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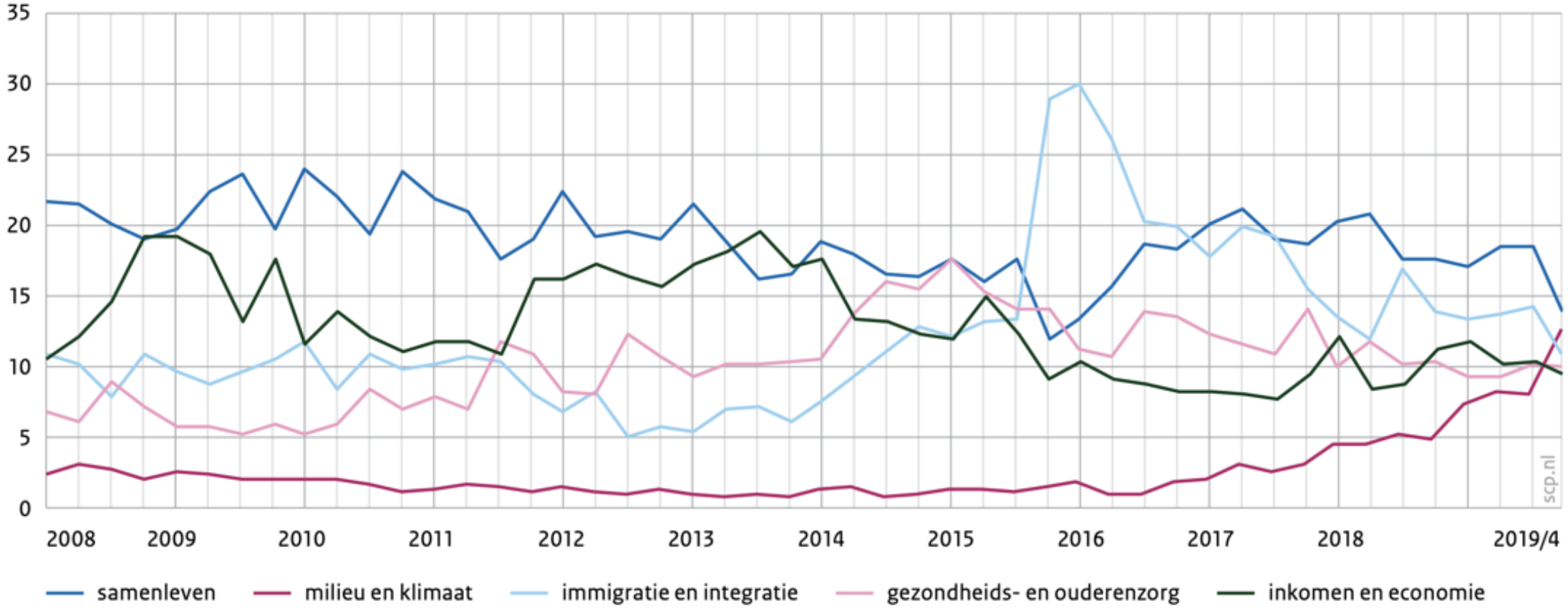
Understanding and changing

Consumer perceptions and behavior towards polymers

Prof. dr. Frenk van Harreveld

Perceived importance climate change

Figuur 1.5 Ontwikkelingen in het nationale probleembesef, de vijf grootste categorieën van dit kwartaal, bevolking van 18+, 2008-2019/4 (in procenten)[a]



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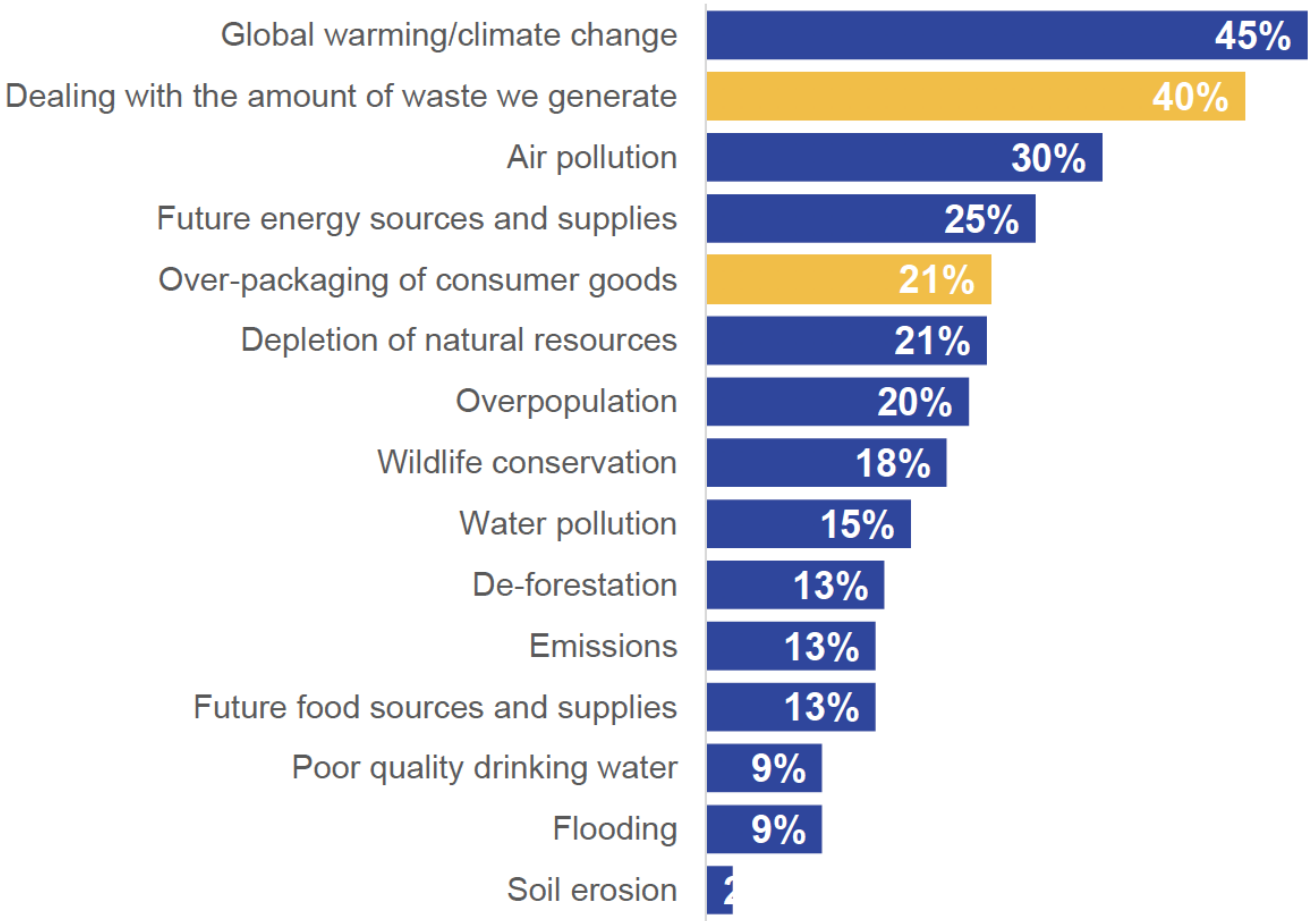
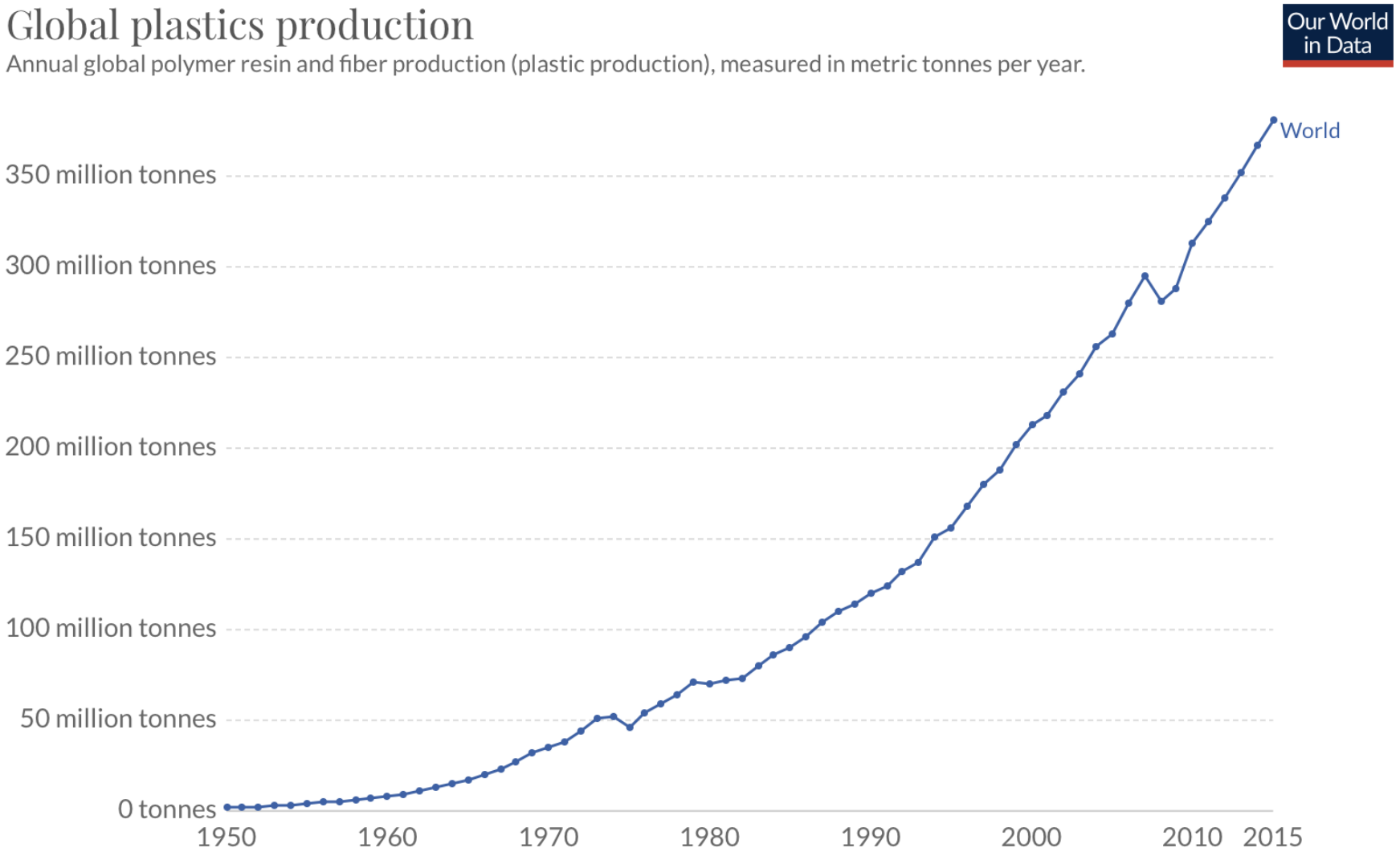
Environmental concerns



Global plastics production

Annual global polymer resin and fiber production (plastic production), measured in metric tonnes per year.



Source: Geyer et al. (2017)
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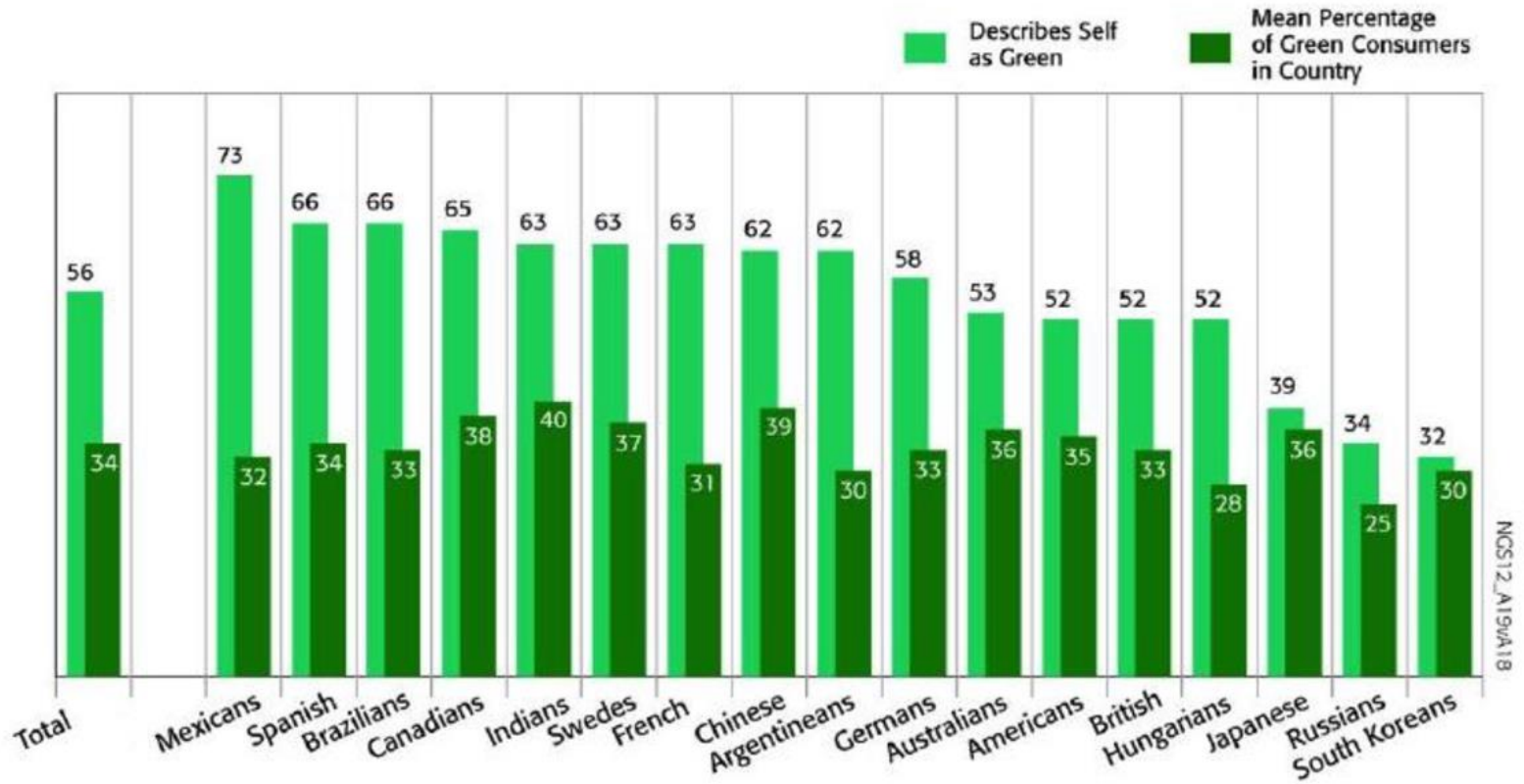
Plastic: Why Coca-Cola won't be ditching single-use plastic bottles

23 Jan 2020 Last updated at 14:58

One of Coca-Cola's bosses has said that the soft drink company won't stop using single-use plastic because people still want plastic bottles.

Bea Perez, who is the firm's head of sustainability, argued that customers like them because they re-seal and are lightweight.

Mind the gap

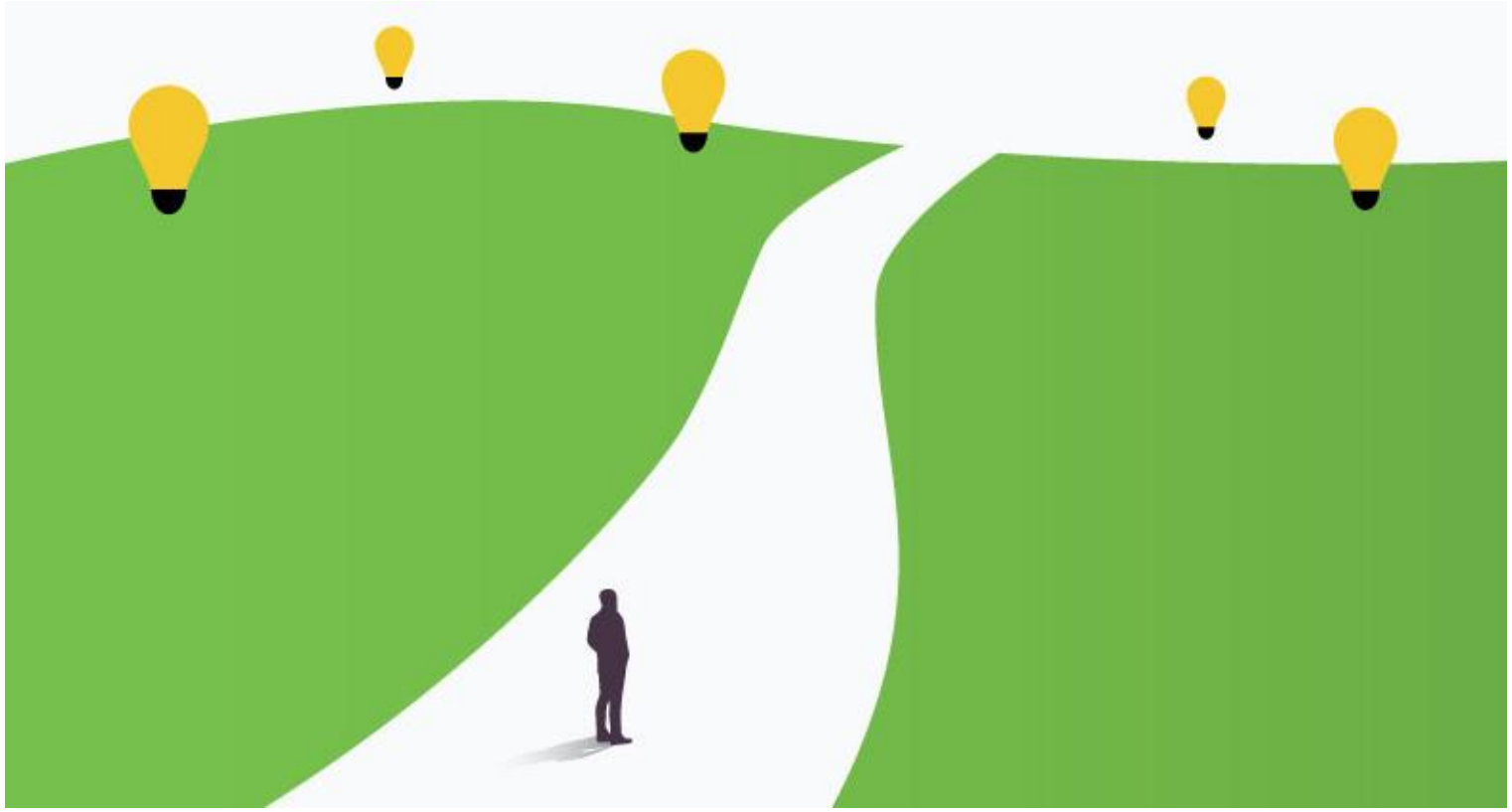


Terlau, W. & Hirsch, D. (2015). Sustainable Consumption and the Attitude-Behaviour-Gap Phenomenon - Causes and Measurements towards a Sustainable Development. *Int. J. Food System Dynamics 6*, 159-174

Psychological distance

"a cognitive separation between the self and other instances such as persons, events, or times."

Trope & Liberman (2003).



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The psychology of sustainable behaviour

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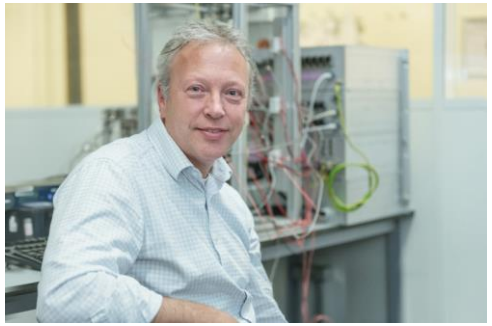


avantium

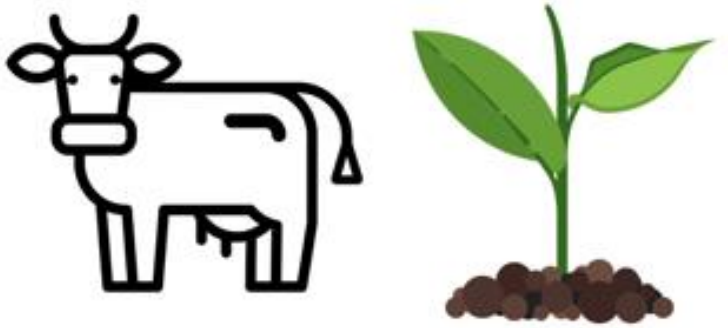
LEGO

'Regular' plastic

Bio-based plastic

fossil feedstocks

biomass



No additional CO_2

You will now be presented with a number of statements. Please indicate to what extent you agree with each of the statements. (7-point Likert-scale from *0 = strongly disagree* to *6 = strongly agree*)

Plastic/Bio-based plastic…

1. … is **convenient.**
2. … is **lightweight**.
3. … is **cheap.**
4. … is readily **available.**
5. … is **useful.**
6. … is **durable.**
7. … is **hygienic**
8. … is **safe.**
9. … is **good for storage and packaging.**
10. … is **recyclable.**
11. … **takes a long time to decompose.**
12. … **pollutes bodies of water** (e.g. oceans).
13. … **causes waste.**
14. … **pollutes the air.**
15. … is **harmful to people's health** (e.g., by entering the food chain or drinking water).
16. … is **harmful to animals.**
17. … **depletes natural resources.**
18. … is **often of poor quality** (e.g., breaks easily).

We are now going to ask you about your feelings concerning plastic/bio-based plastic use. Please indicate how much you agree with the following statements. (7-point Likert-scale from *0 = strongly disagree* to *6 = strongly agree*)

When I think about plastic/bio-based plastic use, I feel….

… **worried.**
… **joy.**
… **guilty.**
… **sad.**
… **angry.**
… **uncertain.**
… **excited.**

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This 1.5L **regular** plastic bottle of water costs £1.

How much would you be willing to pay for the same bottle of water if it were made from **bio-based plastic**?

£0 £1 £2

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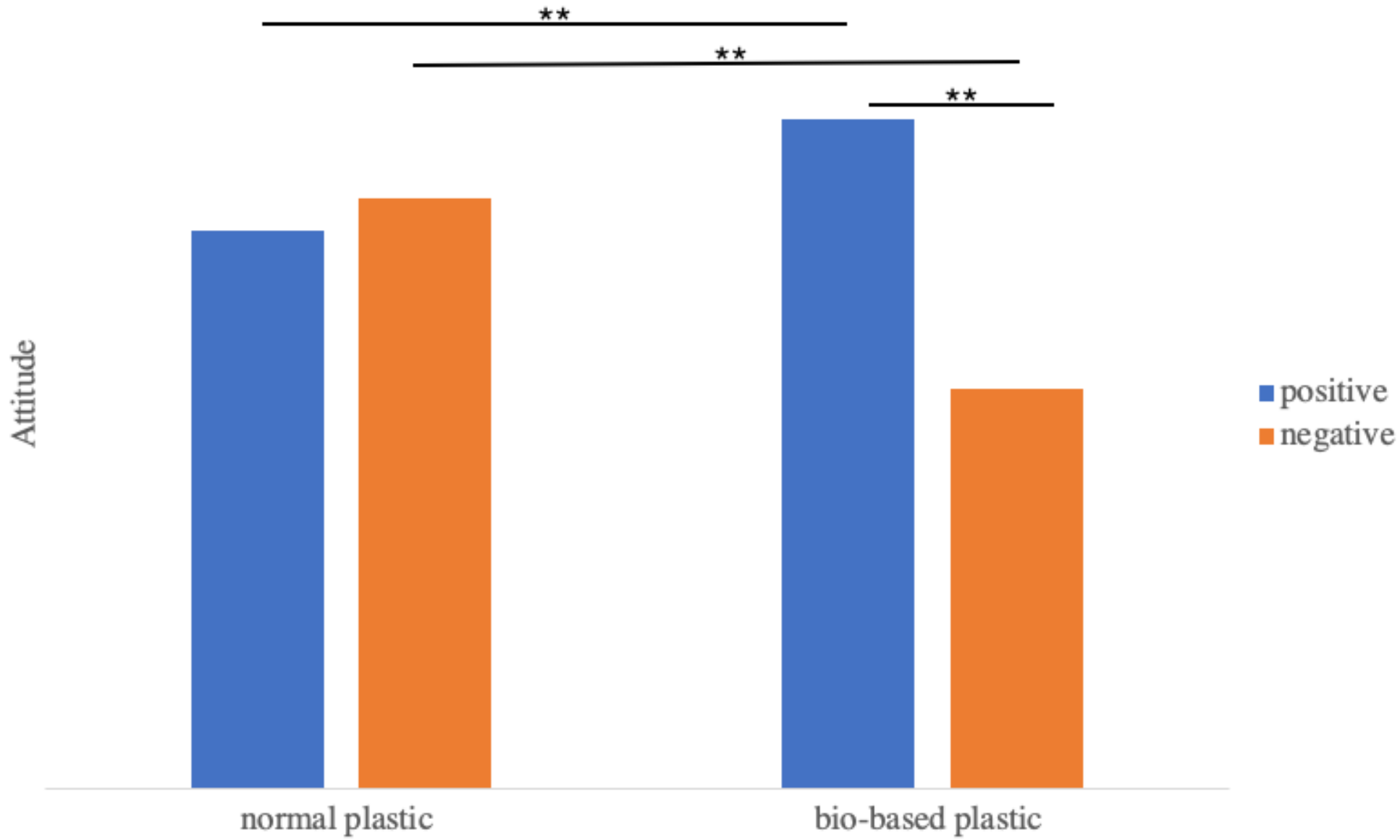
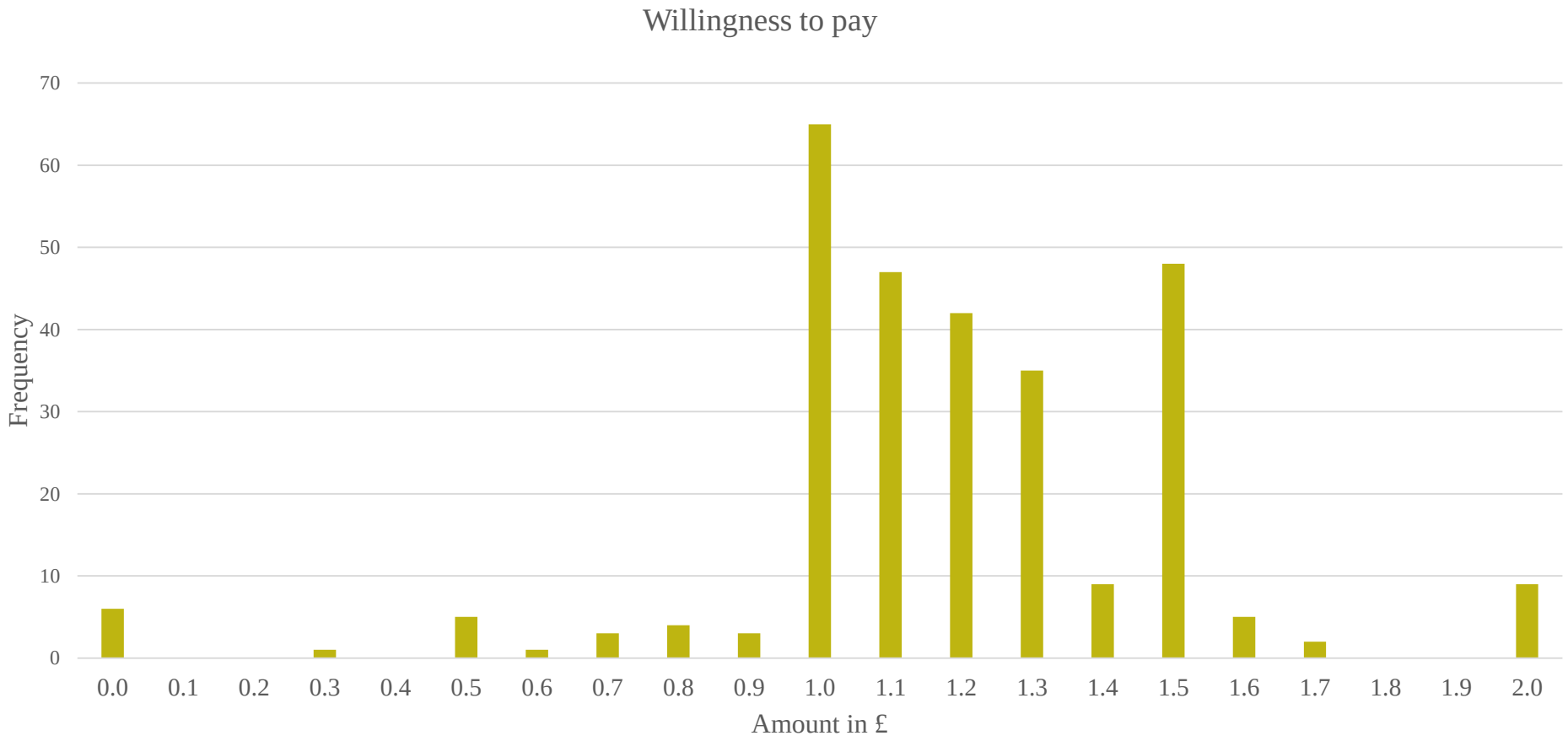
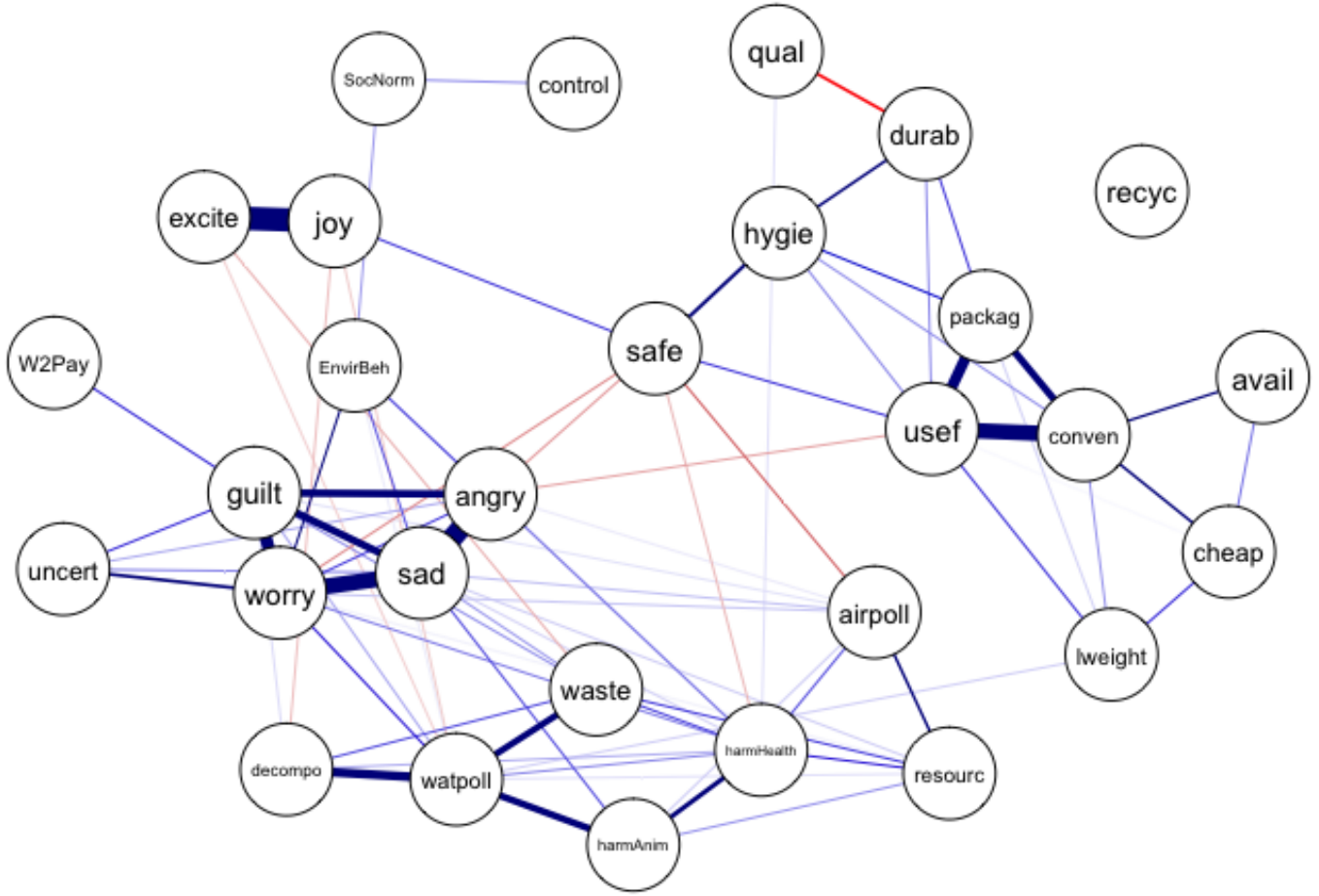
Attitudes



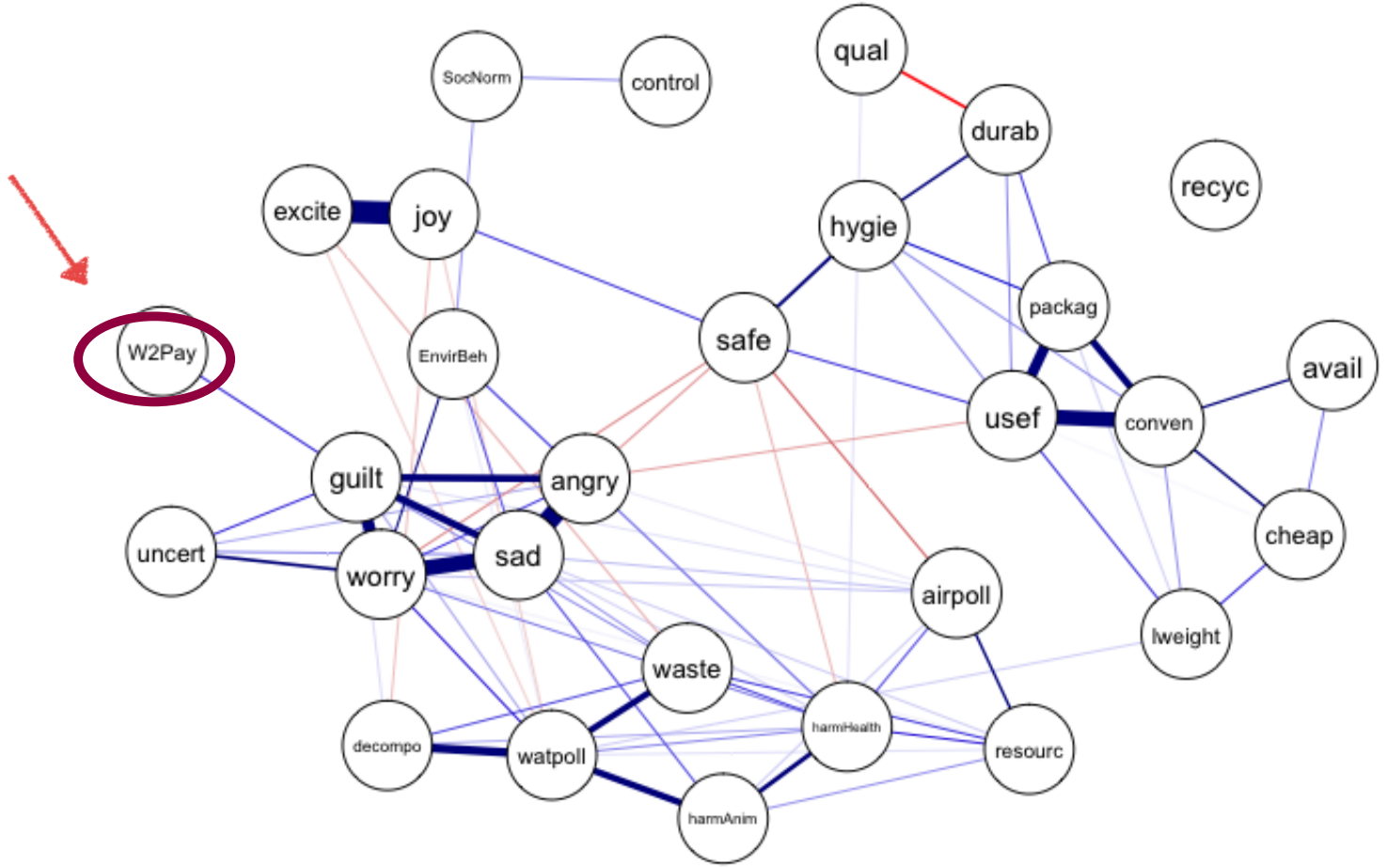
Willingness to pay



Plastic attitude network



Plastic attitude network



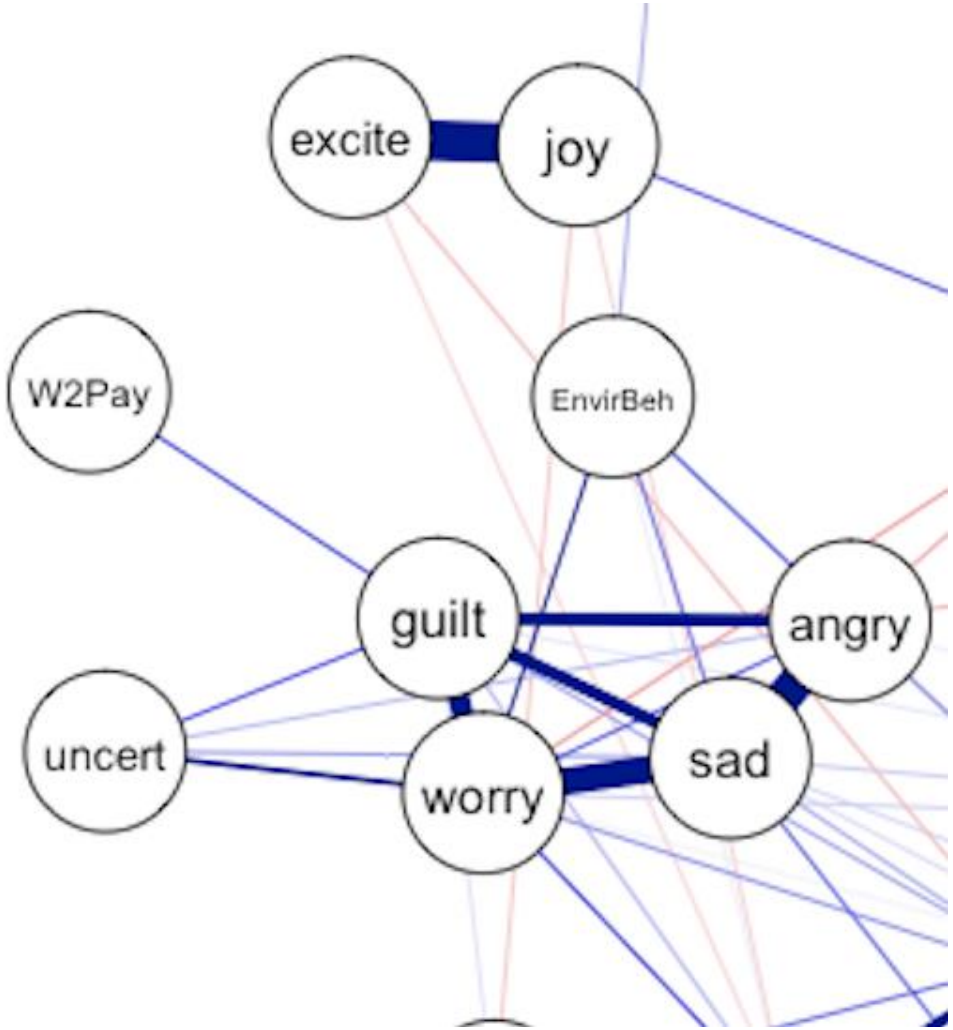
Willingness to pay: donation

Guilt →

t(230.517) = - 1.966, p = 0.05*

*This is the corrected p-value suggested by the statistically significant Levene's Test for Equality of Variances. The uncorrected p-value was only marginally significant t(283) = - 1.800, p = 0.061.

Emotions



Emotions

None of the other emotions that we measured predict donation amount.

- Anger
- Excitement
- **Guilt** ($t = 3.117$, $p = 0.002$, $\beta = 0.182$)
- Joy
- Uncertainty
- Sadness
- Worry

$R^2 = 0.033$, $F(1, 283) = 9.713$, $p = 0.002$

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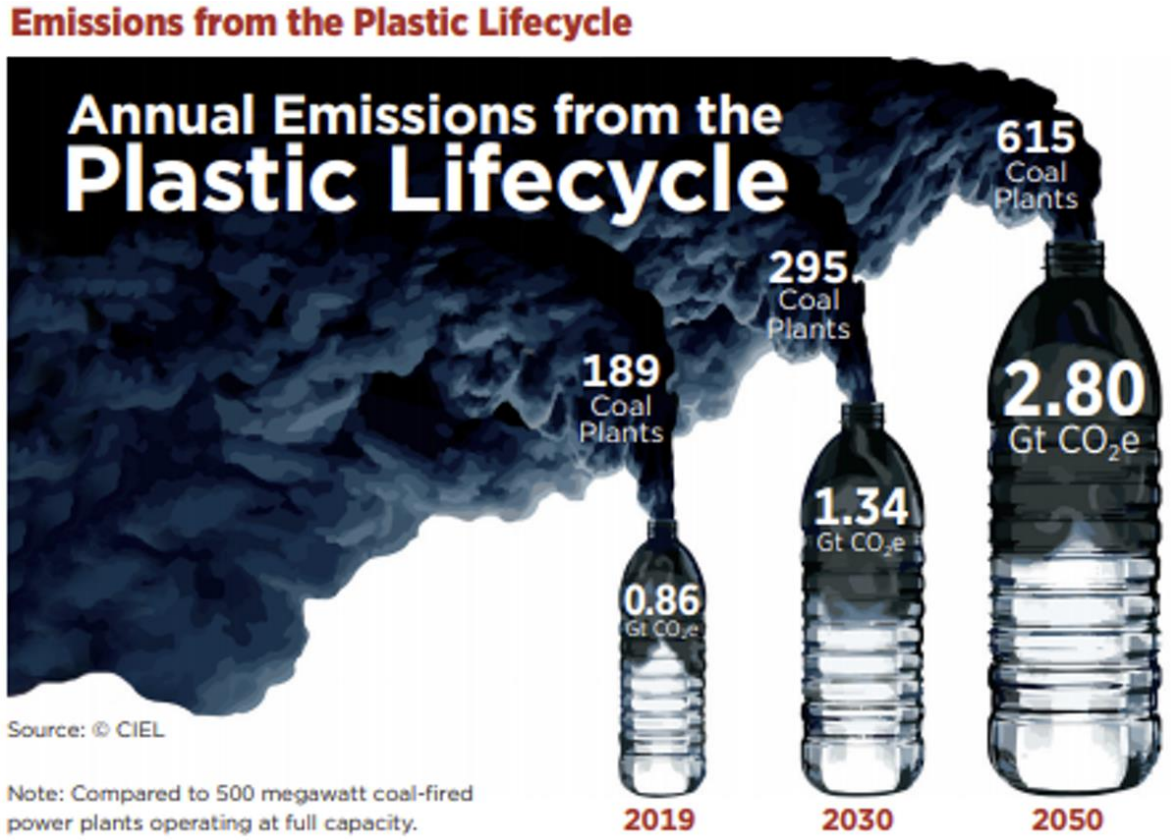
Conclusions

- Broad values of consumers about the environment are not always translated into behaviour.
- Bridging the gap between attitudes and behaviour.
- Empirical network models provide insight into primary drivers of behaviour.
- Inroads into targeted persuasion strategies to change behaviours.
- Educating the public about consequences of plastic.



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Moving forward

- Psychological distance revisited: reducing distance to the benefits of changing towards more sustainable behaviour.
- Visibility is key
- Role models
- Positive emotions

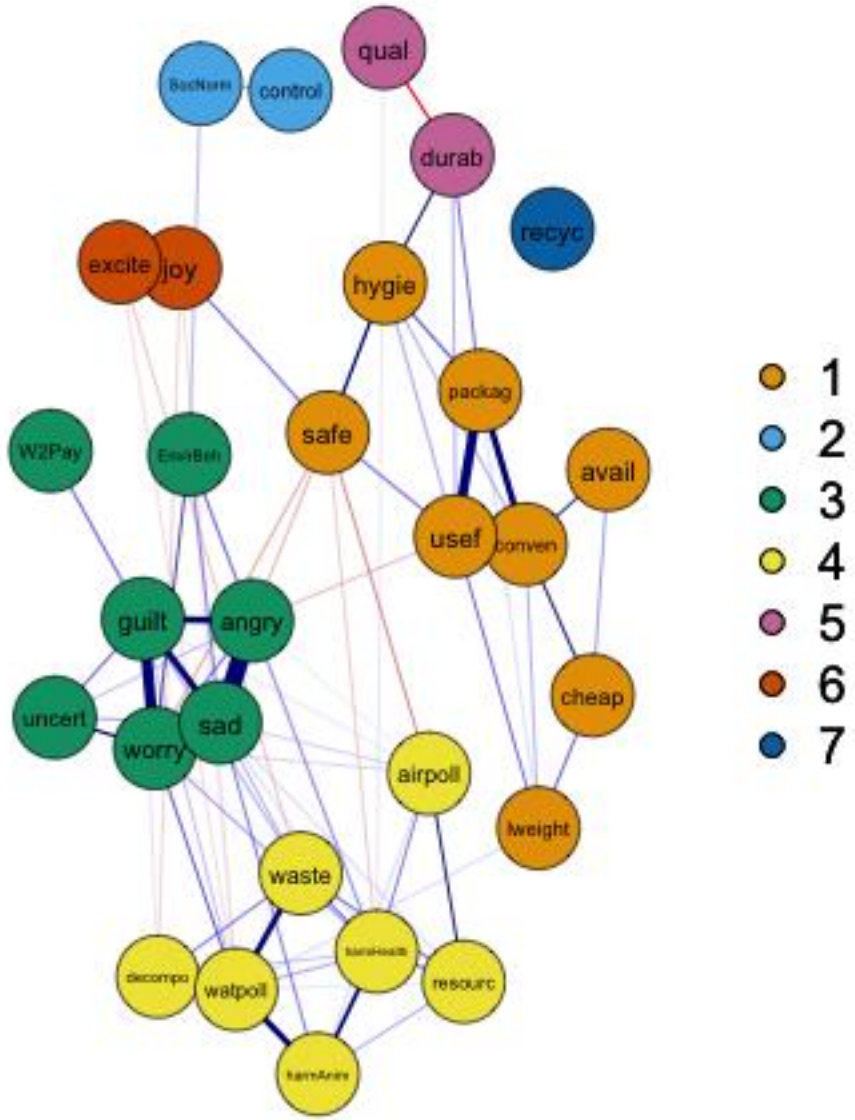
INTERPERSONAL RELATIONS AND GROUP PROCESSES

Going Green to Be Seen:
Status, Reputation, and Conspicuous Conservation

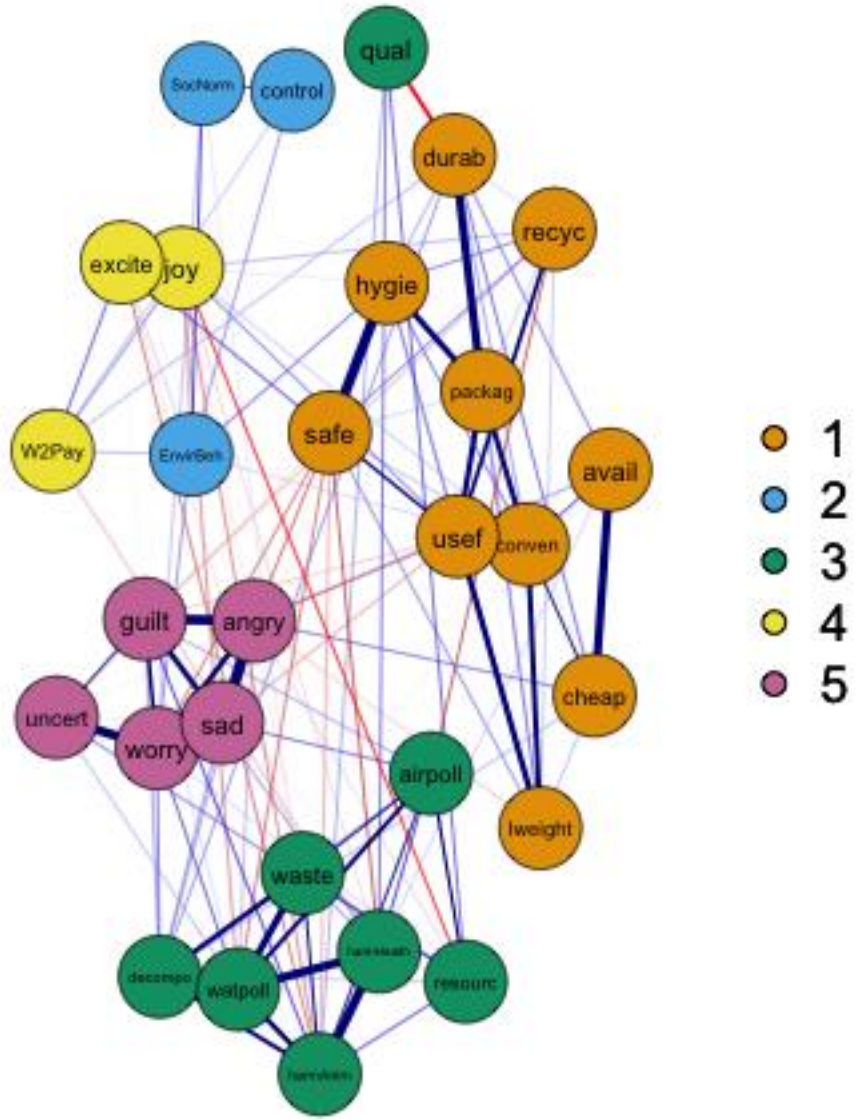
Vladas Griskevicius
University of Minnesota

Joshua M. Tybur
University of New Mexico

Bram Van den Bergh
Rotterdam School of Management



Plastic



Bio-based plastic