensitivity readers for our organizations, suddenly asked if things can be run past us or whether the show is hitting the right marks or whether we can connect other journalists to racialized communities and sources that are harder to reach. “This is in addition to the regular reporting that we do day-to-day. There’s just a level of work that goes unseen and unacknowledged,” the producer told me. “And the future of our institutions depends on us doing the work.” Under the banner of diversity, we are told to bring ourselves and our perspectives. But, if we bring too much of them, we are marked and kept back.

#### No link turns - only advocacy-based journalism can solve systemic racism

Liederman 21 [Mack Liederman, reporter with a master’s degree in journalism from Northwestern, 02-01-2021, "Let’s rethink objectivity," Redacted Magazine, https://redactedmagazine.com/2021/02/01/lets-rethink-objectivity/]/Kankee

In an op-ed that gained traction this summer in The New York Times, “A Reckoning Over Objectivity, Led by Black Journalists,” two-time Pulitzer Prize winning journalist Wesley Lowery attempts to use the momentum of Black Lives Matter to debunk the myth of objectivity. For Lowery, the stakes of objectivity are heavy. In fact, the Golden Rule may be better labeled as Thinly Veiled Racism. Lowery writes in summary, “The views and inclinations of whiteness are accepted as the objective neutral.” Look no further than the names spilling down any masthead (even this one), or to the TV newsrooms of The Wire, Spotlight, The Post and even Anchorman, and an essential reality becomes unavoidable: Journalism has been owned, operated, curated and defined by white people. The dogma of “quality journalism” has rested on the idea that the truth can stem only from objectivity, one that is defined by white reporters, their white editors, and their white bosses. The ones editing pages in red ink, assigning articles, hiring writers and framing the larger media narratives are the ones that ultimately get to decide what is and what is not objective journalism. While objectivity may be a powerful method of reporting, spurring journalists to strive toward factual accuracy, it is not an achievable goal. There is nothing objective about the subliminal and not-so-subliminal biases that seep into any given piece of journalism. How we interpret objectivity is inherently opinionated. And what’s objective about an opinion? Even your wiry professor, your wholesome English teacher and your loud gum-chewing colleague would know the clear answer to that one. Yet it is the sacred myth of objectivity that has long left it unquestioned, untouched and under-scrutinized in predominantly white spaces. The promises of objective reporting allow for white journalists to cover Black communities from a safe distance, supplying a baseline of journalistic credibility where none should be assumed. The consequence of white-framed objectivity has been an underserving of coverage on Black issues and a general silencing of reporters that dare to challenge the conventions of their profession. Objectivity is not an ideal — it’s a racial issue. Lowery chooses to look forward. While America can never truly uproot itself from the enduring appeal, familiarity and continuously consequential history of white supremacy, journalism stands in a strong position to challenge the status quo. The democratization of information through the internet has allowed for more Black voices to be heard and more Black stories to be told. The changing demographics and increasingly diverse readerships of major publications have leveraged its most powerful galvanizing agent — C.R.E.A.M. (Cash Rules Everything Around Me) — toward hiring and promoting the work of non-white staff. These favorable trends are not nearly enough. Our collective reckoning on race calls for a reckoning on our media — the total dismantlement of objectivity. Redacted Magazine hopes to play its (albeit small) part in a new direction forward. As pre-professional writers and editors, we believe that we have the runway and the independence (from potential future employers) to build a platform that begins with a socially equitable ethos. And when we fall short, we ask to be called out. This is how we become not objective journalists — but fair journalists. Let’s ditch the Golden Rule and forget objectivity. That’s the only way we can begin to tell the truth.

## Case

No solvency- media literacy is abut educatoiin

Free press cant rlly educate

No nationality key – media literacy not key. Big gap b etween national securiyty threats by polciymakers and local schools

1ac evience says they arent listening to cliamtre change and vaccines anyway – why would education solve

A free press cannot fund an institution, they say they can but like what lol

It makes on sennse its extra t at best or j doenst solve

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#### Quantum vacuum mining destroys the universe- it’s feasible and inevitable

Folger 8 – Tim Folger, Contributing Editor at Discover Magazine, Writer for National Geographic, MA in Journalism from New York University, BA in Physics from UC Santa Cruz, “Nothingness of Space Could Illuminate the Theory of Everything”, Discover Magazine, 7-18, http://discovermagazine.com/2008/aug/18-nothingness-of-space-theory-of-everything

When the next revolution rocks physics, chances are it will be about nothing—the vacuum, that endless infinite void. In a discipline where the stretching of time and the warping of space are routine working assumptions, the vacuum remains a sort of cosmic koan. And as in the rest of physics, its nature has turned out to be mind-bendingly weird: Empty space is not really empty because nothing contains something, seething with energy and particles that flit into and out of existence. Physicists have known that much for decades, ever since the birth of quantum mechanics. But only in the last 10 years has the vacuum taken center stage as a font of confounding mysteries like the nature of dark energy and matter; only recently has the void turned into a tantalizing beacon for cranks. As one blond celebrity heiress and embodiment of emptiness might say, nothing is hot.

To investigate the mysteries of the void, some physicists are using the biggest scientific instrument ever built—the just-completed Large Hadron Collider, a huge particle accelerator straddling the French-Swiss border. Others are designing tabletop experiments to see if they can plumb the vacuum for ways to power strange new nanotech devices. “The vacuum is one of the places where our knowledge fizzles out and we’re left with all sorts of crazy-sounding ideas,” says John Baez, a mathematical physicist at the University of California at Riverside. Whether in the visionary search for the engine of cosmic expansion or the near-fruitless quest for perpetual free energy, the vacuum is where it’s happening. By mining the vacuum’s riches, a true theory of everything may yet emerge.

Empty space wasn’t always so mystifying. Until the 1920s physicists viewed the vacuum much as the rest of us still do: as a featureless nothingness, a true void. That all changed with the birth of quantum mechanics. According to that theory, the space around a particle is filled with countless “virtual” particles rapidly bursting into and out of existence like an invisible fireworks display.

Those virtual quantum particles are more than a theoretical abstraction. Sixty years ago a Dutch physicist named Hendrik Casimir suggested a simple experiment to show that virtual particles can move objects in the real world. What would happen, he asked, to two metal plates placed very close together in a complete vacuum? In the days before quantum mechanics, physicists would have said that the plates would just sit there. But Casimir realized that the net pressure of all the virtual particles—the stuff of empty space—outside the plates should exert a minuscule force, a nudge from nothing that would push the plates together.

Physicists tried for decades to measure the Casimir force with great precision, but it wasn’t until 1997 that technology caught up with theory. In that year, physicist Steve Lamoreaux, now at Yale, managed to detect the feeble Casimir force on two small surfaces separated by a few thousandths of a millimeter. Its strength was about equal to the force that would be exerted against the palm of one’s hand by the weight of a single red blood cell.

At first most physicists regarded the Casimir force as a quantum oddity, something of no practical value. Now that has changed: Forward thinkers see it as an important energizer for the tiniest of machines, devices on the nano scale, and a few labs are working on ways to use the force to defy the conventional limitations of mechanical design. Federico Capasso, a physicist at Harvard, leads a small team that is trying to create a repulsive Casimir force by tinkering with the shapes of plates or with the coatings used to cover them. His entire set of experiments fits on a desktop, and the objects he works with are so small that most of them cannot be seen without a microscope.

“Once you have a repulsive force between two plates, you should be able to eliminate static friction,” Capasso says. That could lead to a host of useful applications, including tiny frictionless bearings or nanogears that spin without touching. “But the experiments are enormously difficult, so I cannot tell you when and how.”

For all its strangeness, the Casimir force may be the one property of empty space that does not baffle today’s physicists. It is garden-variety quantum mechanics, weird but not unexpected. The same can’t be said about dark energy, a truly astonishing discovery made by astronomers a decade ago while observing distant exploding stars. The explosions revealed a universe expanding at an ever-faster rate, a finding at odds with previous expectations that the expansion of the cosmos should be slowing down, braked by the collective gravitational pull of all the matter out there. Some unknown form of energy—physicists call it dark energy simply for lack of a more descriptive term—appears to be built into the very fabric of space, countering the gravitational pull of matter and pushing everything in the universe apart. Some theorists speculate that dark energy might cause a runaway expansion of the universe, resulting in a so-called Big Rip some 50 billion years from now that would tear the cosmos to pieces, shredding even atoms.

The observations have allowed physicists to estimate the quantity of dark energy by deducing the force needed to produce the accelerating effect. The result is a minuscule amount of energy for every cubic meter of vacuum. Since most of the cosmos consists of empty space, though, that little bit adds up, and the total amount of dark energy completely dominates the dynamics of the universe.

With the discovery of dark energy came difficult questions: What is this energy, and where does it come from? Physicists simply do not know. According to quantum mechanics, the energy of empty space comes from the virtual particles that dwell there. But when physicists use the equations of quantum theory to calculate the amount of that virtual energy, they get a ridiculously huge number—about 120 orders of magnitude too large. That much energy would literally blow the universe apart: Objects a few inches from us would be carried away to astronomical distances; the universe would literally double in size every 10-43 second, and it would keep doubling at that rate until all the vacuum energy was gone. This may be the most colossal gap between observation and theory in the history of science. And it means that physicists are missing something fundamental about the way the universe works.

“We’ve made a prediction on the basis of our best theories, and it is wrong, wildly wrong,” says Sean Carroll, a theoretical physicist at the California Institute of Technology. “That means we don’t just tweak a parameter here and there; we really have to think deeply about what our theories are.”

Even if no one knows where the energy of empty space comes from or why it has the value it does, there is now no doubt that it exists. And if there is energy to be had, there is inevitably somebody out there thinking of how to exploit it. The notion of limitless energy from empty space has inspired legions

of wannabe physicists who dream of developing the ultimate perpetual-motion device, a machine that would solve the world’s energy problems forever. A quick Internet search for the words free energy and vacuum turns up pages and pages of schemes for tapping the vacuum’s energy. I ask John Baez if such efforts are as hopeless as previous perpetual-motion machines. Are they equally crazy and doomed to failure?

“Perhaps not as doomed as trying to prove the world is flat,” Baez says. “One thing I can say is that I sure hope it doesn’t work, because if you could extract energy from the vacuum, it would mean that the vacuum is not stable. For normal physicists,” he adds with a laugh, “the definition of the vacuum is that it’s the lowest-energy situation possible—it has less energy than anything else.” In short, Baez says, while we may be able to get energy from the vacuum, success “would mean the universe is far more unstable than we ever dreamed.”

The reasoning goes like this: If the vacuum is not at the lowest energy state possible, then at some point in the future, the vacuum could fall to a lower state, pulsing out energy that would threaten the very structure of the cosmos. If some clever engineer were ever to extract energy from the vacuum, it could set off a chain reaction that would spread at the speed of light and destroy the universe. Free energy, yes, but not what the inventors had in mind.

#### Inflation of a baby universe channels phantom energy, which destroys our universe

Zeeya Merali, 3/27/2008 (Writer for New Scientist, “Could ‘bubble’ universes threaten human existence?”, https://www.newscientist.com/article/mg19726493-900-could-bubble-universes-threaten-human-existence/)

IT IS the ultimate neighbour from hell: a rogue “bubble” universe that could rip into our world at any time and eat us and everything else in a flash. Eduardo Guendelman at Ben Gurion University in Beer-Sheva, Israel and Nobuyuki Sakai at Yamagata University in Japan discovered that our universe might face this gruesome end as they were investigating how patches of space-time expand. Alternatively, our universe could be the one feasting on its neighbours right now. According to the standard model of cosmology, our universe underwent a phase of rapid expansion known as inflation just after the big bang. In theory, inflation could still be happening to pockets of space-time, blowing them up to create new universes disconnected from ours. However, nobody knows exactly what would trigger this inflation, says Guendelman. He and Sakai wanted to see if bubbles of space-time could inflate into pocket universes without having to be kick-started by anything as dramatic as a big bang. They found that this is possible, provided the bubbles contain a weird form of repulsive “phantom energy”. Some physicists think phantom energy is similar to dark energy, and both are posited to explain the acceleration of the universe’s expansion. But phantom energy is much more powerful, and if it really is behind the acceleration, it will create runaway expansion that will eventually rip our universe apart (New Scientist, 8 March 2003, p 14). Guendelman and Sakai’s calculations show that small bubbles of phantom energy would start to “breathe”, gently expanding and contracting as the phantom energy inside battles against the bubble’s wall, before spontaneously expanding into a full-blown universe. The problem is that the expansion can play out in two ways, depending on the resistance of the wall. Ideally, the bubble would disconnect from its surroundings, says Guendelman. This "good" pocket universe would look like a black hole from the outside, but inside it would be creating its own space-time - effectively a new universe. In contrast, "rogue" bubbles would expand uncontrollably into the space-time around them, and we probably wouldn't see one before it destroyed us because it would expand at the speed of light. The researchers have submitted their work to Physical Review D. We probably wouldn't see one of these rogue bubbles before it destroyed us because it would expand at the speed of light.

#### ELI experiments destroy all life

(Duncan Geere 11/4/11 (Science and Technology Journalist for Wired “Ultrapowerful laser planned to tear apart fabric of space,” http://www.wired.co.uk/article/laser-spacetime)

A team is planning to build an enormously powerful laser that could rip apart the fabric of space. The Extreme Light Infrastructure Ultra High-Field laser will be 200 times more powerful than the most powerful lasers that currently exist on the planet, says John Collider, a member of the team and the director of the Central Laser Facility at the Rutherford Appleton Laboratory in Didcot. "At this kind of intensity we start to get into unexplored territory, as it is an area of physics that we have never been before," he told the Telegraph. The aim is to boil a vacuum. Vacuums are normally thought of as empty space, but physicists believe they actually contain tiny particles that pop in and out of existence, so fast that it's difficult to prove they exist. By focusing the ELI Ultra-High-Field laser on an area of space, the team believes that the fabric of the vacuum can be pulled apart, revealing these particles for the first time. READ NEXT CERN's charming new particle discovery could open a 'new frontier' in physics CERN's charming new particle discovery could open a 'new frontier' in physics By ABIGAIL BEALL The laser will be made up of 10 beams, each providing 200 petawatts of power for less than a trillionth of a second.

#### Multiple countries are investing billions and they’re ripe for theft

Jeff **Daniels**, 3-17-20**17**, “Mini-nukes and mosquito-like robot weapons being primed for future warfare,” CNBC, <https://www.cnbc.com/2017/03/17/mini-nukes-and-inspect-bot-weapons-being-primed-for-future-warfare.html>

Several countries are developing nanoweapons that could unleash attacks using mini-nuclear bombs and insect-like lethal robots. While it may be the stuff of science fiction today, the advancement of nanotechnology in the coming years will make it a bigger threat to humanity than conventional nuclear weapons, according to an expert. The U.S., Russia and China are believed to be investing billions on nanoweapons research. “Nanobots are the real concern about wiping out humanity because they can be weapons of mass destruction,” said Louis Del Monte, a Minnesota-based physicist and futurist. He’s the author of a just released book entitled “Nanoweapons: A Growing Threat To Humanity.” One unsettling prediction Del Monte’s made is that terrorists could get their hands on nanoweapons as early as the late 2020s through black market sources.

#### Isolated civilizations survive nuclear war, but industry is destroyed

Beckstead 15. Nick Beckstead, Professor at Oxford University, Future of Humanity Institute, (2015), “How much could refuges help us recover from a global catastrophe?,” https://sci-hub.se/https://www.sciencedirect.com/science/article/abs/pii/S0016328714001888 //MK

*[‘isolated peoples’ refers to populations unconnected from global society, such as Amazonian tribes]*

A global catastrophe could disrupt global food production for two reasons. First, as noted a few times above, some global catastrophes—such as supervolcanic eruptions, **nuclear wars**, and asteroid collisions—**might** put enough dust in the atmosphere to interfere with photosynthesis and **disrupt global food production.** Second, an initial catastrophe could kill enough people and do enough damage to infrastructure to shut down global food production. Conceivably, stocking refuges with a very large food supply or method of making food—over and above what is necessary to survive the initial catastrophe—might help a small group to survive and recover if a global catastrophe disrupts global food production. A first issue is that a global food crisis  **would not** necessarily **result in extinction**. Extinction may even be extremely unlikely in such cases. The closest historical precedent to these crises was the supervolcanic Toba eruption that took places about 74,000 years ago. Many eruptions of this kind have taken place in the last tens of millions of years, but they did not extinguish our pre-human ancestors (Shulman, 2012a). Humans may now be in many ways worse prepared for such a crisis, with a much larger percentage of the population without hunting and agricultural skills, but we have many advantages in terms of technology and coordination. **The 100+ isolated peoples would be** relatively **similar to** pre-human **ancestors who survived supervolcanic eruptions** in the past, though—as noted above—they may have a notable disadvantage in reestablishing an advanced industrial civilization. Second, in any of the global food crisis scenarios noted above, **there would be** a **substantial** amount of remaining **food reserves** in the form of grain stockpiles, livestock, fisheries, foods stored at retailers and private homes, and wild land animals that could be hunted (Shulman, 2012b). Therefore, if a refuge helps humanity survive a global food crisis, the mechanism could not be conceived of as ‘‘adding enough to the global food stock to help with survival.’’ More plausibly, there could be a scenario where there is not enough food for everyone to survive the global food crisis, but there would be enough food for some people to survive if they got a disproportionate share of the food. However, conflict (e.g., as in McCarthy’s postapocalyptic novel The Road) and/or egalitarian pressures could prevent a distribution that would allow at least some of the population to survive the crisis. Conceivably, if the refuge were sufficiently secret, isolated, and well-stocked, it might be the only place where these pressures could be abated, making the people in refuges the sole survivors of the global food crisis. While conceivable and perhaps plausible, refuges’ unique success in this kind of case is not automatic and perhaps unlikely. If some small, well-armed group seizes some grain elevators, refuses to share their bounty, and successfully defends what they have claimed, they could also survive the global food crisis. Alternatively, a single survivalist community might be isolated and well-defended enough to achieve the same purpose. This potential use case may deserve more detailed analysis. As noted above, even if some initial catastrophe failed to kill everyone, it could lead to a collapse of the modern world order. This type of scenario might accompany a global food crisis, or could arise independently in cases of an unprecedentedly bad pandemic or global war that decimates the population. Conceivably, such a collapse to lead to extinction or a failure to recover industrial civilization. In this kind of scenario, people in refuges are not the sole survivors of our hypothetical global catastrophe. Instead, **it seems extremely likely that, some non-negligible fraction of civilization** (greater than 1 in 10,000, say) **would survive. But a greatly reduced global population would be unable to sustain many aspects of modern industry**, manufacturing, trade, and agricultural production, and may be forced to retrace a substantial part of past **technological development** (see Hanson (2008) quotation below).

#### Civil defense investments prevent nuclear war from causing extinction under any reasonable estimates.

Charles L. Sanders 17. Scientists for Accurate Radiation Information, PhD in radiobiology, professor in nuclear engineering at Washington State University and the Korea Advanced Institute of Science and Technology. 2017. “Radiological Weapons.” Radiobiology and Radiation Hormesis, Springer, Cham, pp. 13–44. link.springer.com, doi:10.1007/978-3-319-56372-5\_2.

2.5 Survival of Nuclear War The penetrating nature of γ-rays requires substantial shielding with denser materials in high-dose fallout regions. No lethality is expected from a radiation dose rate of 100 mGy/h. An initial dose rate from fallout of 1.0 Gy/h would not be lethal if minimum protection is taken (e.g., staying indoors). An initial dose rate of 10 Gy/h is lethal unless substantially shielded. A shelter providing a protection factor of 100 would suffice. A dose rate of 100 Gy/h would be lethal unless in the best of radiation shelters that give a protection factor of ≥500. However, the area downwind from a nuclear detonation with these high-dose rates would be limited. To protect yourself from fallout, it is essential to find shelter. The dose protection factor of a shelter is the protection afforded someone inside the shelter from radiation originating from the outside. For example, a dose protection factor of 5 means that the radiation level inside the shelter is five times less than the radiation level outside the shelter at the surface of the ground. Dose protection factors vary widely according to building construction, floor level in a multistory building, and proximity to other buildings. A dose protection factor of 5 can be assumed for most woodframe buildings. Most basements provide protection factors of about 50 in at least one area. Building a simple 6-foot trench shelter in your backyard covered with a few feet of dirt on a door would provide protection from thermal and blast effects and a protection factor of 500 from radiation fallout (Table 2.4). Provision of shelters that can withstand 100 psi blast waves, such as subway and utility tunnels, could save nearly 70% of the American urban population from a 9000-MT attack. US ICBM silos are built to withstand up to 2000 psi [60]. Americans are dreadfully ignorant on the subject of civil defense against nuclear war. Americans don’t want to talk about shelters. Most who take shelters seriously are considered on the lunatic survivalist fringe. The current US rudimentary fallout shelter system can only protect a tiny fraction of the population. There are probably less than one in a 100 Americans who would know what to do in the case of nuclear war and even fewer with any contingency plans. The civil defense system should, instead, provide stockpiles of food, water, medical supplies, radiological instruments, and shelters in addition to warning systems, emergency operation and [[TABLE 2.4 OMITTED]] communication systems, and a trained group of radiological monitors and shelter managers. There is a need for real-time radiation measurements in warning the public to seek shelter and prevent panic [61]. Shelters and a warning system providing sufficient time to go to a shelter are the most important elements of civil defense.