We should not separate out environmental issues, but the current approach to plastic pollution can be a distraction from meaningful action. A response to Avery-Gomm et al.

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Highlights:

- there is consensus on the relative threat of ocean plastic
- debate exists over behavioural and political responses to plastic pollution
- recent evidence suggests plastic is still a distraction from other issues

Abstract:

We agree with Avery-Gomm et al. that we should not separate out environmental issues. We also agree with them over the relative threat of plastic to our oceans. However, recent evidence on the 'spillover effect' of pro-environmental behaviours and on public attitudes to threats to areas such as the Great Barrier Reef suggest common consumerist and political approaches to tackle plastic pollution can cause a distraction from issues caused by climate change and biodiversity loss. We reiterate that we need political changes to address overconsumption in order to make real progress on all environmental issues.

Since we initially wrote our article [1], the global environmental landscape has changed considerably. Extinction Rebellion's civil disobedience approach, and Greta Thunburg's youth strikes have forced tackling climate change back up the environmental agenda. Recent reports highlighting the loss of biodiversity have also made the news [2], and solely in terms of media coverage, it may seem that the previous dominance of plastic as an environmental threat is in a distinct third place. However, we do still have concerns about how plastic is causing, and being used as, a distraction from other environment issues, which we re-emphasise in this short response to Avery-Gomm et al. [3].

In our initial article, we acknowledged that marine plastic pollution was an important issue [1]. We are in agreement with Avery-Gomm et al. that plastic is an important threat, but not as important as climate change and biodiversity loss [3]. We would also say that additional resources for scientific research and conservation for emerging threats such as plastic pollution are good. Our initial article never implied that funding for climate change research and mitigation had dropped due to funding for plastic pollution.

However, we still argue plastic is a distraction from other environmental concerns, for two key reasons. Firstly, in our initial article we suggested that simple, consumer decisions to avoid plastic may build complacency in people to take more radical environmental action, rather than these decisions providing a gateway to address other environmental issues, and as correctly pointed out by Avery-Gomm et al. we provided little evidence to support this at the time [1]. Secondly, we

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argued that governments used weak policy to combat plastic pollution to be seen to be acting in environmentally beneficial ways, while neglecting issues such as carbon reduction policies, from which plastic pollution action serves as a distraction.

A recent meta-analysis on the 'spillover effect' of pro-environmental behaviours provides evidence to address the first of these points [4]. The study found that engagement in one behaviour had only weak effects on engagement in any others. While involvement in one behaviour tended to increase people's intention to engage in a second, in practice, engagement in one proenvironmental behaviour had a slightly negative relationship with actually participating in a second environmental behaviour, or in terms of supporting policy for a second behaviour. Furthermore, the analysis found that spill-over to a second pro-environmental behaviour was most common if the behaviours were similar [4]. Hence, not taking a plastic straw when buying a drink from a fast food outlet is a considerably different behaviour than deciding not to fly to holiday destinations, or even supporting policy to reduce climate change or biodiversity loss. The potential for addressing plastic pollution to act as a gateway to taking more ambitious measures to address more challenging environmental issues therefore remains uncertain, and we remain concerned at the risk of complacency that could be engendered by taking modest actions to address plastic pollution. As long as people are criticising airlines on social media about single-use plastics in airport lounges and on planes, or congratulating themselves for having their in-flight coffee in a reusable beaker they carried on to the flight, despite the fact that carbon emissions from their flight will be orders of magnitude greater than any plastic pollution generated or avoided, we shall remain concerned.

Government complacency and inaction is harder to address, although as we point out in our initial article, the UK's 25 year environmental plan was launched with the key headline of stopping the use of 'avoidable' plastic waste, in 25 years [5], which we do not see as an ambitious target. In a recent survey, communities living near the Great Barrier Reef (GBR) rated plastic pollution on beaches as their major environmental concern, above that of the current state of the coral reefs – also on their doorstep [6]. Indeed, the newly appointed special envoy for the Great Barrier Reef has 'declared war' on plastic pollution of this iconic marine park, citing the inspiration of an Australian school child's campaign against single-use plastics, whilst criticising Greta Thornberg's campaign to promote action to address climate change as being alarmist, i.e. "frightening the living Jesus out of kids" to recruit them to school strikes [7]. This is despite growing evidence that climate change represents a critical threat to the Great Barrier Reef [8], with no evidence that plastic pollution poses a significant threat to the area. Whilst we are not arguing that this is necessarily representative of other national contexts, it does serve as a stark illustration of how the convenient distraction offered by being seen to be prioritising plastic pollution can be used for political purposes to displace concerns from other more pressing but also more challenging to address issues, such as climate change.

While we agree with Avery-Gomm et al. that we should not separate out environmental issues, as we also indicated in our initial article, plastic pollution, biodiversity loss and climate change all have a common cause – overconsumption. However, we need to be aware of the framing of environmental issues by politicians and the media, and of the dominant neo-liberal response to pressure individuals to solve these problems through market-based mechanisms, which as we discuss in our initial article, usually fail to achieve these aims.

While it would certainly be wrong to suggest that people engaged in ocean plastic research, conservation actions or even the public involved in reducing single use plastic consumption are in

any way wrong and wasting their time, it is important to acknowledge the distraction caused by what can be relatively ineffective environmental actions, and create a debate around the best way forward for policy to protect the marine environment. We remain concerned about plastic pollution, but also about the risk that addressing this will provide a convenient distraction to addressing the more critical systemic threats of climate change and biodiversity loss, particularly in political arenas.

References:

- [1] Stafford R., Jones P.J.S. 2019. Viewpoint Ocean plastic pollution: a convenient but distracting truth? Marine Policy. 103, 187-191.
- [2] IPBES 2019. Global Assessment: summary for policy makers. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Bonn. https://www.ipbes.net/news/ipbes-global-assessment-summary-policymakers-pdf
- [3] Avery-Gomm S., Walker T.R., Mallory M.L., Provencher J.F. in press. There is nothing convenient about plastic pollution. Rejoinder to Stafford and Jones "Viewpoint Ocean plastic pollution: A convenient but distracting truth?" Marine Policy
- [4] Maki A., Carrico A.R., Raimi K.T., Truelove H.B., Araujo B., Yeung K.L. 2019. Meta-analysis of proenvironmental behaviour spillover. Nature Sustainability. 2, 307–315. https://doi.org/10.1038/s41893-019-0263-9
- [5] DEFRA, 2018. A Green Future: Our 25 Year Plan to Improve the Environment, Department for Environment, Fisheries and Rural Affairs, London. https://www.gov.uk/government/publications/25-year-environment-plan.
- [6] Marshall N.A., Dunstanc P., Perta P., Tiaultde L. 2019. How people value different ecosystems within the Great Barrier Reef. Journal of Environmental Management. 243, 39-44. https://doi.org/10.1016/j.jenvman.2019.05.024
- [7] https://www.theguardian.com/environment/2019/may/28/warren-entsch-declares-war-on-plastic-in-new-great-barrier-reef-envoy-role
- [8] Hughes T.P., Kerry J.T., BairdA.H., Connolly S.R., Chase T.J., Dietzel A., Hill T., Hoey A.S., Hoogenboom M.O., Jacobson M., Kerswell A., Madin J.S., Mieog A., Paley A.S., Pratchett, M.S., Torda G., Woods R.M. (2019) Global warming impairs stock-recruitment dynamics of corals. Nature 568, 387–390. https://doi.org/10.1038/s41586-019-1081-y