Microfibres and the Environment

Professor Richard Thompson

02

July 2024

Summary of discussion

Richard Blackburn (University of Leeds) kicked off the discussion by observing that, of the fibres that Richard Thompson's team had observed in the English Channel one of the highest fractions was viscose, asking:

"***Would most people think of viscose as a synthetic?***".

R. Thompson's research shows that although plastic is a large contributor to marine pollution, the real picture is more complex than the stories told in the media about polyester being the main cause of microfibre pollution. R. Blackburn continued by saying that there's a danger in framing it as 'plastic pollution' because people may assume 'the answer to this is to use more cotton' but cotton also has huge environmental costs in production that polyester avoids. This issue is also down to the terminology and language used to frame the debate, as Kate Goldsworthy (University of the Arts London) suggested:

"What if we flip it around and say 'microfibres including plastic' rather than 'plastic including microfibres'?"

R. Thompson agreed that this is an interesting idea, going on to explain that, when they began their research, his team went out to look for plastic and found a large quantity of fibres and this is how the narrative developed. Richard noted that having this discussion is leading him to rethink the language that we might use in Future Fibres: suggesting maybe we can agree on the language we use as a Network.

Earlier in his talk R. Thompson had said that a sector-specific approach to pollution is needed – could this be a better approach for textiles as the variety of material types entering the environment from textiles is so diverse?

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Tamara Galloway (University of Exeter) raised the point that, given the complexity of understanding fibre shedding and pollution, perhaps a central question might be 'how do we slow everything down?'. R. Thompson agreed saying that this is where the social science research becomes really important, to understand why someone might choose one garment over another, as his research has shown that there can be a huge difference in the fibre shedding levels of one garment and another that essential perform the same function. Max Kelly (University of Plymouth) cited a WRAP report that stated that extending garment life by 9 months can dramatically reduce lifecycle costs.

R. Thompson's talk had highlighted what he sees as the most important place in the system to intervene – at the design stage – saying that while identifying 'harm' and risk is important, it's even more important to understand how fibre shedding can be reduced. Richard sees the garment and textile design as potentially having a much bigger impact on fibre shedding than any of the other areas of current focus, such as looking for alternative fibres or focusing on washing machine filters, some of which can be fairly ineffective. Rosie Hornbuckle (University of the Arts London) then asked Thompson if the sheer number of textile variables is a barrier to scientific research which tests and identifies low-shedding textile and garment structures.

R. Thompson responded by saying that this is what he hopes the Network will be able to help him with – could we between us come up with an ideal prototype of a low-shedding garment?

R. Blackburn closed the discussion by pointing out that it isn't only in the wearing and disposal of a garment that shedding occurs. If you go to a garment factory the floor is thick with fibres, and he argues polyester fibres can be recycled effectively regardless of their size making it much more effective as a circular material throughout the supply chain.

Convened and translated by Dr Rosie Hornbuckle, University of the Arts London