Developments in pro-environmental behavior research

Dr Cameron Brick

Assistant Professor, University of Amsterdam

Talk slides CC-0 osf.io/d2esc
Papers www.cameronbrick.com

UNIVERSITY OF AMSTERDAM







Addressing the Climate Crisis: An Action Plan for Psychologists

Report of the APA Task Force on Climate Change

American Psychological Association

February 2022

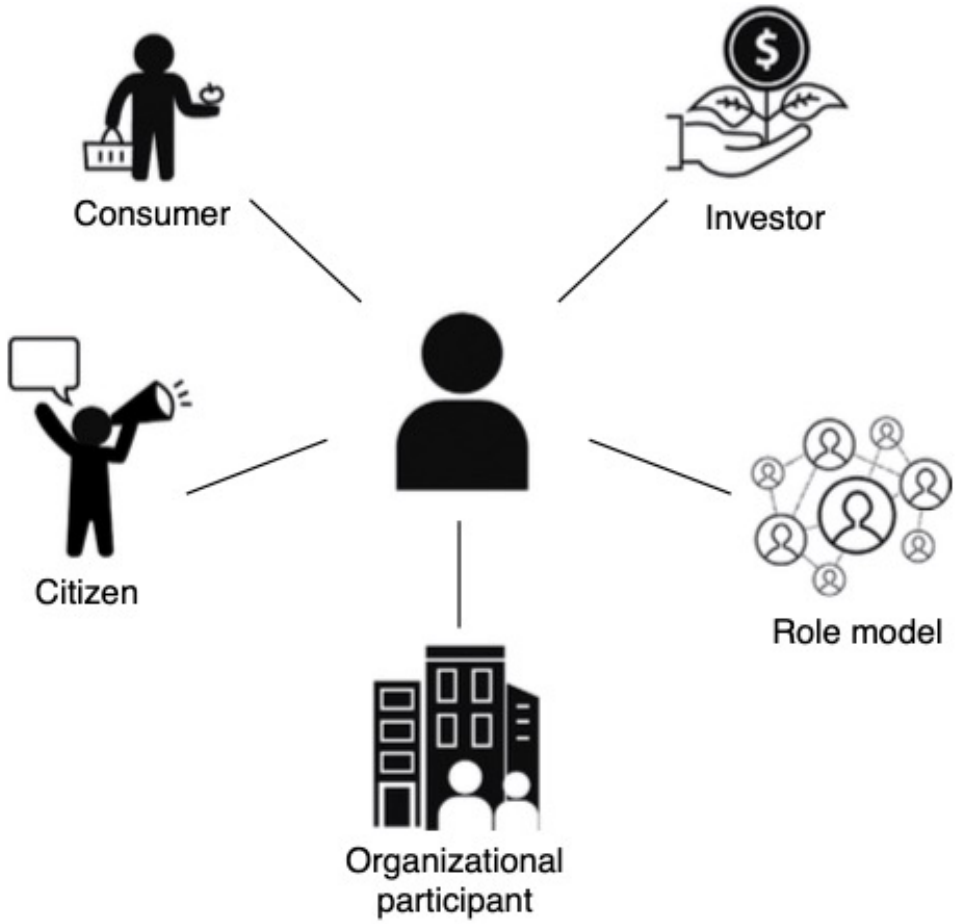


Fig. 1 | Five roles through which people of high SES can influence GHG emissions. People with high SES have disproportionate climate influence via their roles as consumers, investors, role models within their social networks and for others who observe their choices, participants in organizations and citizens seeking to influence public policies or corporate behaviour. Image credit: Emma Li Johansson (Lilustrations) and the Noun Project (https://thenounproject.com/).

NATURE ENERGY

10.1038/s41560-021-00900-y



Dr Kristian Nielsen

I See Developments

Rising:

- Open scholarship and team science
- Challenges to a unitary 'pro-environmental behavior'
- Policy acceptance and activism
- Attention to corporations, wealth, and obstructing powers



Scientist Rebellion Italy 2022

NATURE ECOLOGY & EVOLUTION | VOL 3 | SEPTEMBER 2019 | 1271–1272 | www.nature.com/natecolevol





Scientists must act on our warnings to humanity

Some may argue that advocating for a political position jeopardizes our scientific credibility. However, experiments have shown that making advocacy statements does not affect the perceived credibility of scientists (J. E. Kotcher et al., *Environ. Commun.* **11**, 415–429; 2017).

Credit

© 2021 American Psychological Association
ISSN: 0003-066X

2021, Vol. 76, No. 8, 1217–1231
https://doi.org/10.1037/amp0000867

When the Political Is Professional: Civil Disobedience in Psychology

Anthony W. P. Flynn[1], Sergio Domínguez Jr.[1], Ree Ae S. Jordan[1], Rachel L. Dyer[1], and Ezra I. Young[2]

INTERNATIONAL REVIEW OF PSYCHIATRY
2022, VOL. 34, NO. 5, 553–562
https://doi.org/10.1080/09540261.2022.2093627

Taylor & Francis
Taylor & Francis Group

RESEARCH ARTICLE

Check for updates

Protesting for public health: a case for medical activism during the climate crisis

Philippa Clery[a*], Liam Embliss[b*], Amelia Cussans[c], Eleanor Cooke[a], Kirsten Shukla[d,e,f] and Ching Li[f,g]



Extinction Rebellion London

Apr 2019: 1.150 arrests
Oct 2019: 1.700 arrests





Discovering the psychological building blocks underlying climate action—a longitudinal study of real-world activism

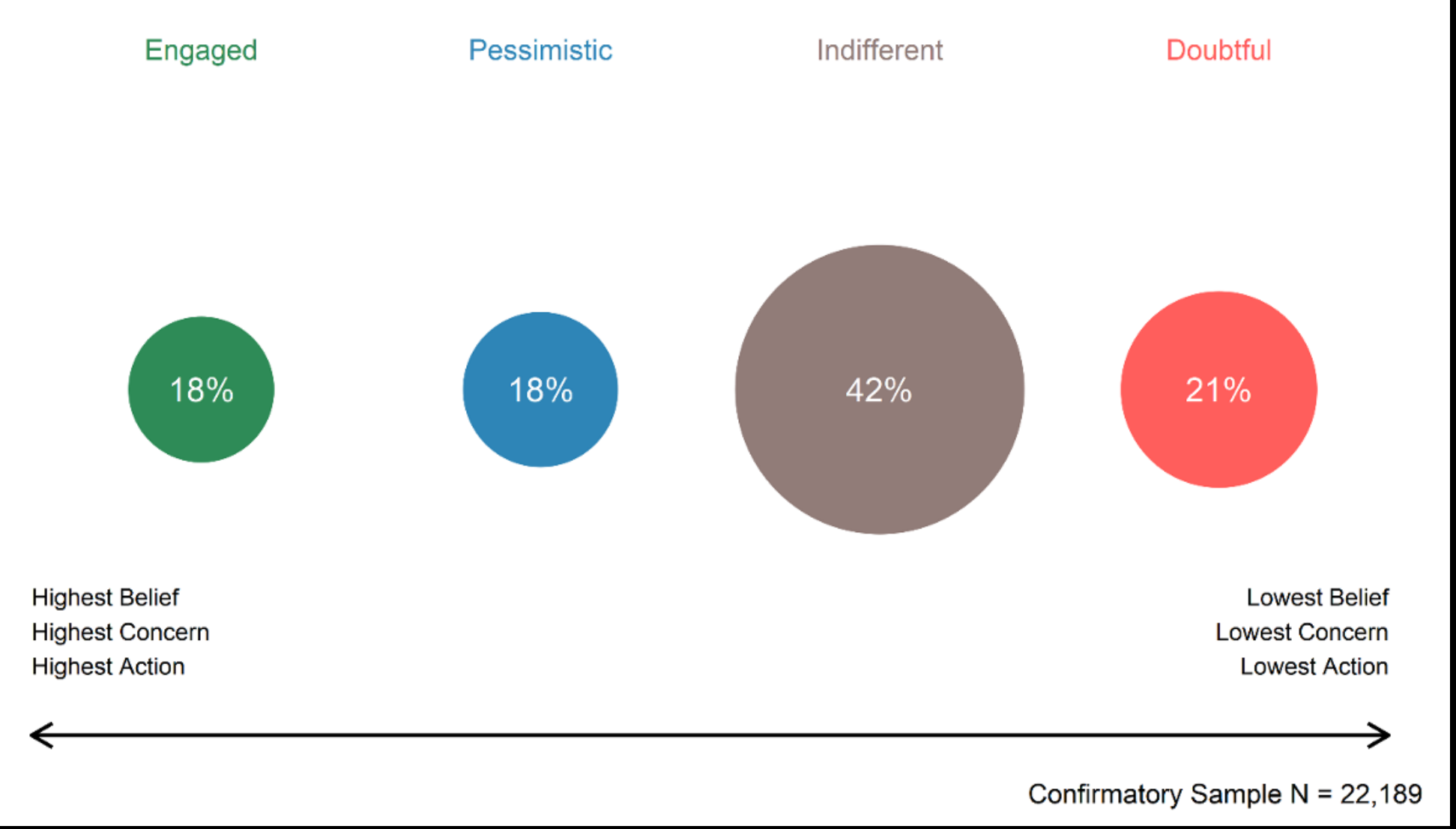
Anna Castiglione[1], Cameron Brick[2], Stefanie Holden[1], Ella Miles-Urdan[1] and Adam R. Aron[1]



Anna Castiglione, MA

ROYAL SOCIETY OPEN SCIENCE

- Registered Report
- Longitudinal
- Effortful intervention (12 long videos)
- Objective measure of activism

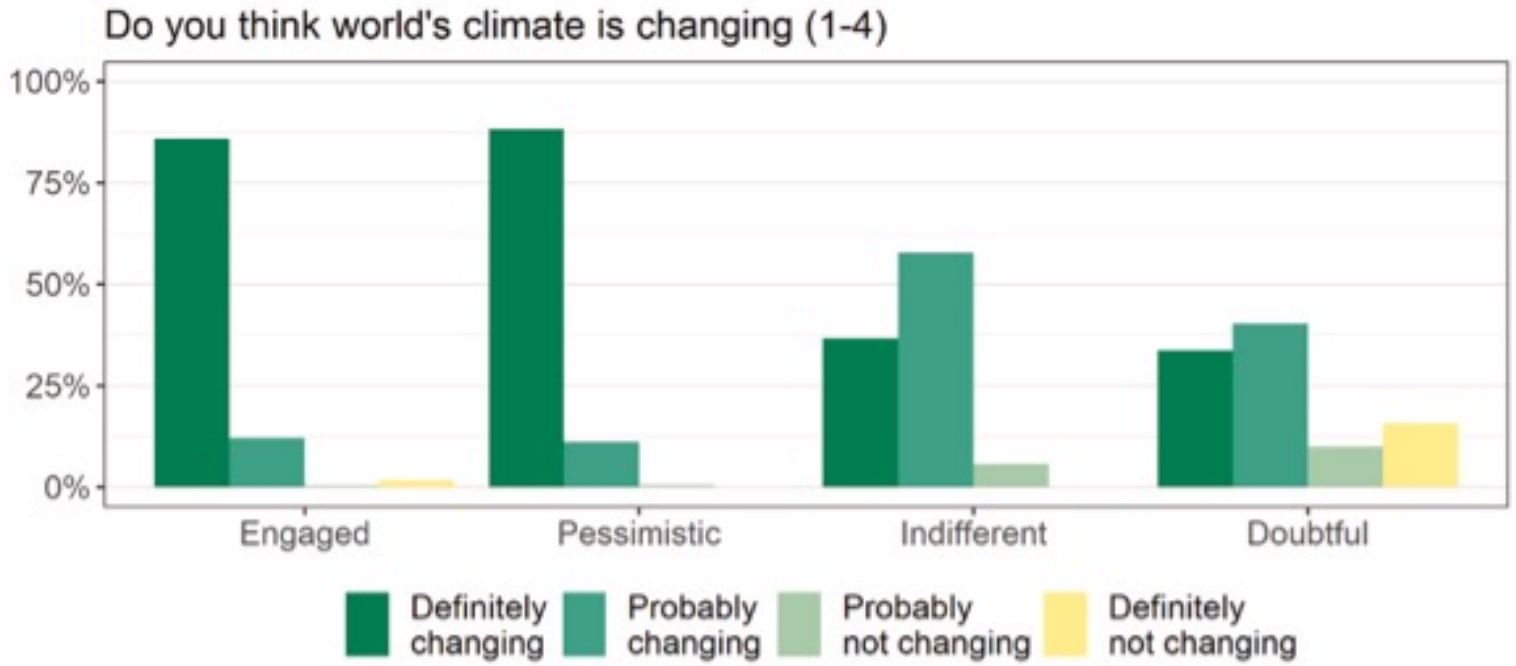




Ondřej Kácha, MPhil

Four Europes: Climate Change Attitudes

Kacha et al., 2022, *Journal of Environmental Psychology*


Do you think world's climate is changing (1-4)
100%
75%
50%
25%
0%
Engaged
Pessimistic
Indifferent
Doubtful
Definitely changing
Probably changing
Probably not changing
Definitely not changing

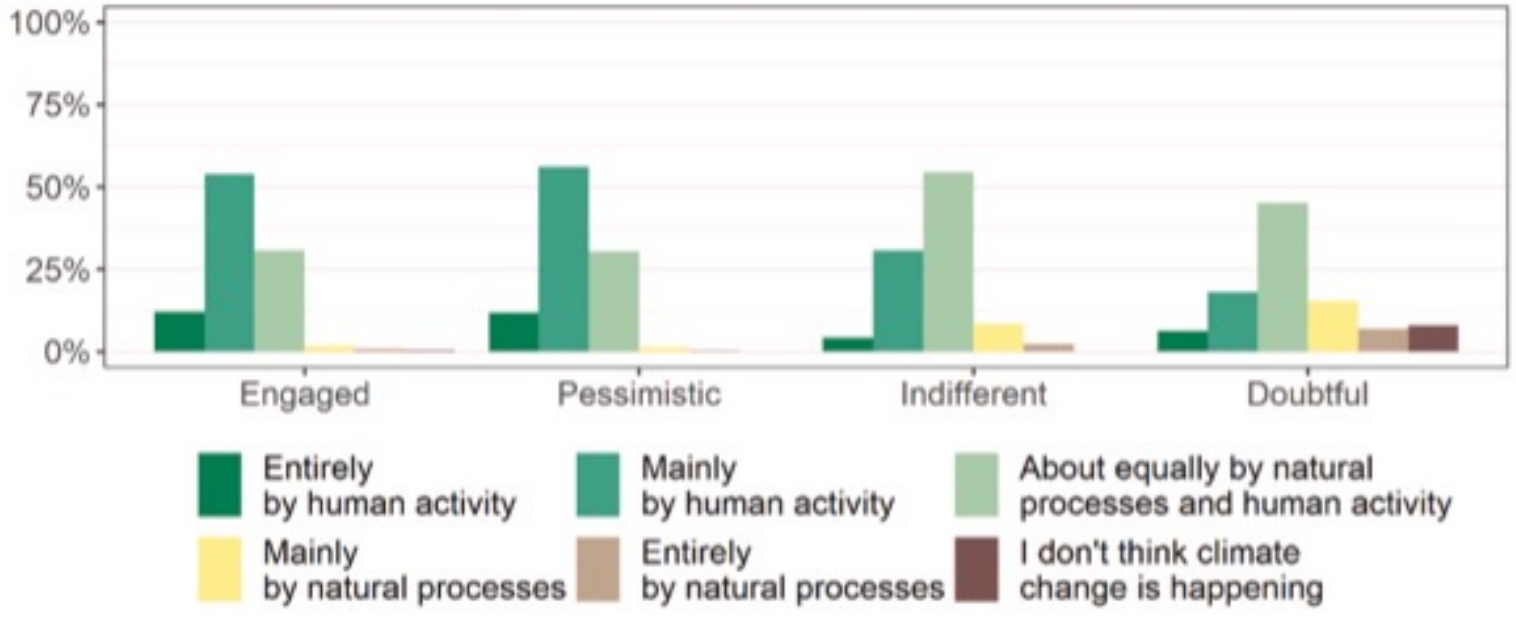
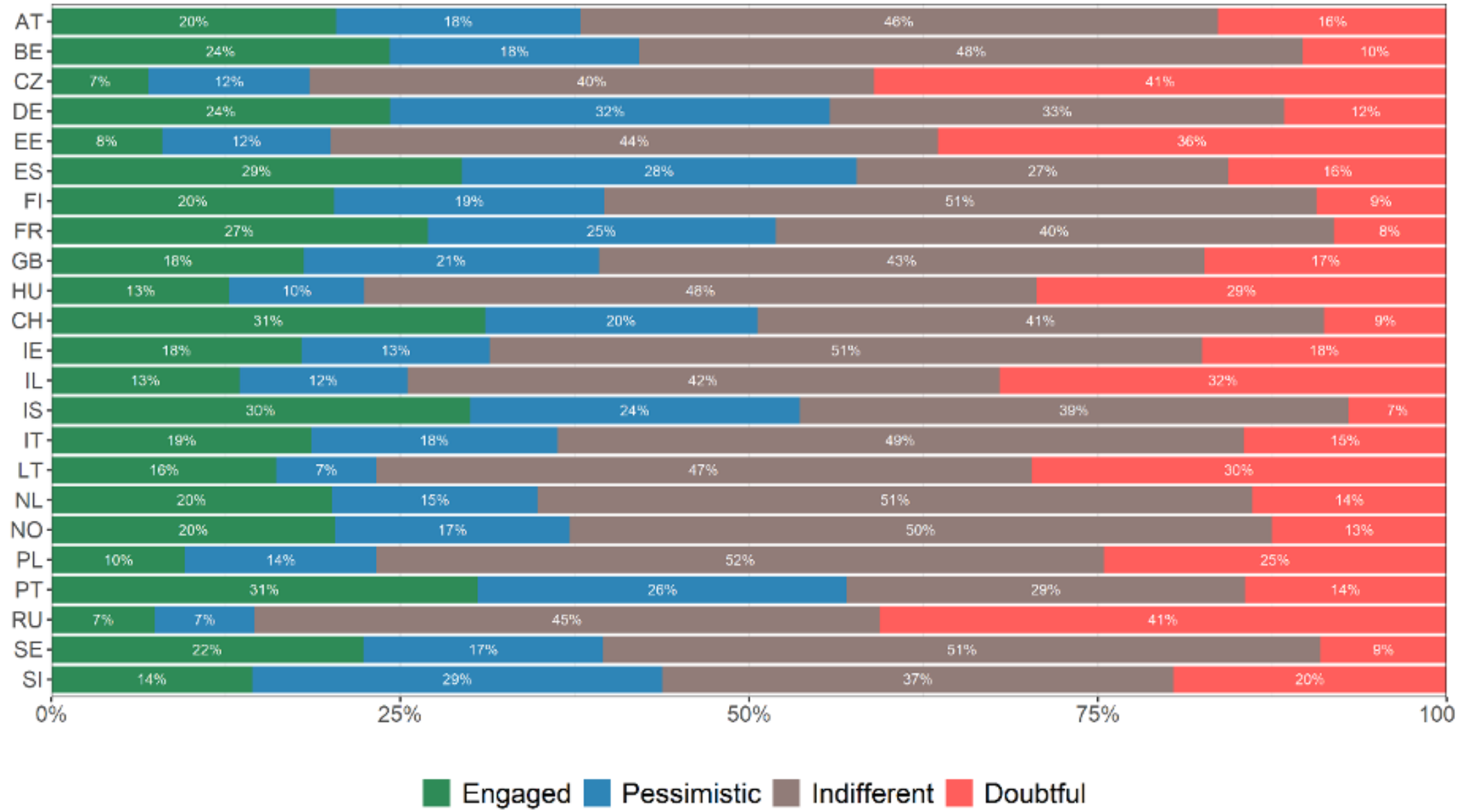

Climate change caused by natural processes, human activity, or both (1-5)
100%
75%
50%
25%
0%
Engaged
Pessimistic
Indifferent
Doubtful
Entirely by human activity
Mainly by human activity
About equally by natural processes and human activity
Mainly by natural processes
Entirely by natural processes
I don't think climate change is happening

Figure S1

Class Proportions by Country



Moral Environmentalism Scale

Journal of Environmental Psychology 81 (2022) 101780

Contents lists available at ScienceDirect

Journal of Environmental Psychology

journal homepage: www.elsevier.com/locate/jep

Measuring pro-environmental orientation: Testing and building scales

Aaron C. Sparks [a,*], Phillip J. Ehret [b], Cameron Brick [c]



Dr Aaron Sparks

Free re-use: see cameronbrick.com

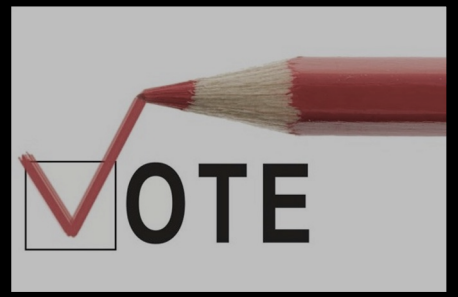
Pro-Environmental Behavior











PROBLEM

Self-reported pro-environmental behavior only explains 21% of the variance in objective behavior (meta-analysis: Kormos & Gifford, 2014)

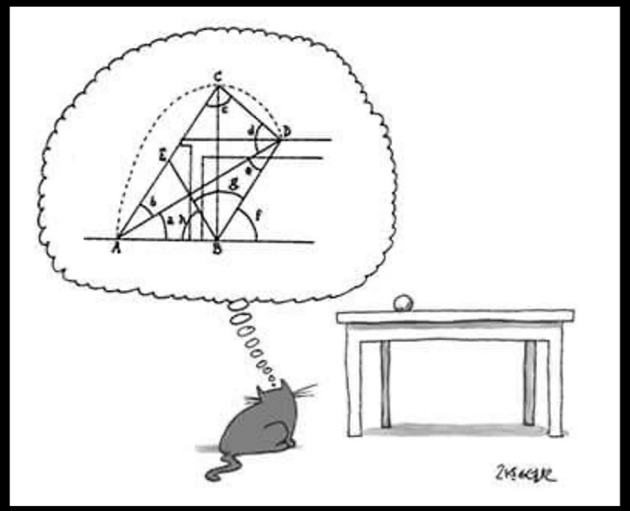


Impact-focused Conservation

Nielsen, K. S., Cologna, V., Lange, F., Brick, C., & Stern, P. C. (2021). The case for impact-oriented environmental psychology. *Journal of Environmental Psychology*, *74*, 101559. 10.1016/j.jenvp.2021.101559. PDF

1. Identify behaviors with high impact
2. Map contexts and actors
3. Evaluate non-psychological determinants
4. Extend to other behaviors
5. Synthesize and theorize

Theory vs. impact?



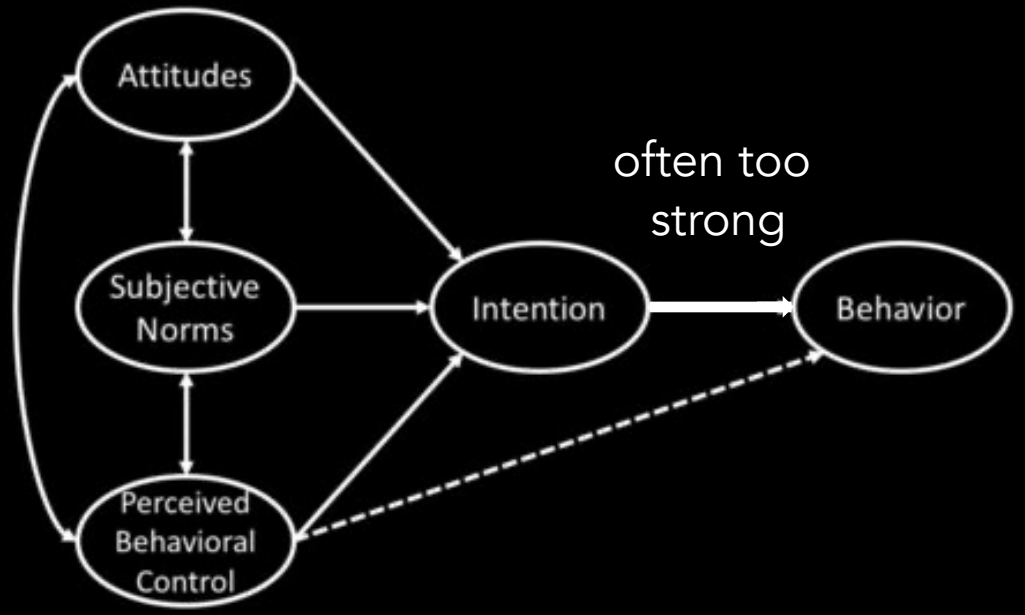
Both are important and compatible! But not exchangeable.

E.g., how residents think about frequent pro-env. actions is a poor measure of household resource use.

Take-away: Match the outcome measure to the research question

TENSION

How should we measure pro-environmental behavior?



- Shared measurement variance
- Item selection driven by measurement ease
  a. Frequency (1 *never*, 5 *always*)
  b. normal distribution

- Specific behaviors
- L water, kWh energy, kg CO_2

Classic env psych

Impact

n = 4,591
German, Poland,
Sweden, US

What predicts pro-environmental clothing behavior?

Outcomes

1. Environmental Apparel Scale (EAC), e.g., "[I buy] clothing made from organically grown natural fibers"
2. Greenhouse gas emissions from purchasing and washing (life cycle assessment)

Psychological predictors

Goals, self-efficacy, awareness of need to address the env. consequences of clothing, ascription of responsibility to address the env. consequences through one's personal clothing consumption, attitudes, intentions, personal norms, social norms, perceived behavioral constraints

Nielsen et al. 2022, *Nature Sustainability*
PDF and citation: cameronbrick.com

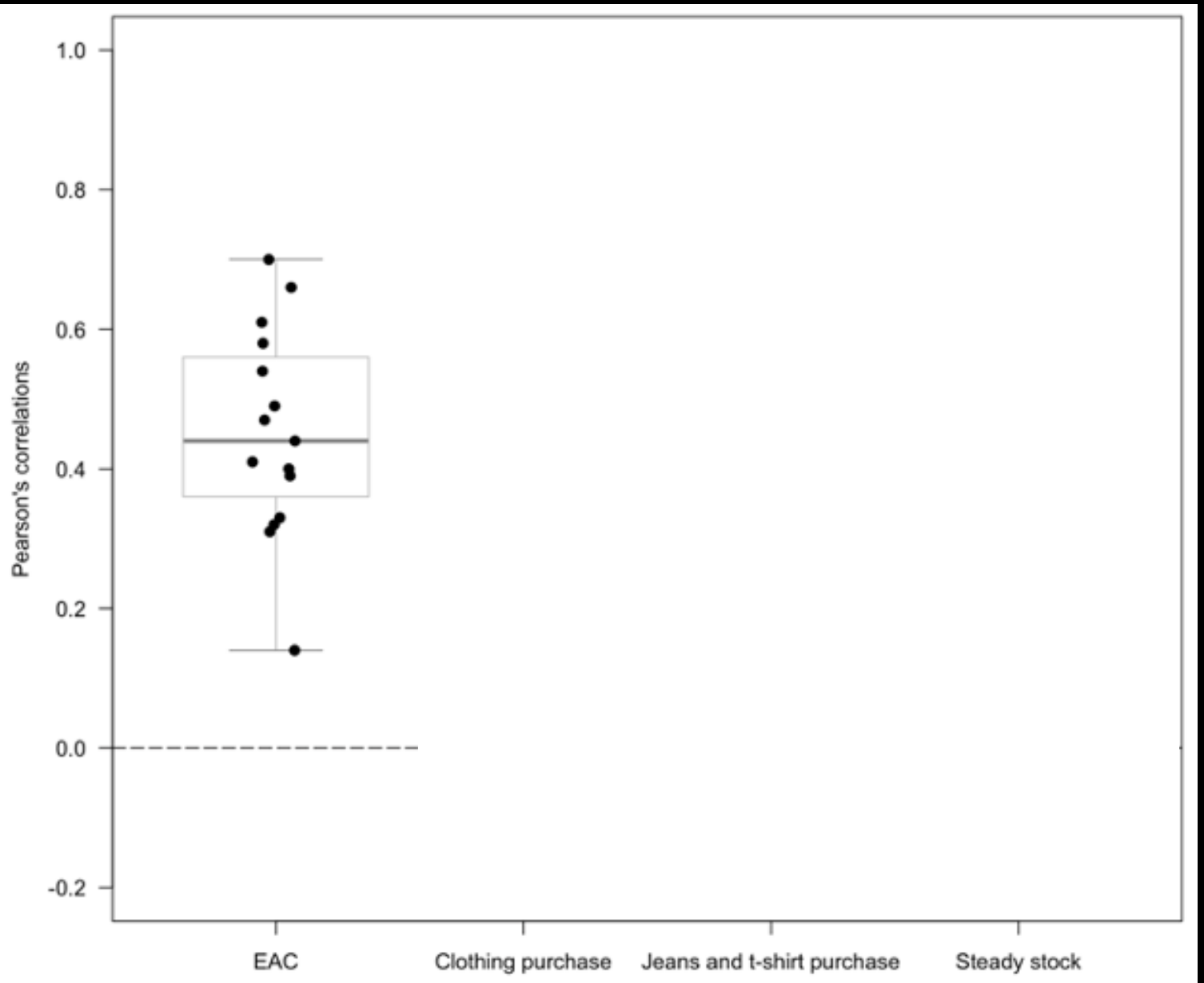


Fig. 1. Correlations between psychological factors and clothing behaviors.

OPEN QUESTIONS

Which pro-environmental behaviors are well-predicted by psychological factors?

When intentions decouple from impact, which outcome should we prioritize for testing theory?

Nielsen et al. 2022, *Nature Sustainability*
PDF and citation: cameronbrick.com

WBP Research Group
UC Santa Barbara Water Use, Behavior, and Policy

JOURNAL OF
POLICY ANALYSIS
AND
MANAGEMENT

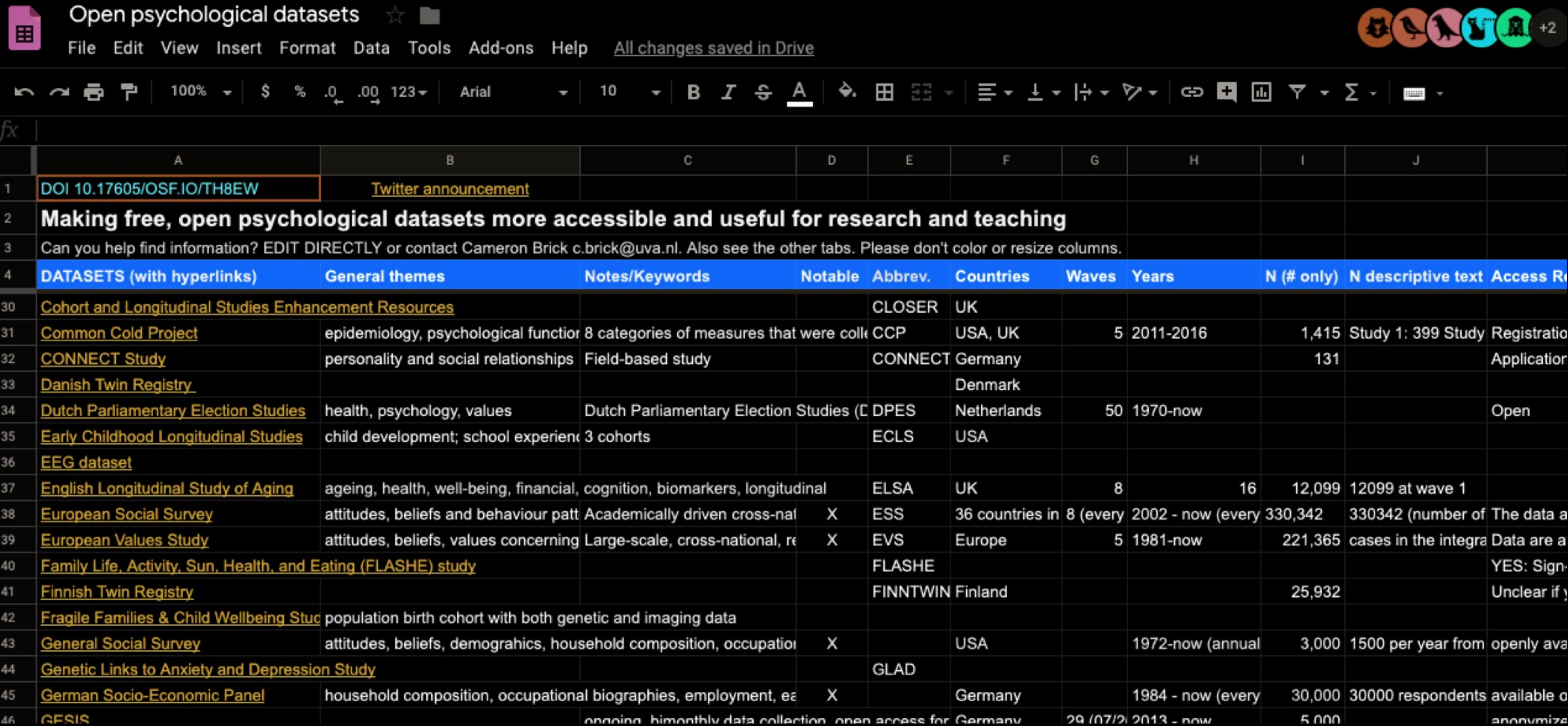
How managers can reduce household water use through communication: A field experiment



Dr Heather Hodges



List of free data: bit.ly/2FifRWp



Open psychological datasets

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

	A	B	C	D	E	F	G	H	I	J	
1	DOI 10.17605/OSF.IO/TH8EW	Twitter announcement									
2	**Making free, open psychological datasets more accessible and useful for research and teaching**										
3	Can you help find information? EDIT DIRECTLY or contact Cameron Brick c.brick@uva.nl. Also see the other tabs. Please don't color or resize columns.										
4	**DATASETS (with hyperlinks)**	**General themes**	**Notes/Keywords**	**Notable**	**Abbrev.**	**Countries**	**Waves**	**Years**	**N (# only)**	**N descriptive text**	**Access R**
30	Cohort and Longitudinal Studies Enhancement Resources				CLOSER	UK					
31	Common Cold Project	epidemiology, psychological functior	8 categories of measures that were colle		CCP	USA, UK	5	2011-2016	1,415	Study 1: 399 Study	Registratio
32	CONNECT Study	personality and social relationships	Field-based study		CONNECT	Germany			131		Applicatior
33	Danish Twin Registry					Denmark					
34	Dutch Parliamentary Election Studies	health, psychology, values	Dutch Parliamentary Election Studies (D		DPES	Netherlands	50	1970-now			Open
35	Early Childhood Longitudinal Studies	child development; school experienc	3 cohorts		ECLS	USA					
36	EEG dataset										
37	English Longitudinal Study of Aging	ageing, health, well-being, financial,	cognition, biomarkers, longitudinal		ELSA	UK	8	16	12,099	12099 at wave 1	
38	European Social Survey	attitudes, beliefs and behaviour patt	Academically driven cross-nat	X	ESS	36 countries in	8 (every	2002 - now (every	330,342	330342 (number of	The data a
39	European Values Study	attitudes, beliefs, values concerning	Large-scale, cross-national, re	X	EVS	Europe	5	1981-now	221,365	cases in the integra	Data are a
40	Family Life, Activity, Sun, Health, and Eating (FLASHE) study				FLASHE						YES: Sign-
41	Finnish Twin Registry				FINNTWIN	Finland			25,932		Unclear if y
42	Fragile Families & Child Wellbeing Stud	population birth cohort with both genetic and imaging data									
43	General Social Survey	attitudes, beliefs, demograhics, household composition, occupatior		X		USA		1972-now (annual	3,000	1500 per year from	openly ava
44	Genetic Links to Anxiety and Depression Study				GLAD						
45	German Socio-Economic Panel	household composition, occupational biographies, employment, ea		X		Germany		1984 - now (every	30,000	30000 respondents	available o
46	GESIS		ongoing, bimonthly data collection, open access for			Germany	29 (07/2	2013 - now	5,000		anonymize

new

Global Environmental Psychology

- Free open-access journal for authors and readers
- Funding: PsychOpen GOLD, Leibniz Institute for Psychology (ZPID)
- Theoretical and applied work on the relationship between people and their environment
- Quantitative and qualitative

gep.psychopen.eu

new

Global Environmental Psychology

Open Science	Diversity
Show your practices (TOP guidelines)	Increase representation of authors, samples, and methods
Transparent processes (e.g., published reviews)	Diverse editorial board
Additional open science badges	ECR roles Platform for writing and method support

Questions?
editors@gep.psychopen.eu







Thank you

c.brick@uva.nl

@CameronBrick