



UNIVERSITEIT VAN AMSTERDAM

Faculteit der Maatschappij- en  
Gedragwetenschappen

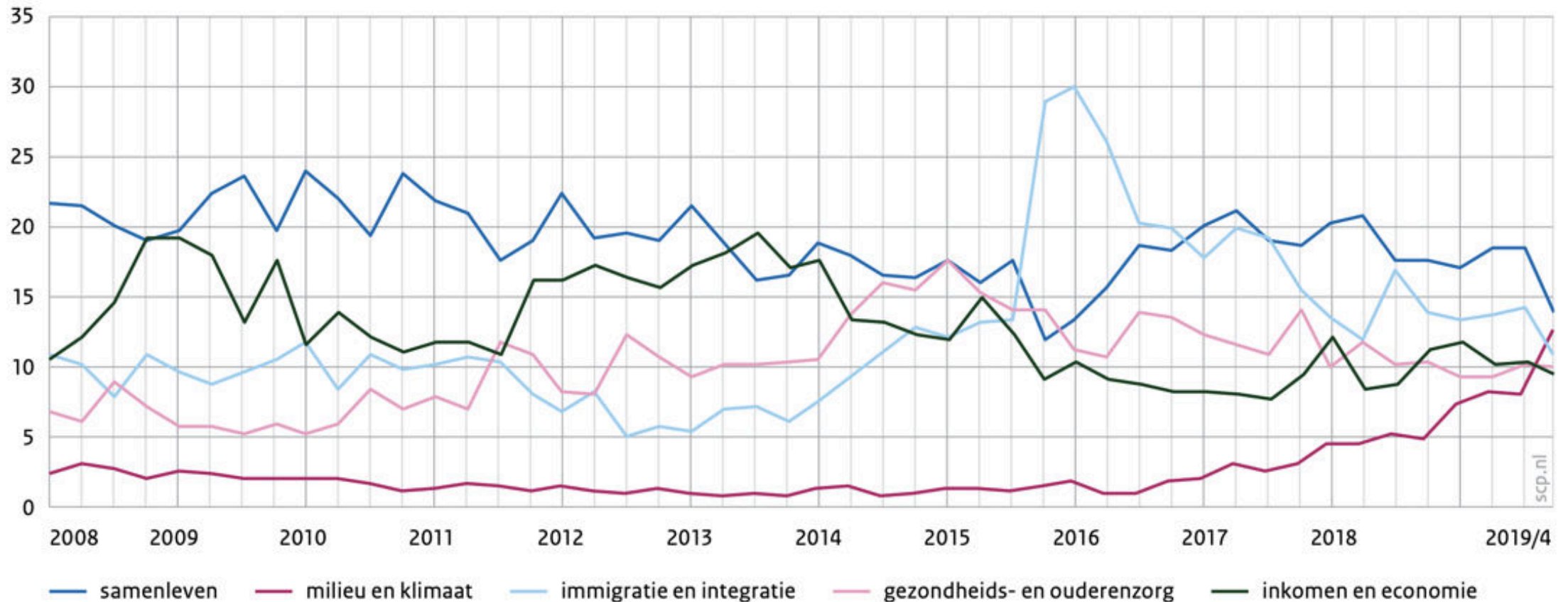
A woman with long brown hair, wearing a black leather jacket, is shown in profile, reaching out to touch a package of fresh green vegetables in a supermarket produce section. The shelves are filled with various packaged vegetables, including leafy greens and cherry tomatoes. The lighting is bright, typical of a grocery store.

Understanding and changing  
**Consumer perceptions and  
behavior towards polymers**

Prof. dr. Frenk van Harreveld

# Perceived importance climate change

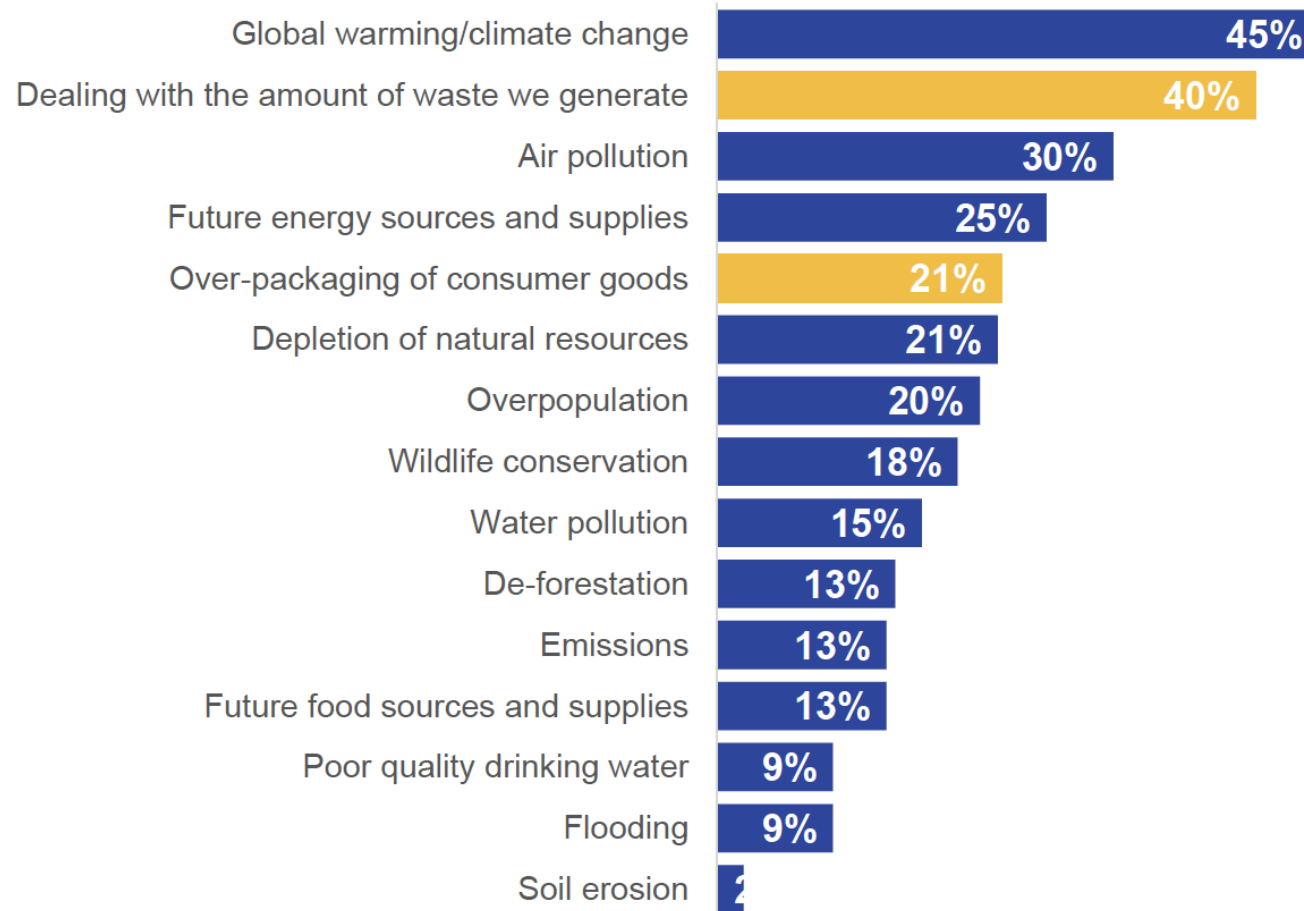
Figuur 1.5 Ontwikkelingen in het nationale probleembesef, de vijf grootste categorieën van dit kwartaal, bevolking van 18+, 2008-2019/4 (in procenten)<sup>a</sup>







# Environmental concerns

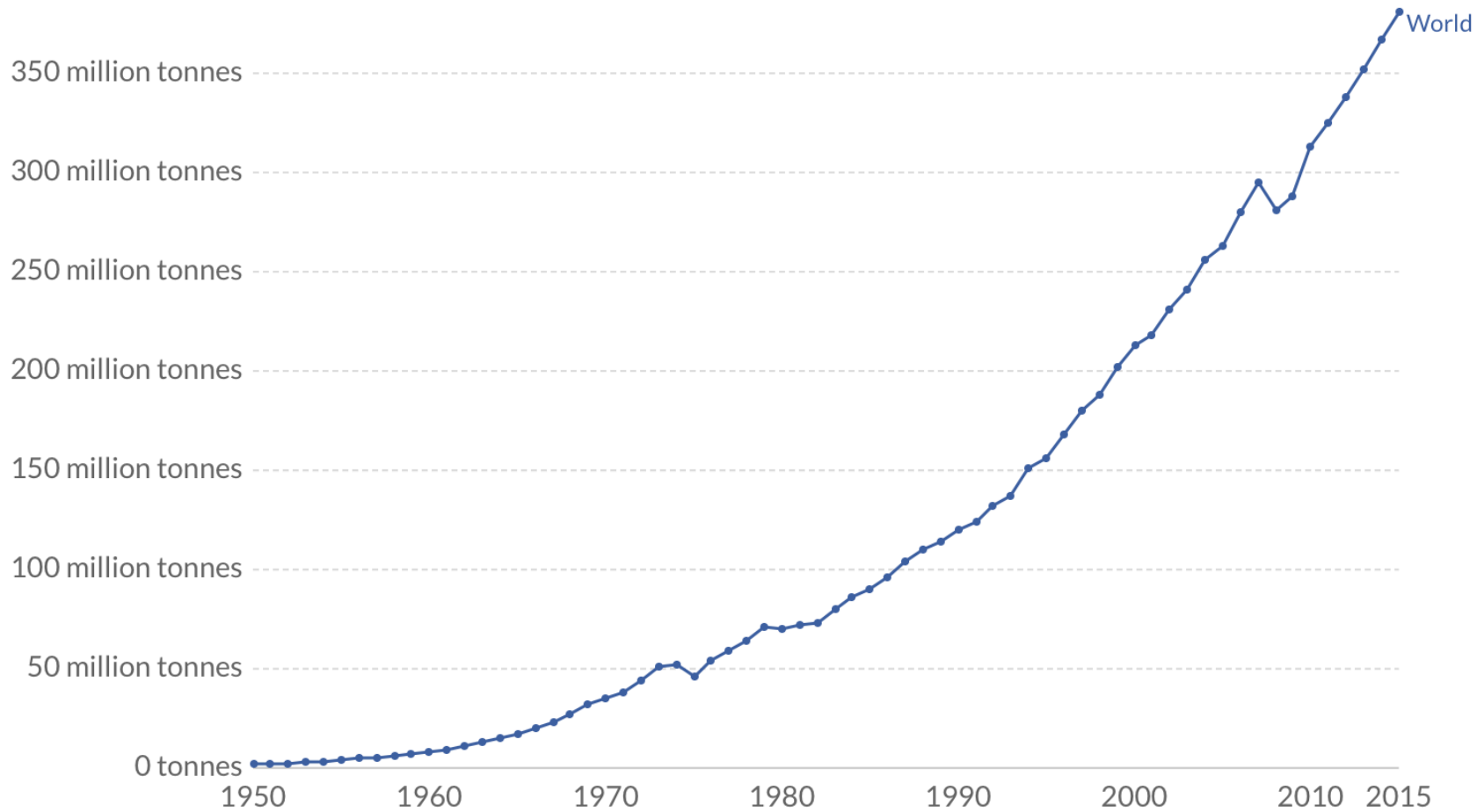




## Global plastics production

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

Our World  
in Data



Source: Geyer et al. (2017)  
CC BY



# Plastic: Why Coca-Cola won't be ditching single-use plastic bottles

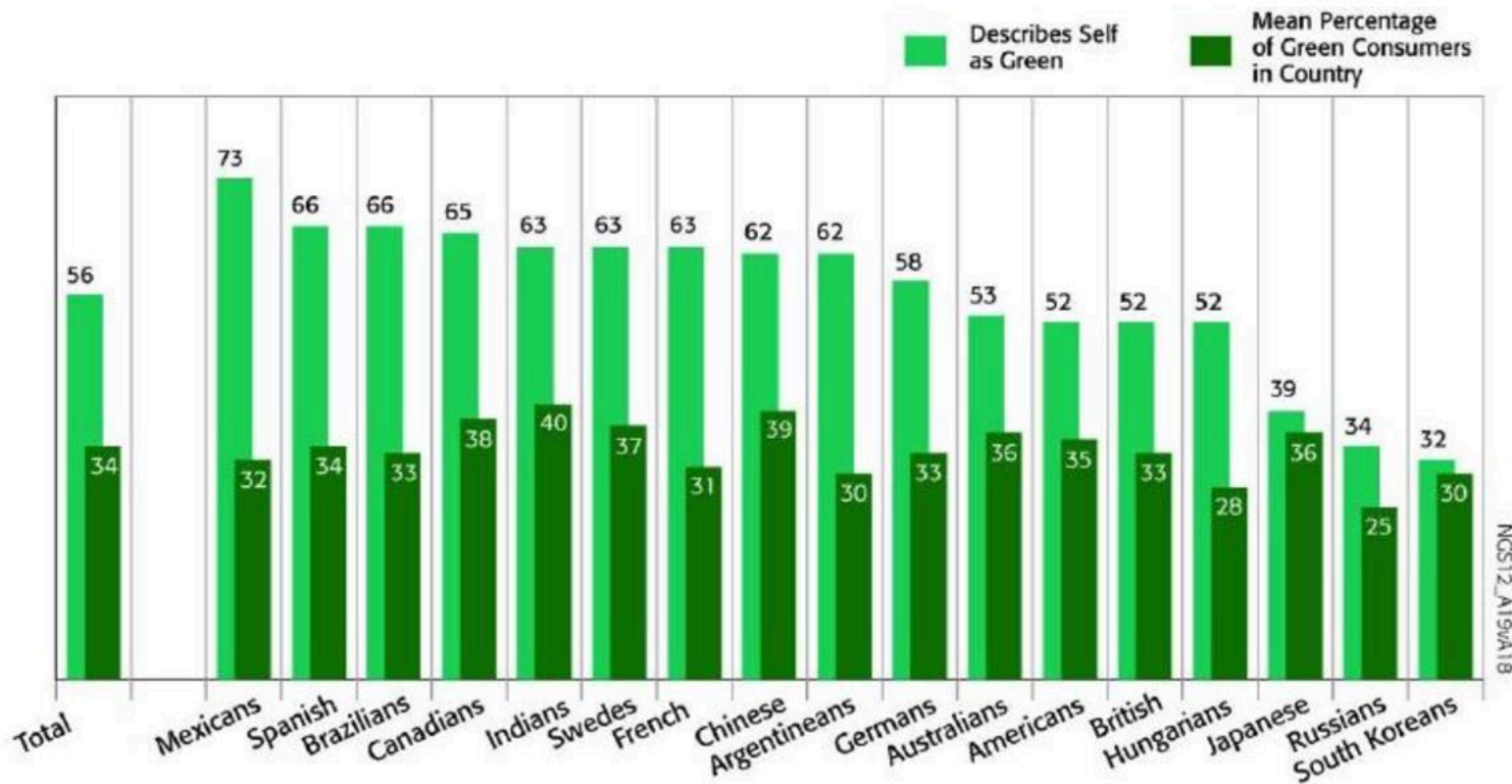
© 23 Jan 2020 Last updated at 14:58



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).

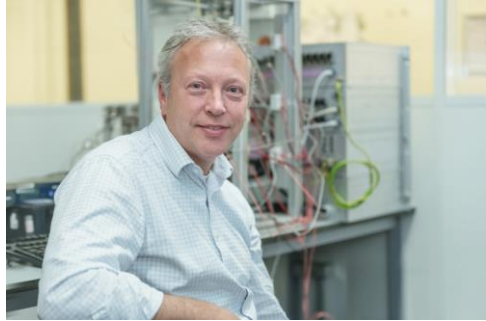






# The psychology of sustainable behaviour



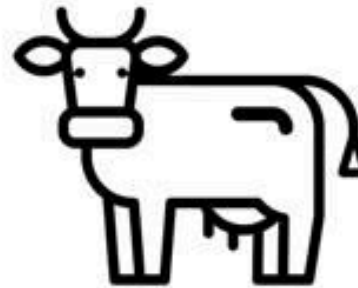


'Regular' plastic

Bio-based plastic

fossil feedstocks

biomass



No additional CO<sub>2</sub>

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.**





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

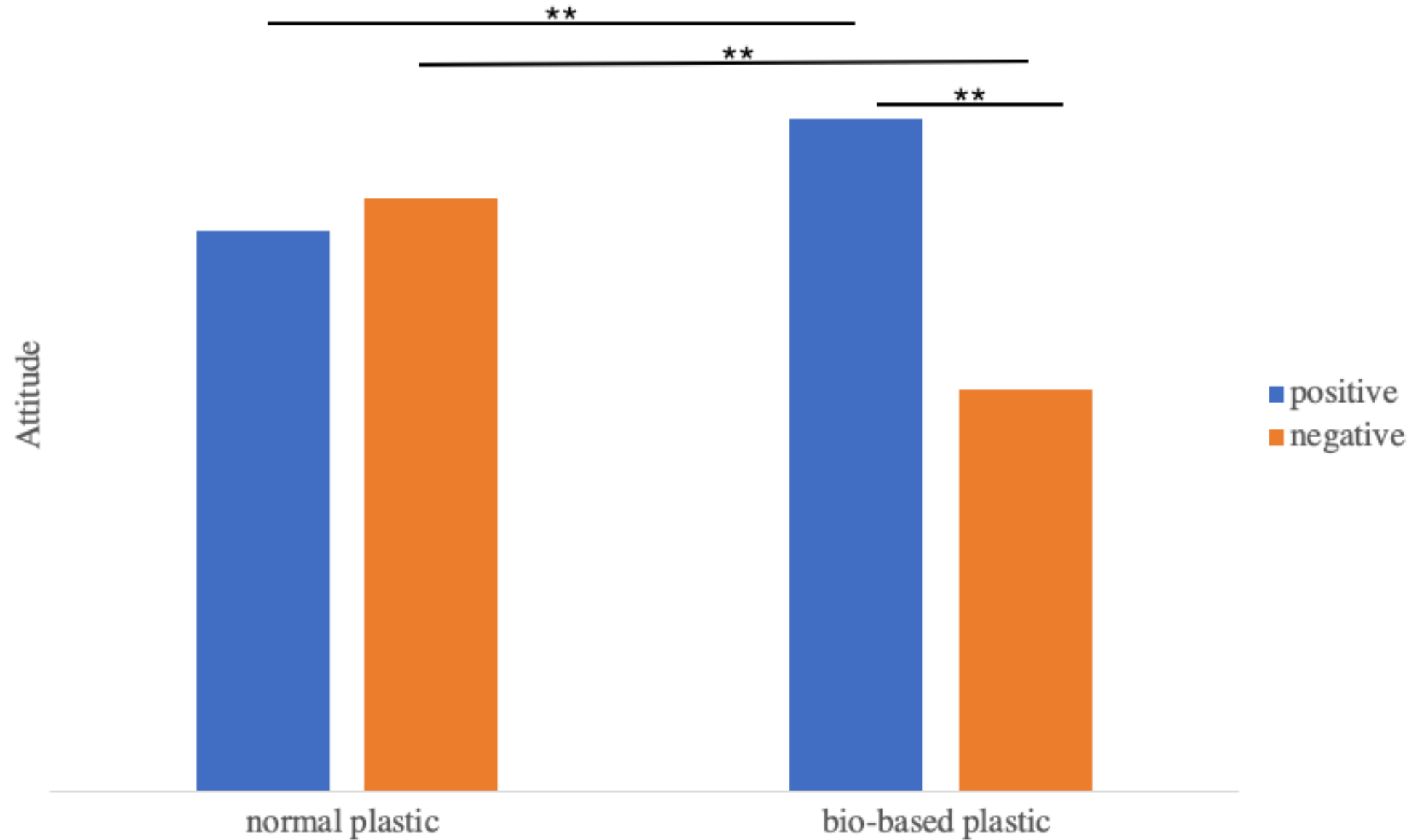
£1

£2



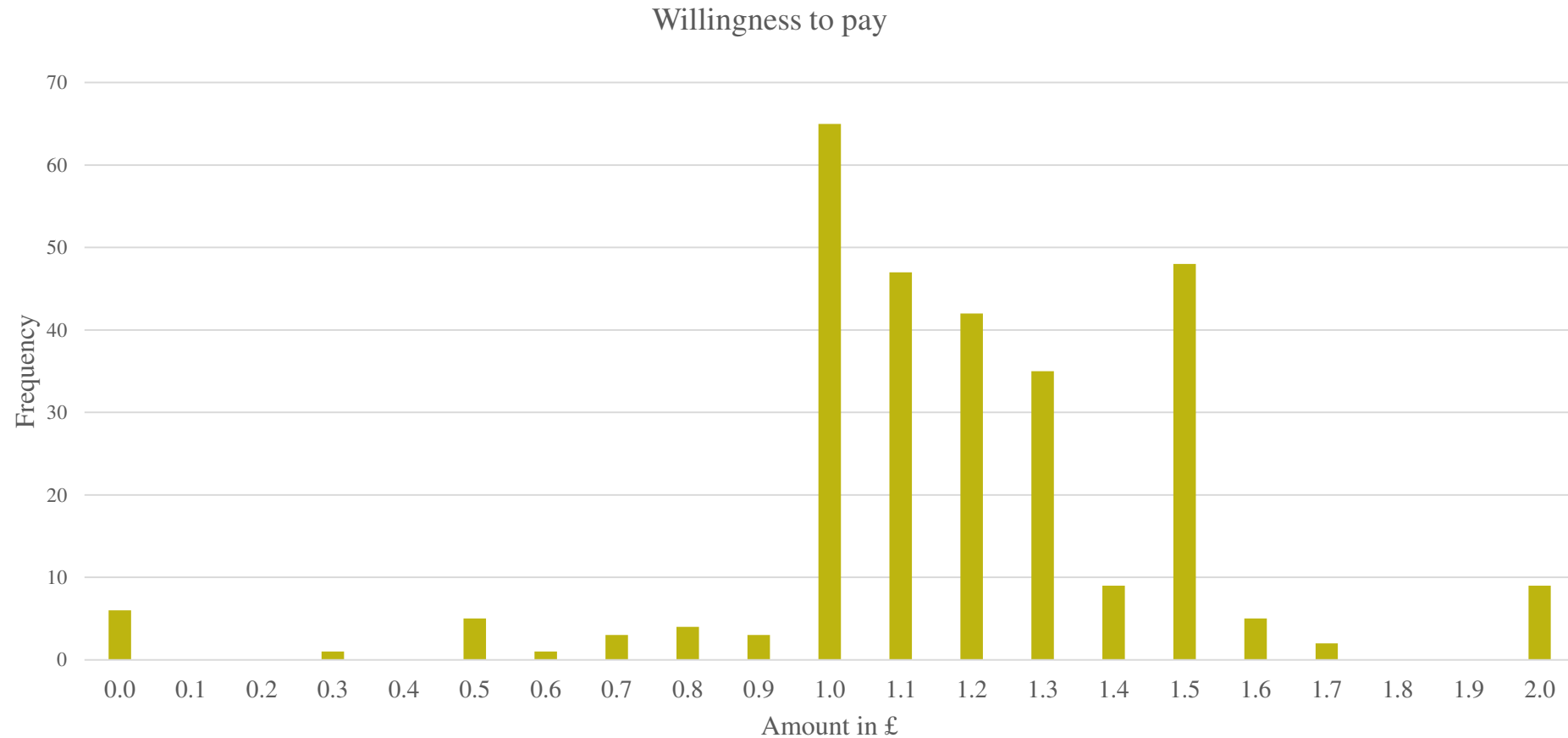


# Attitudes

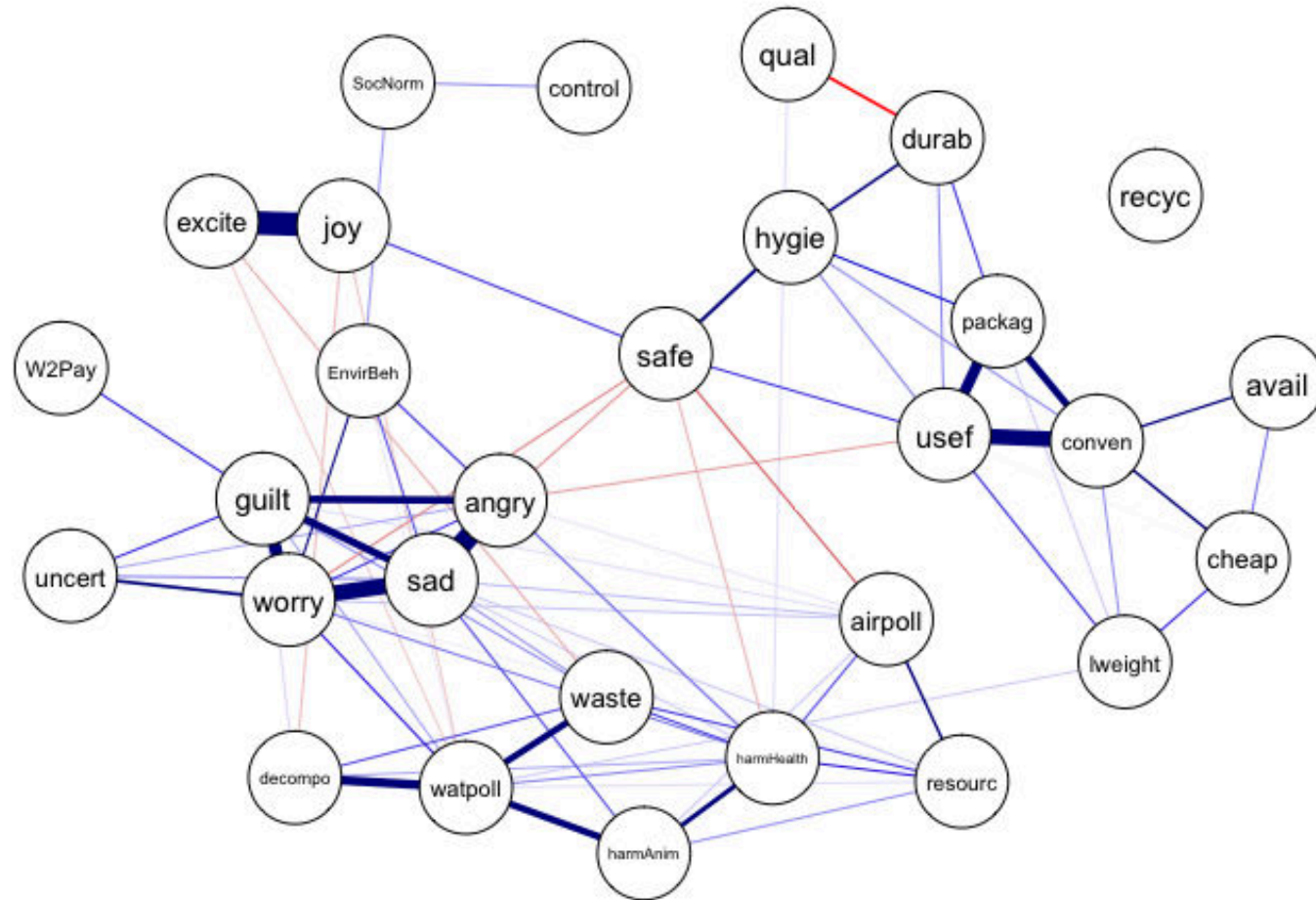




# Willingness to pay

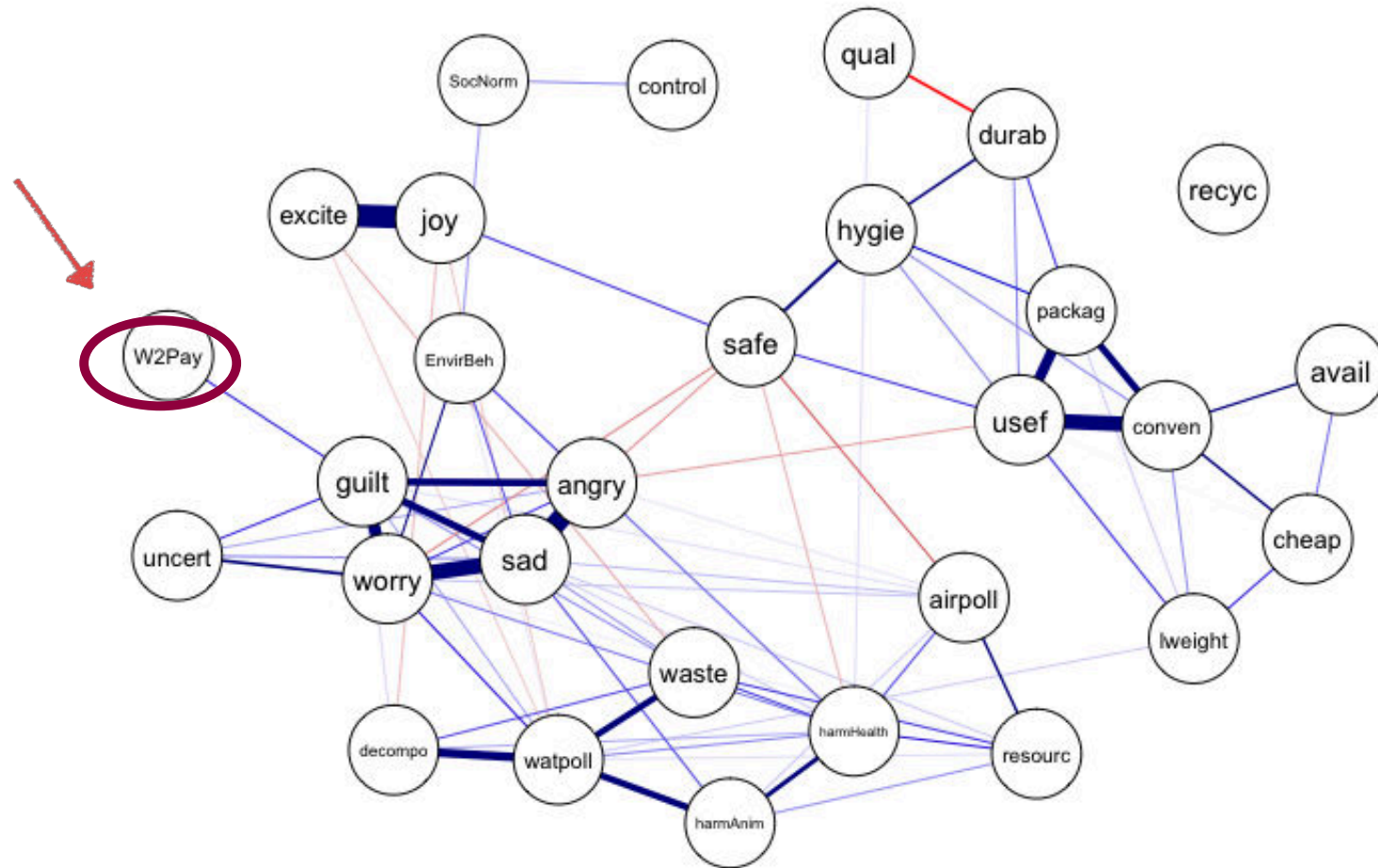


# Plastic attitude network





# Plastic attitude network





# Willingness to pay: donation

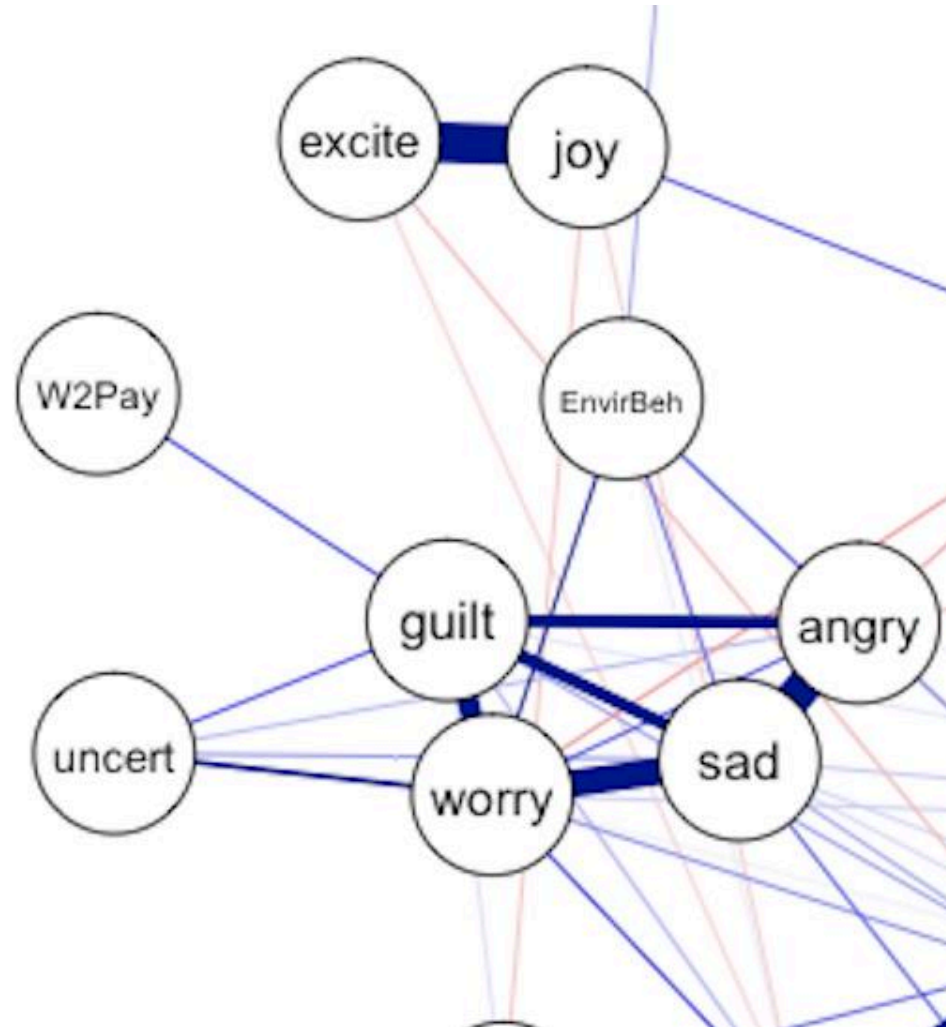
*Guilt*



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

\*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

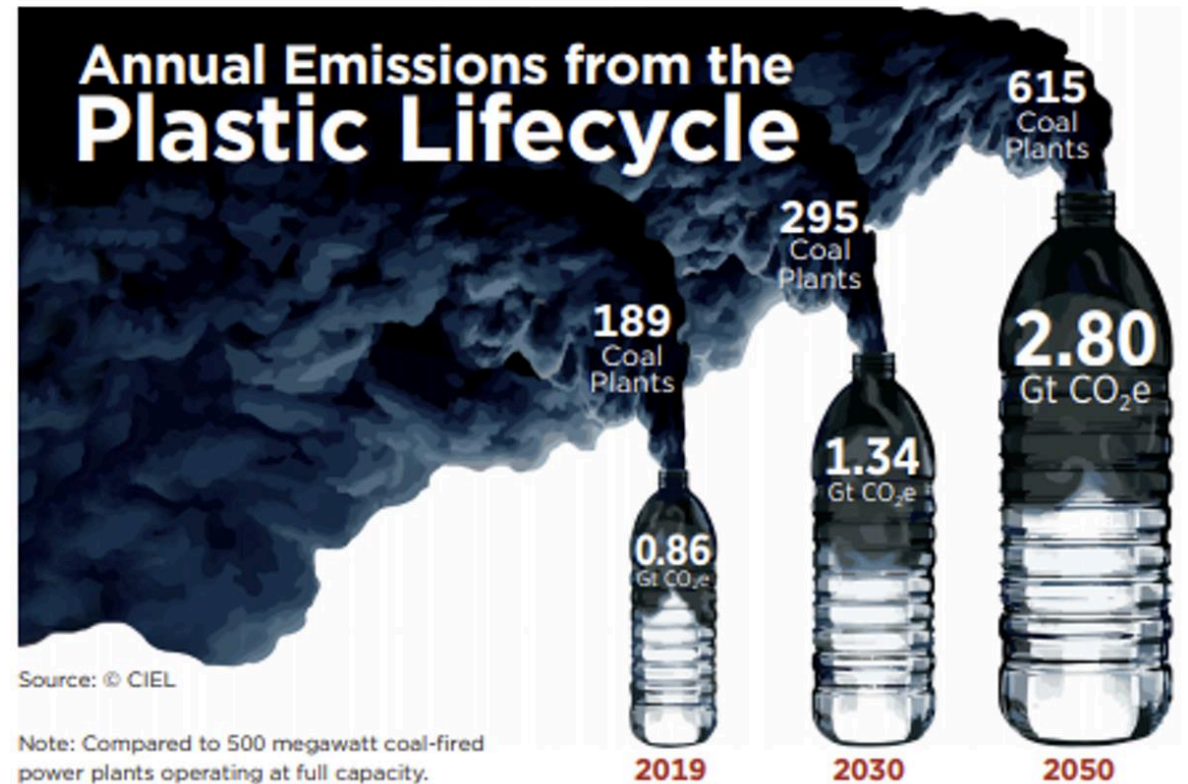


$R^2 = 0.033, F(1, 283) = 9.713, p = 0.002$

# 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.

## Emissions from the Plastic Lifecycle





# Moving forward

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



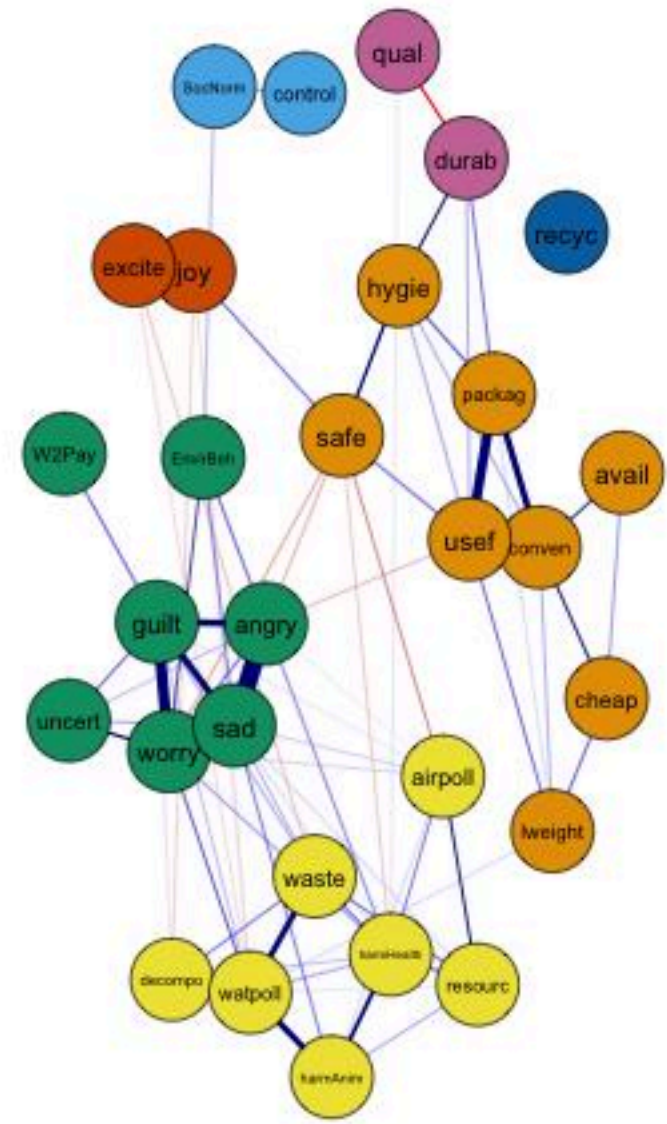
## INTERPERSONAL RELATIONS AND GROUP PROCESSES

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

Vladas Griskevicius  
University of Minnesota

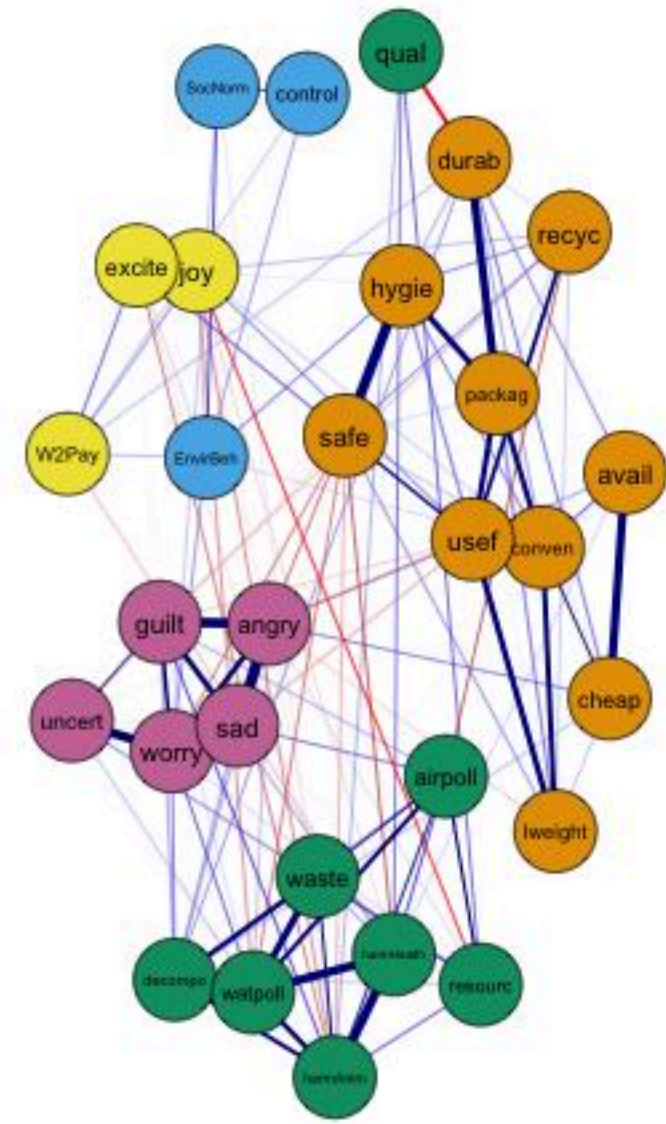
Joshua M. Tybur  
University of New Mexico

Bram Van den Bergh  
Rotterdam School of Management



Plastic

- 1
- 2
- 3
- 4
- 5
- 6
- 7



Bio-based plastic

- 1
- 2
- 3
- 4
- 5