
Exploring students' conservation views

Using the Future of Conservation statements in a multi-university before after study

Supervisory team:

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THE UNIVERSITY of EDINBURGH
School of GeoSciences



Overview

- **Context:** brief outline of my wider PhD project and where the FOC statements fit in
 - **Before-after study:** the methods and use of FOC statements
 - **Summary feedback:** ways in which FOC analysis delivered back to participants
 - **Going forward:** plans and potential research avenues
-

PhD research project

Investigating the role of higher education in shaping views and skills of conservation students

ch1. content

What content is being taught?

ch2. skills

What skills do educators aim to develop?

ch3. motives + views

What are students' motives and views on entering education?

ch4. before-after

Do students' views change & if so, to what extent linked to student/education factors?

Preparing students for wicked conservation problems

WICKED PROBLEMS

Defy simple definition

No clear end, no 'stopping' rule

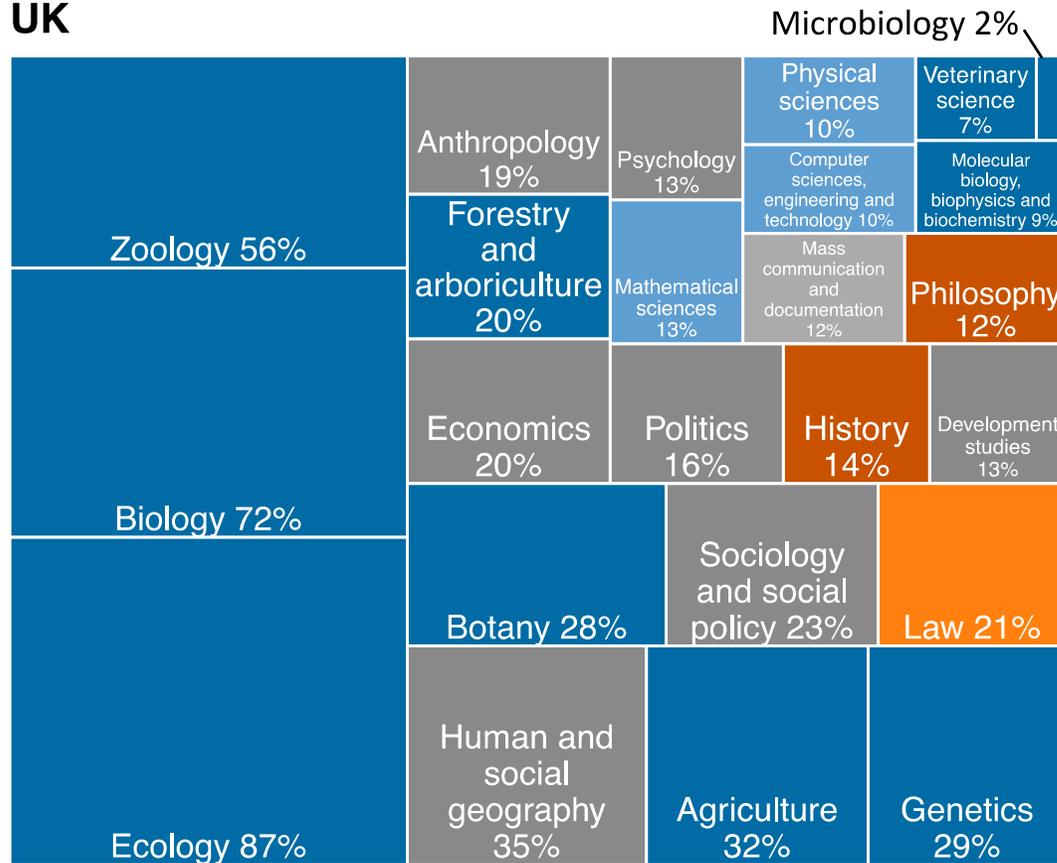
Uncertainty in risks and consequences

Divergent values and perspectives

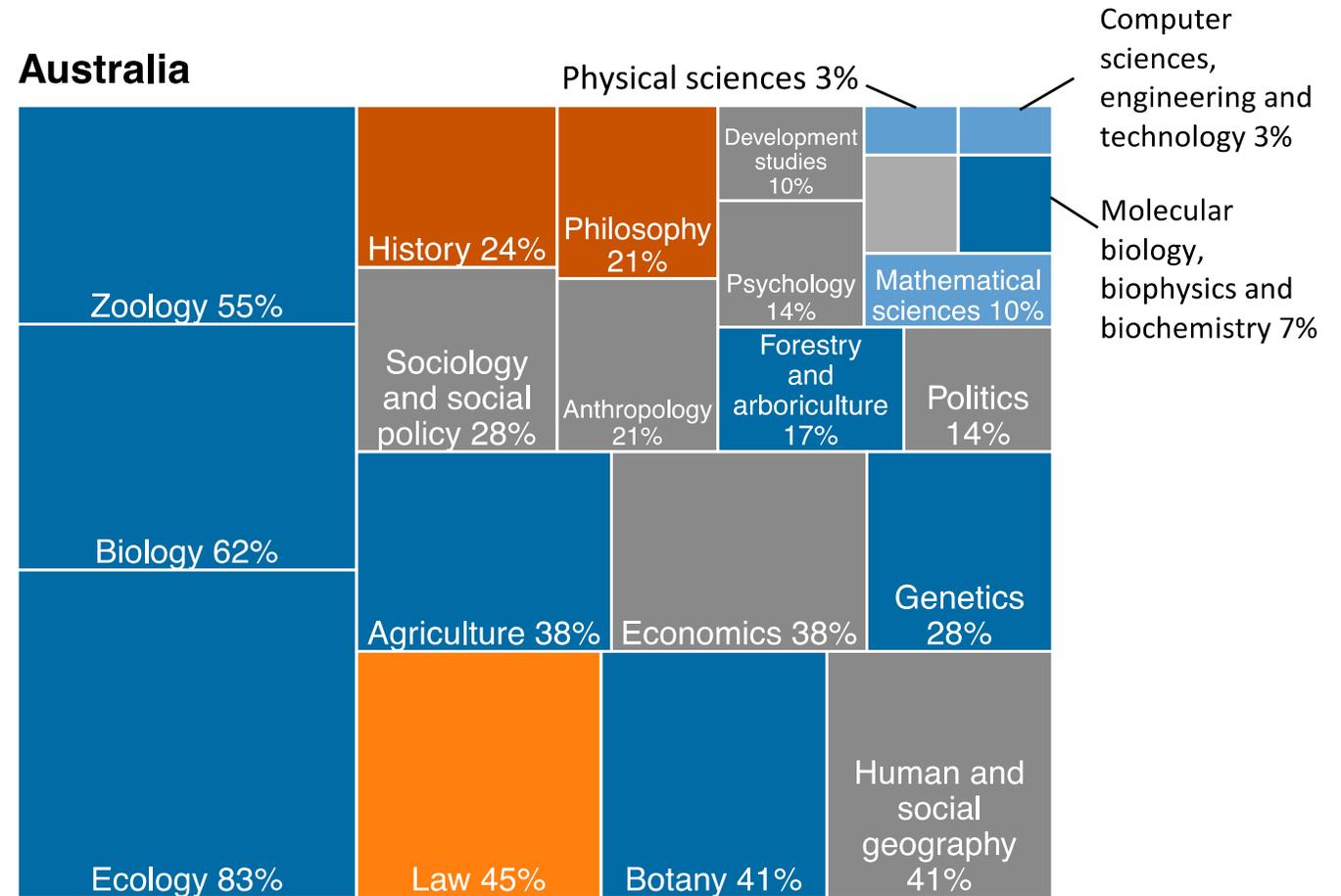
Demands boundary-spanning and integration skills

chl. content

UK



Australia



Disciplinary category

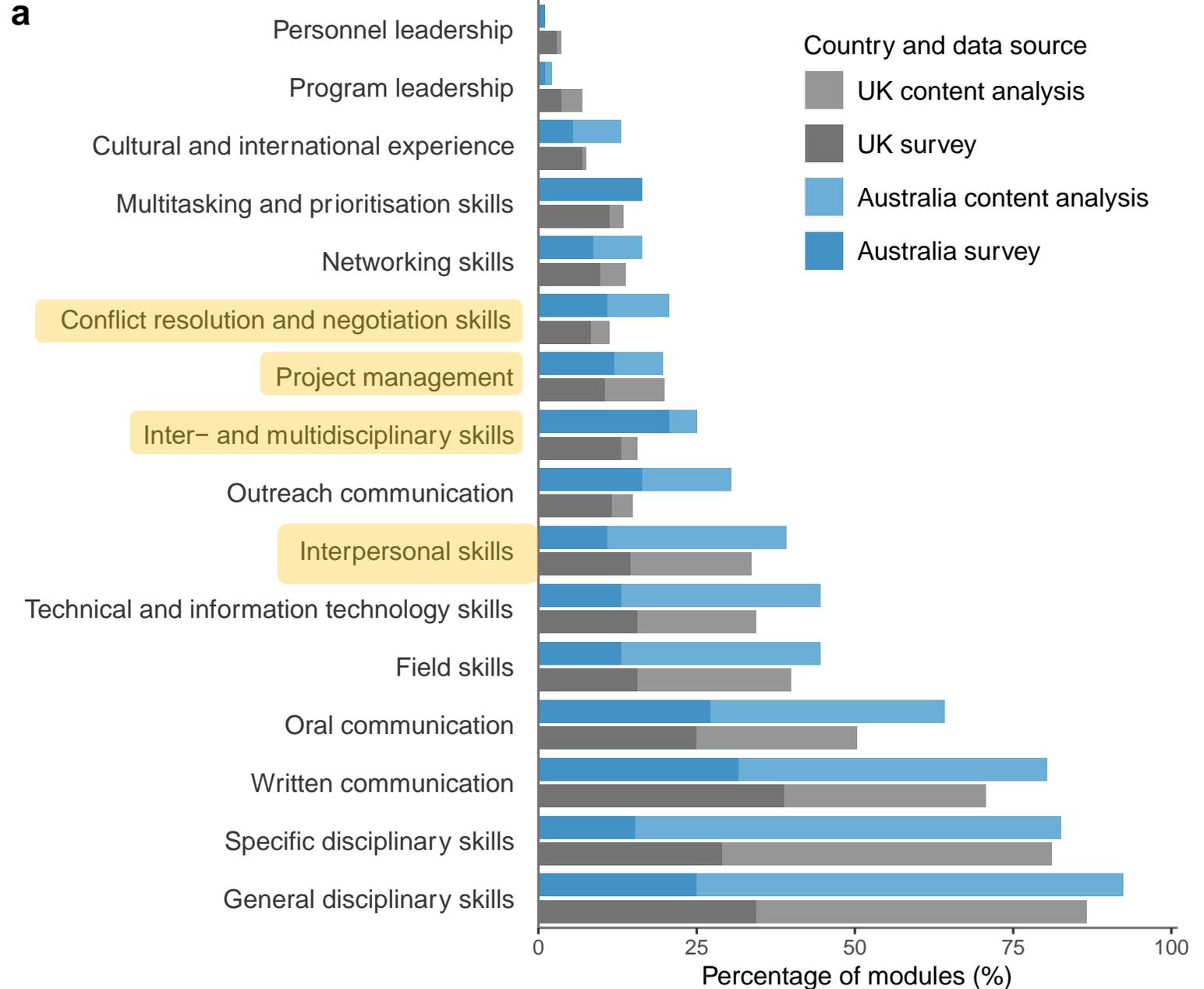
- Biological sciences
- Social sciences
- Law
- Non-biological sciences
- Humanities
- Mass communication and documentation

- Percentages out of 117 UK conservation modules and 29 Australian conservation modules

ch2. skills

Needed for tackling wicked problems & essential for non-academic conservation careers

* Hopefully 'coming soon' to a journal near you!



Preparing students for wicked conservation problems

WICKED
PROBLEMS

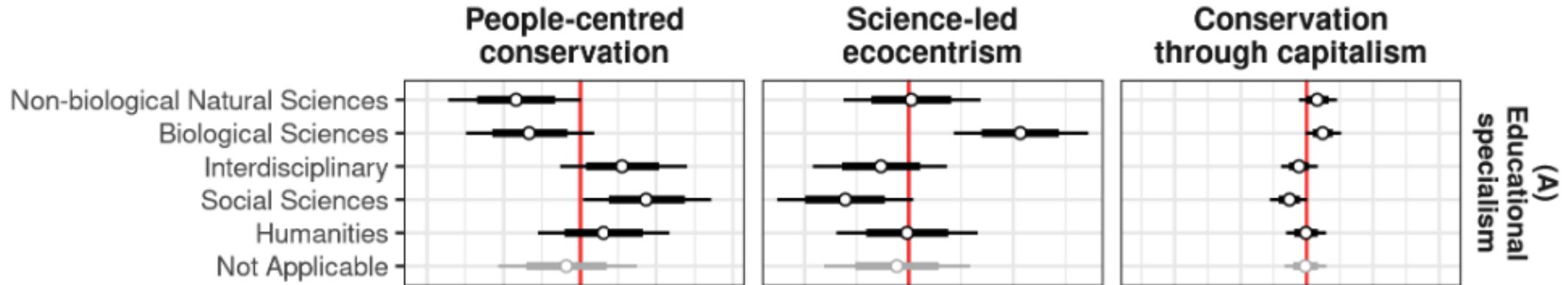
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Divergent values and perspectives

Following on from FOC findings:



Cropped figure from Loque-Lora et al., (2022)

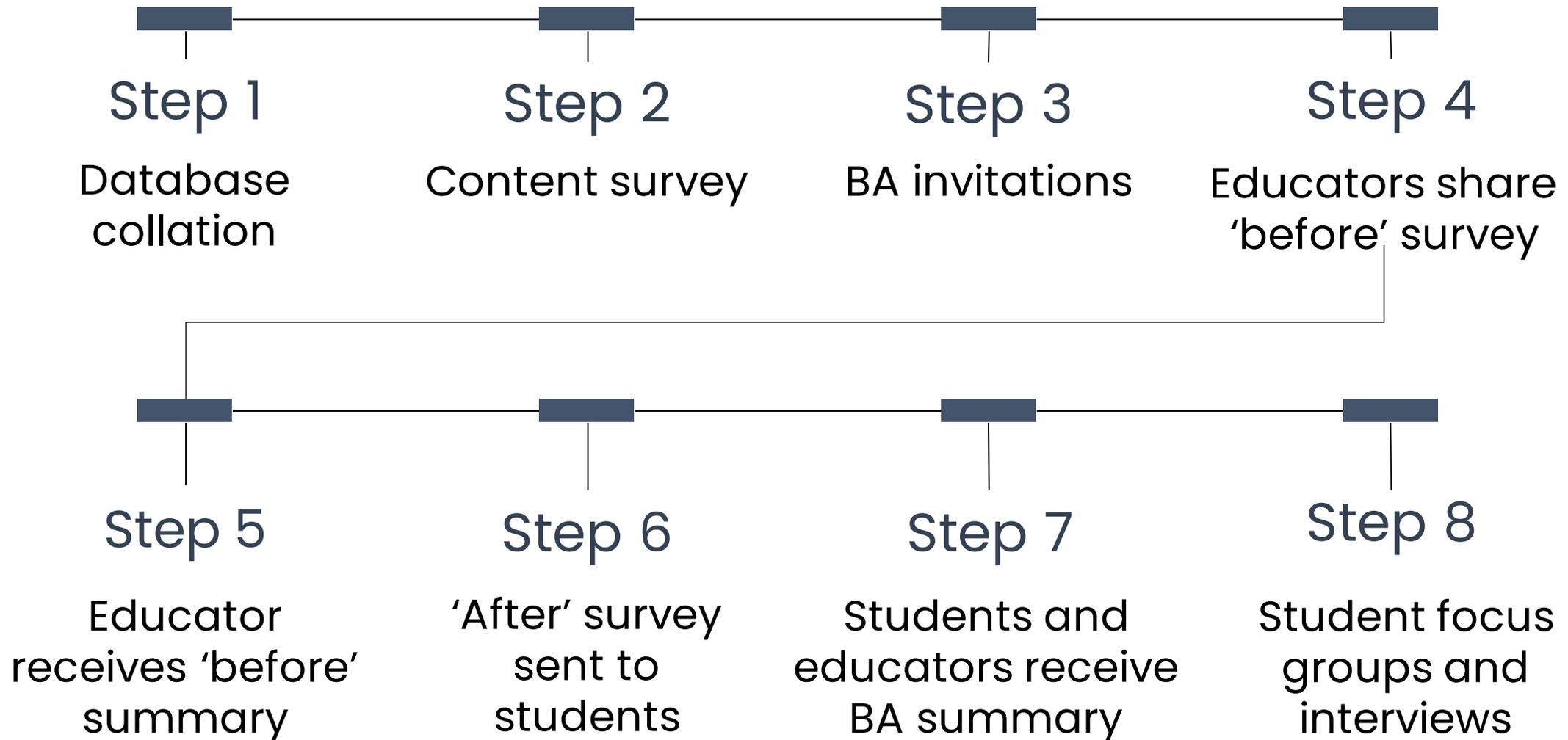
My research trying to unpick some of these findings:

- investigate whether differences in dimension scores by student and education characteristics

4.

**Before-
after survey
study**

Before-after study steps

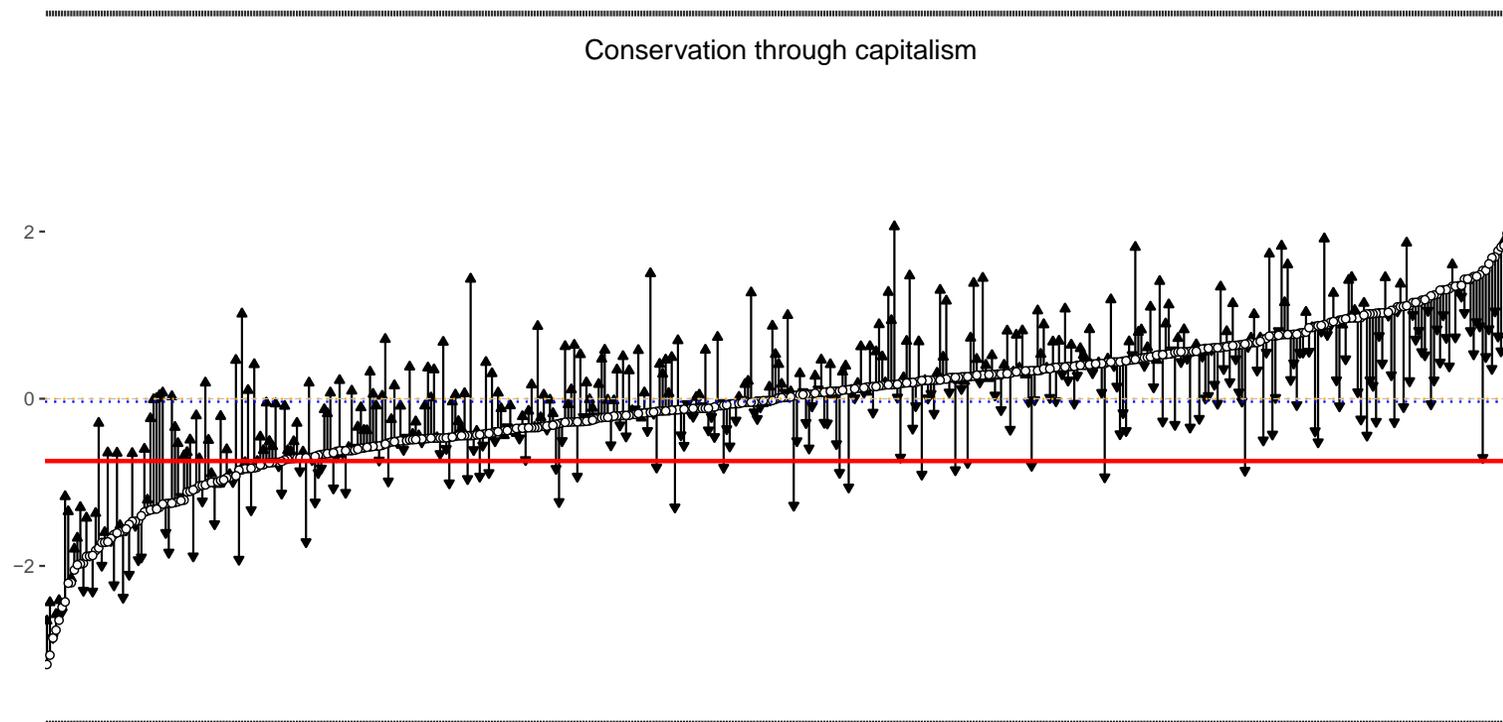


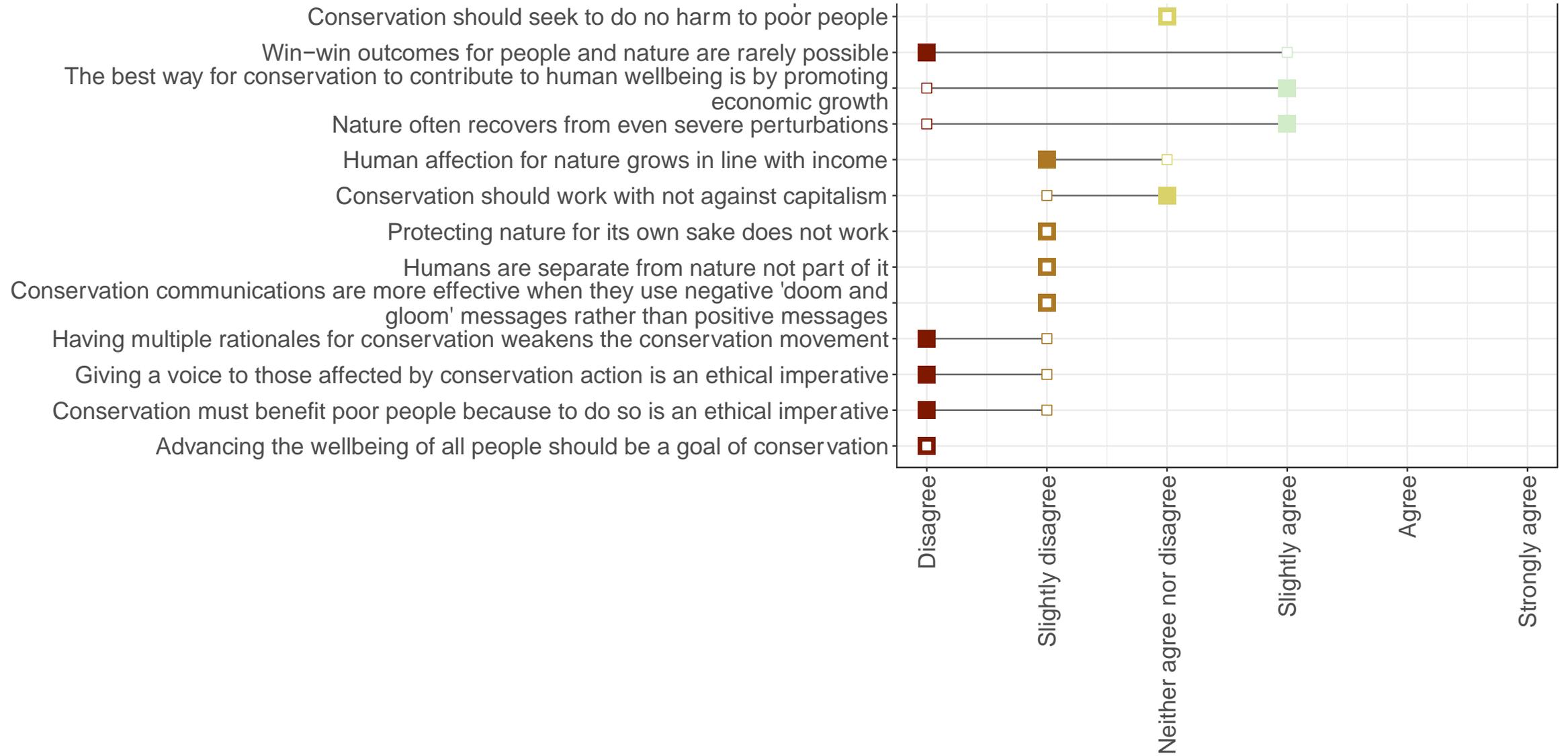
Ongoing before-after analysis:

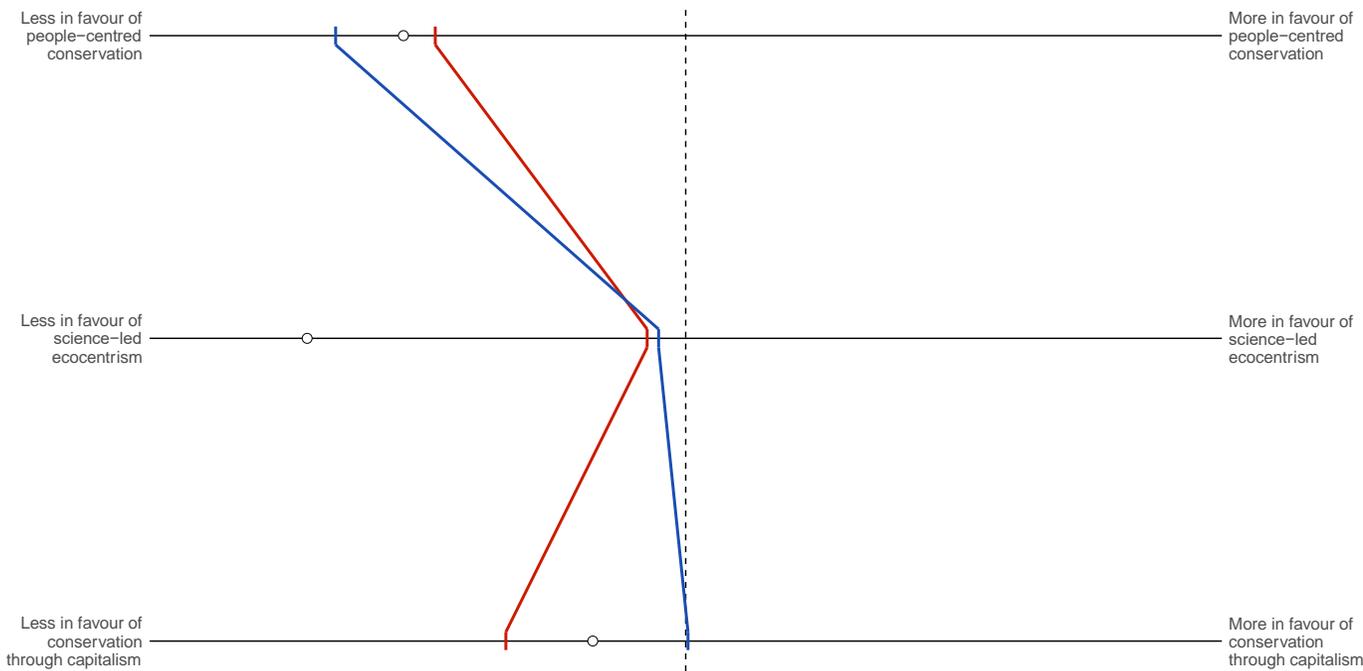
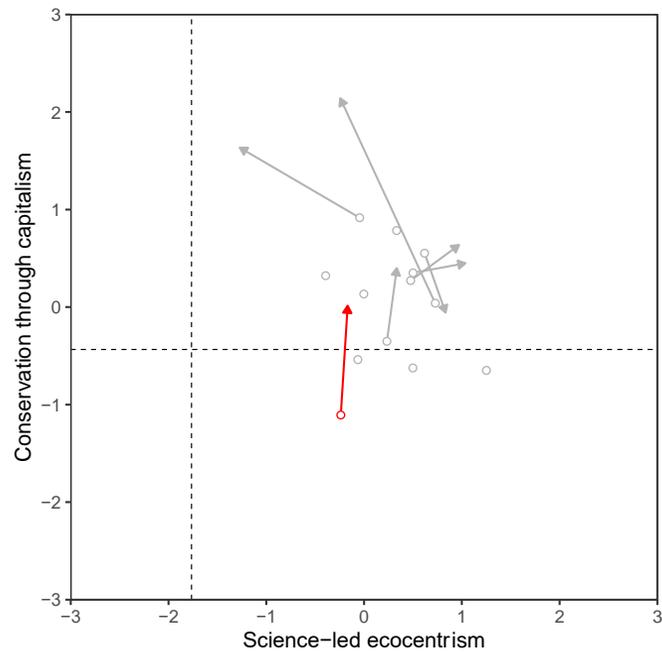
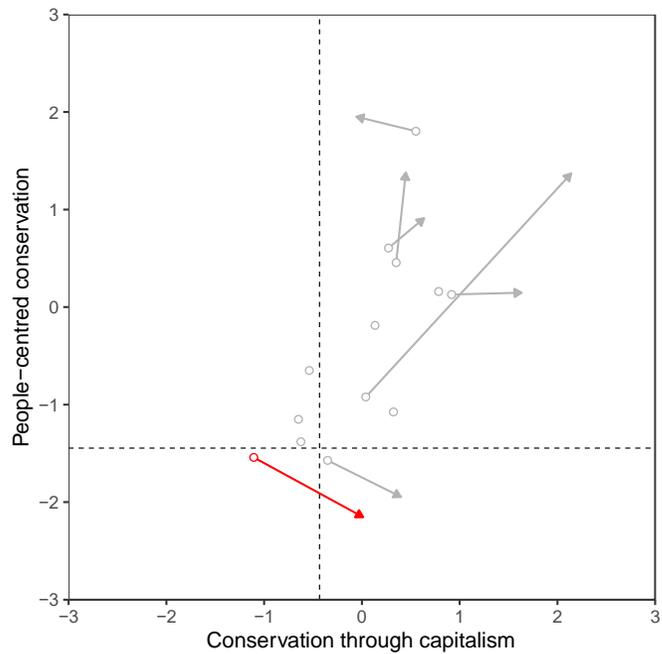
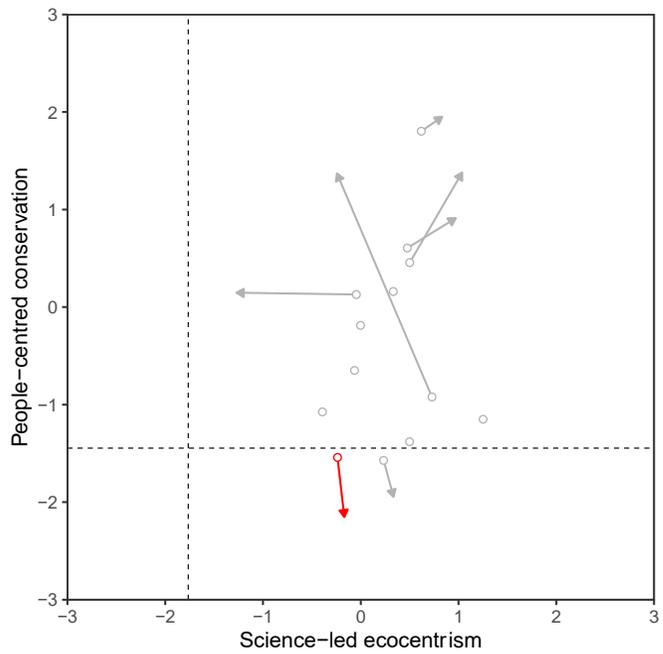
Fitting linear mixed effect models

+

Coding factors perceived as having an important influence on their conservation thinking







As a tool for individual reflection...

"I absolutely love to be able to see the difference. See that a lot of my answers didn't change and what did change. It was really interesting to then look back and see which question it was, and to understand how my views changed. That was really useful as a tool. I've looked at the results a couple of times because they're just really interesting."

"...it's really helpful to know. Oh, my view has shifted a little bit towards this kind of position. I would say it's really helpful. I would love to have like a regular assessment to myself, like maybe every year, like if I tend to work in conservation organizations after my studies."



Going forward ...

Ch4: analysis of before -> after dimension scores and association student/education characteristics

- Aspects students perceive as playing an important role in influencing their conservation thinking
- Tools and approaches to elicit open and honest discussion about different values and frames of reference
- Reflection as a crucial aspect of transformative learning

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The Restoration Partnership Development toolkit: using tools from social sciences to build partnerships for landscape restoration

Edinburgh Forests and Landscapes Network, 6th December 2023

Dr Annette Green

'Cumbria Connect'
Cumbria case study

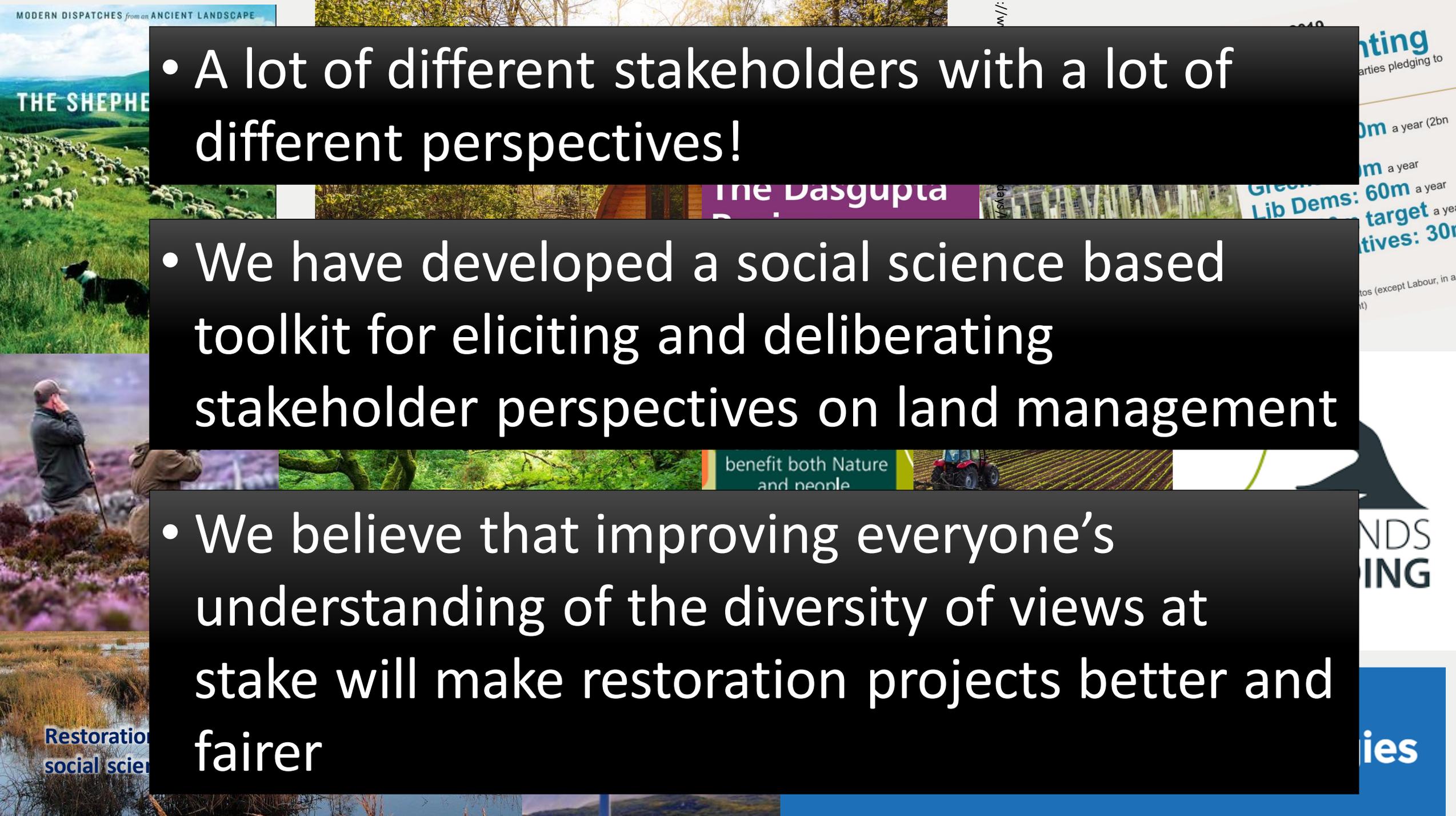
'Wilder Marches' (Welsh
borders) case study

Affric/Kintail Highlands
case study

Highlands deer
management debates
(with Callum Leavey-Wilson)

*Empirical data
and lessons
from case
studies inform...*

Toolkit for
mapping and
deliberating
restoration project
stakeholder
perspectives



• A lot of different stakeholders with a lot of different perspectives!

• We have developed a social science based toolkit for eliciting and deliberating stakeholder perspectives on land management

• We believe that improving everyone's understanding of the diversity of views at stake will make restoration projects better and fairer

RPD toolkit: underlying rationale

Why do we think that exploring and understanding stakeholder perspectives can make restoration projects better and fairer?

Conflict in conservation often stems from unmet psychological or emotional needs

“Conservation conflicts often serve as proxies for conflicts over more fundamental, non-material social and psychological unmet needs—including status and recognition, dignity and respect, empowerment, freedom, voice and control [...]—which are not addressed by [...] technical fixes or approaches.”

Madden and McQuinn (2014), Conservation’s Blind Spot: The Case for Conflict Transformation in Wildlife Conservation

Restoration Partnership Development: social science tools for building landscape restoration partnerships

Madden, Francine, and Brian McQuinn. “Conservation’s Blind Spot: The Case for Conflict Transformation in Wildlife Conservation.” *Biological Conservation* 178 (October 1, 2014): 97–106.

<https://doi.org/10.1016/j.biocon.2014.07.015>.



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RPD toolkit: underlying rationale

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Survey for perspective elicitation PLUS workshop for perspective deliberation:

- **Address psychological and emotional needs to be heard, seen, recognised**
- **Encourage consideration of others’ perspectives (enhance mutual understanding)**
- **Foster a sense of openness and curiosity between stakeholders (build trust)**



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RPD toolkit: Cumbria case study

Case study: Cumbria Connect

- ELSP Restoration Landscape project
- Eastern Cumbria
- RSPB (project lead), Natural England, United Utilities and Lowther Estate
- Restoration of 33,000 ha English upland landscape
- Farmers as a major stakeholder group



Cumbria Connect

United Kingdom



Patrick Neaves

<https://www.endangeredlandscapes.org/project/cumbria-connect/>



**Restoration Partnership Development:
social science tools for building landscape restoration partnerships**



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RPD toolkit: developing the survey in Cumbria

Cumbria Connect

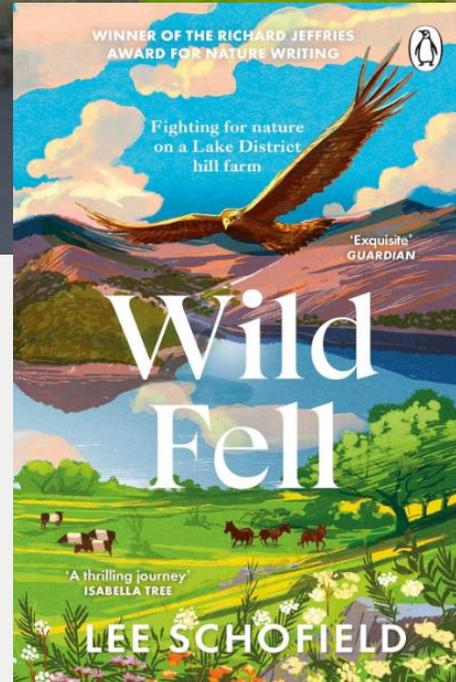
United Kingdom



The Lake District's world heritage site status is a betrayal of the living world
George Monbiot



The designation protects sheep farming, and nothing else. This blatant assault on nature turns the area into a Beatrix Potter-themed museum



As a shepherd, I know we have not 'sheepwrecked' Britain's landscape
Andrea Meanwell

Environmentalists are wrong to say that excess sheep are ruining the Lake District. Generations of families like mine have worked to maintain a delicate ecosystem



**Restoration Partnership Development:
social science tools for building landscape restoration partnerships**

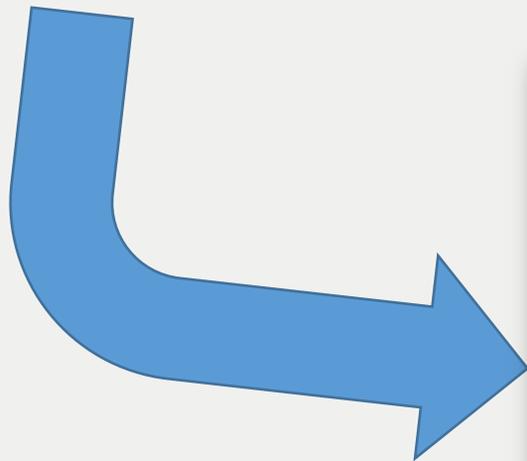


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RPD toolkit: developing the survey in Cumbria

Survey requirements:

- ✓ Needs to generate data that would help foster productive conversations in stakeholder workshops
- ✓ Short
- ✓ Online
- ✓ Simple format
- ✓ Useable (eventually) independently by non social scientists



Likert-based

Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RPD toolkit: developing the survey in Cumbria

Generating statements for the Likert-based survey

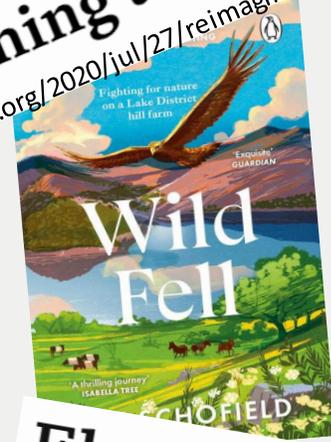
Primary data
from interviews



Secondary data
from lit review



Reimagining the Lake Dist
<https://theecologist.org/2020/jul/27/reimagining-lake-district>



UK agriculture + Add to myFT
**Upland farmers lose hope for
Brexit dividend**
Leaving the Common Agricultural Policy was meant to herald a new era

The Lake District's world heritage site status is a betrayal of the living world
George Monbiot



As a shepherd, I know we have not 'sheepwrecked' Britain's landscape
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**Elms: England greener farming
payments detail unveiled**
26 January
<https://www.bbc.co.uk/news/science-environment-64399799>

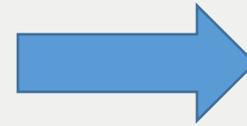
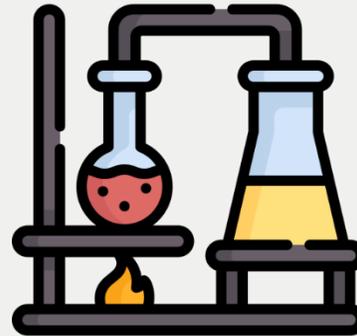
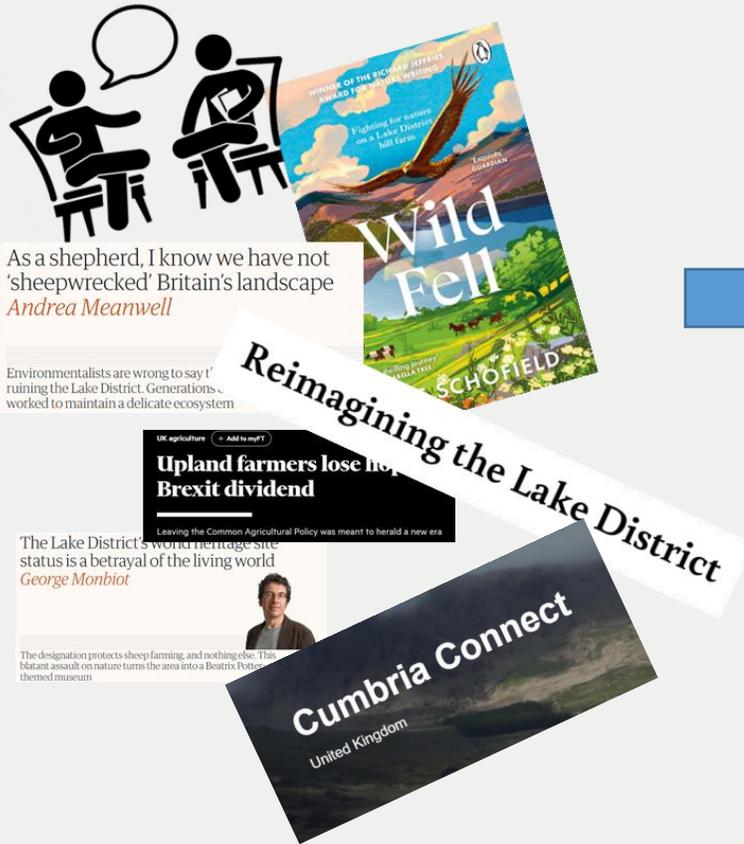
Restoration Partnership Development:
social science tools for building landscape restoration partnerships



URGH

RPD toolkit: developing the survey in Cumbria

Generating statements for the Likert-based survey



30 statements
about the most
salient issues in
restoration and
land management
in the Cumbria
Connect landscape

**Restoration Partnership Development:
social science tools for building landscape restoration partnerships**



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RPD toolkit: developing the survey in Cumbria

Example statement from Likert-based survey

2. *I would like to see more diverse tree species in this landscape* *

Disagree
strongly

Disagree

Neither
agree nor
disagree

Agree

Agree
strongly



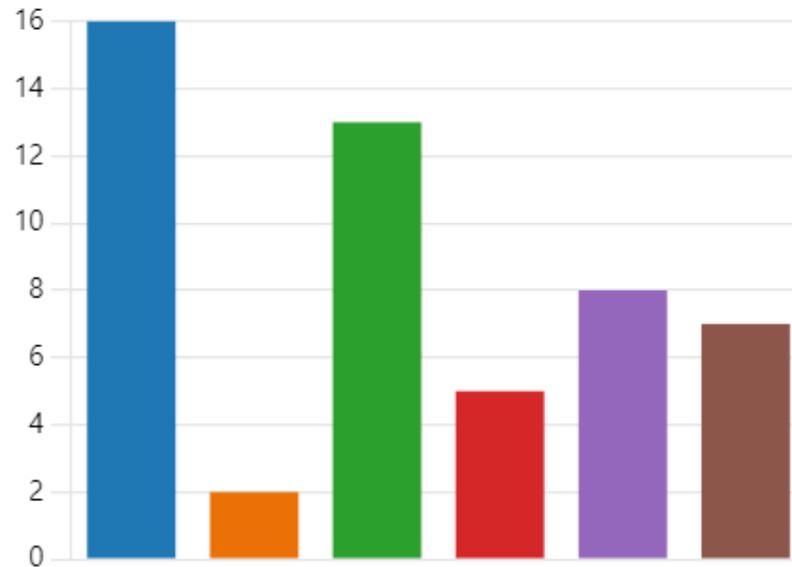
RPD toolkit: results from the Cumbria survey

Respondents (n=49) and their professional backgrounds

34. From the following options, please choose the ONE which best describes the sector in which you work

[More Details](#)

 Insights



Sampling

- Highly targeted
- Included people from constituent organisations of Cumbria Connect AND wider stakeholders
- NOT a representative sample

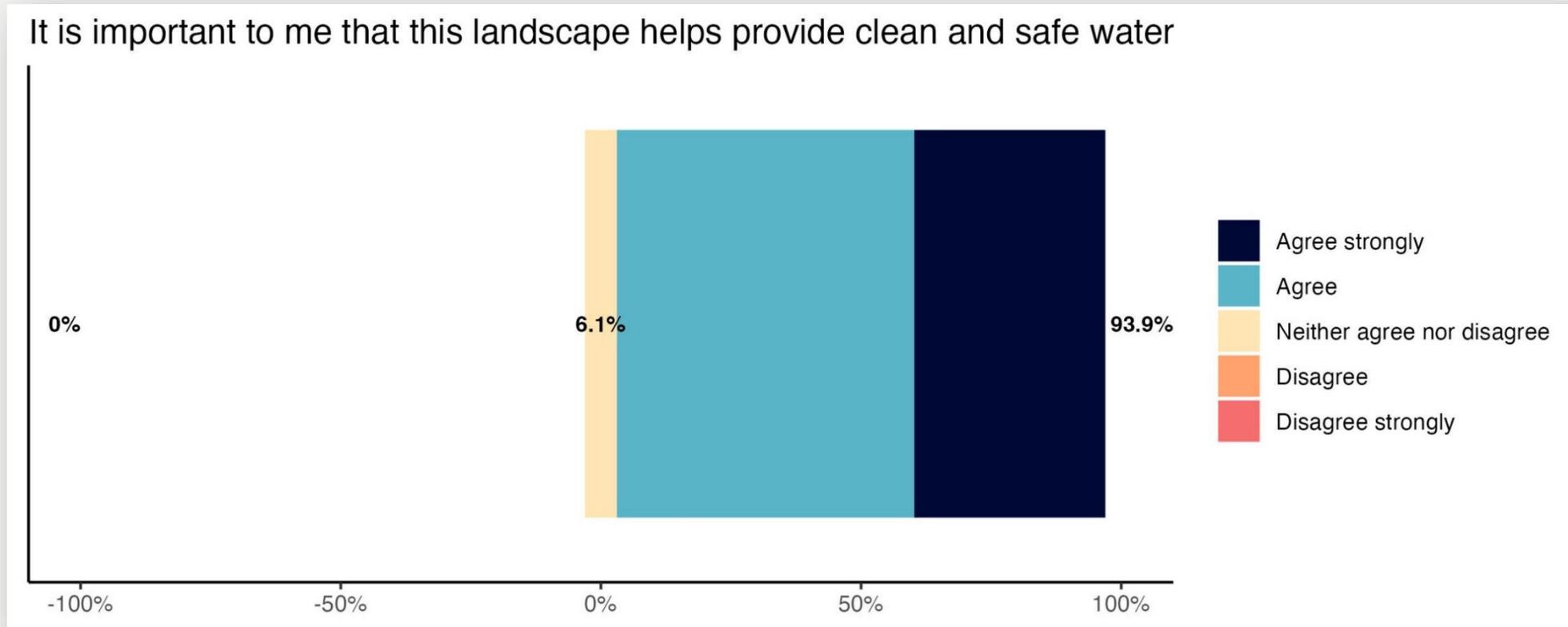
**Restoration Partnership Development:
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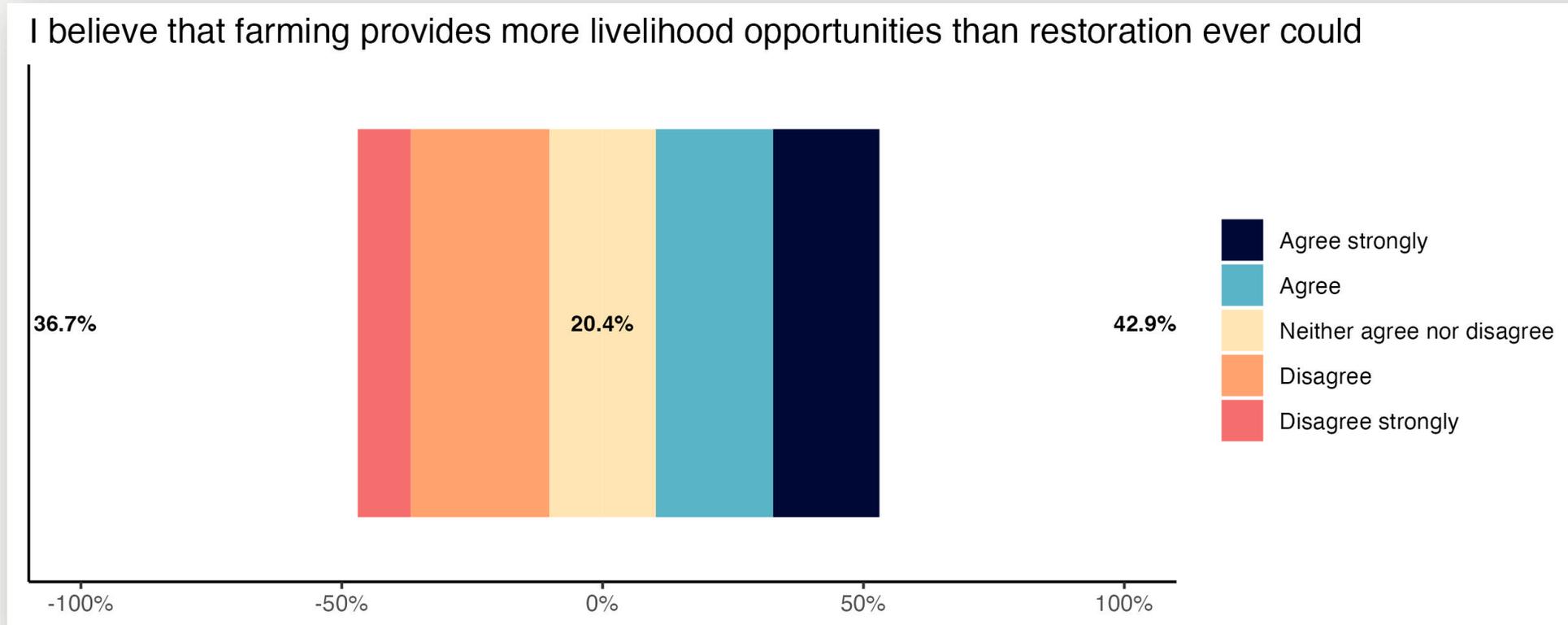
RPD toolkit: results from Cumbria survey

Example survey result from one statement



RPD toolkit: results from Cumbria survey

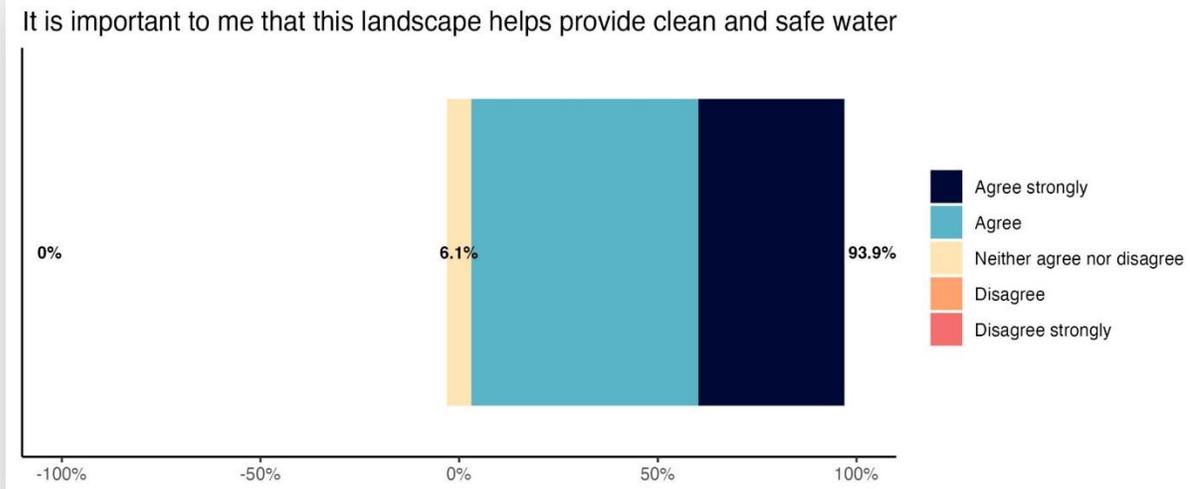
Example survey result from one statement



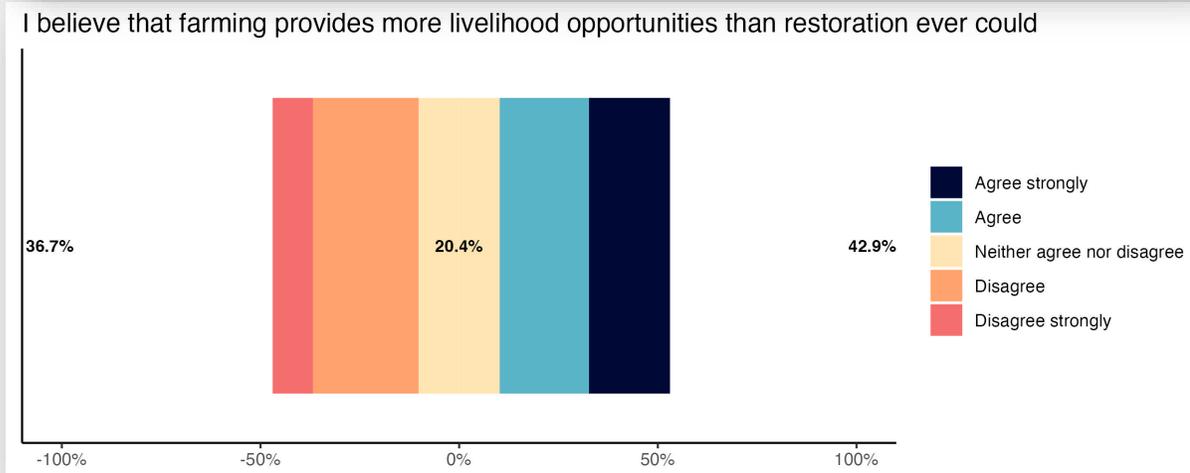
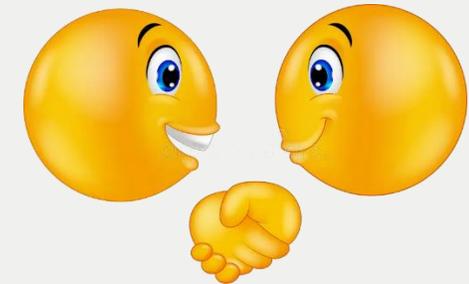
**Restoration Partnership Development:
social science tools for building landscape restoration partnerships**

Consensus index score

(between 0 and 1) *Tastle and Wierman 2007*



0.798



0.485



**Restoration Partnership Development:
social science tools for building landscape restoration partnerships**

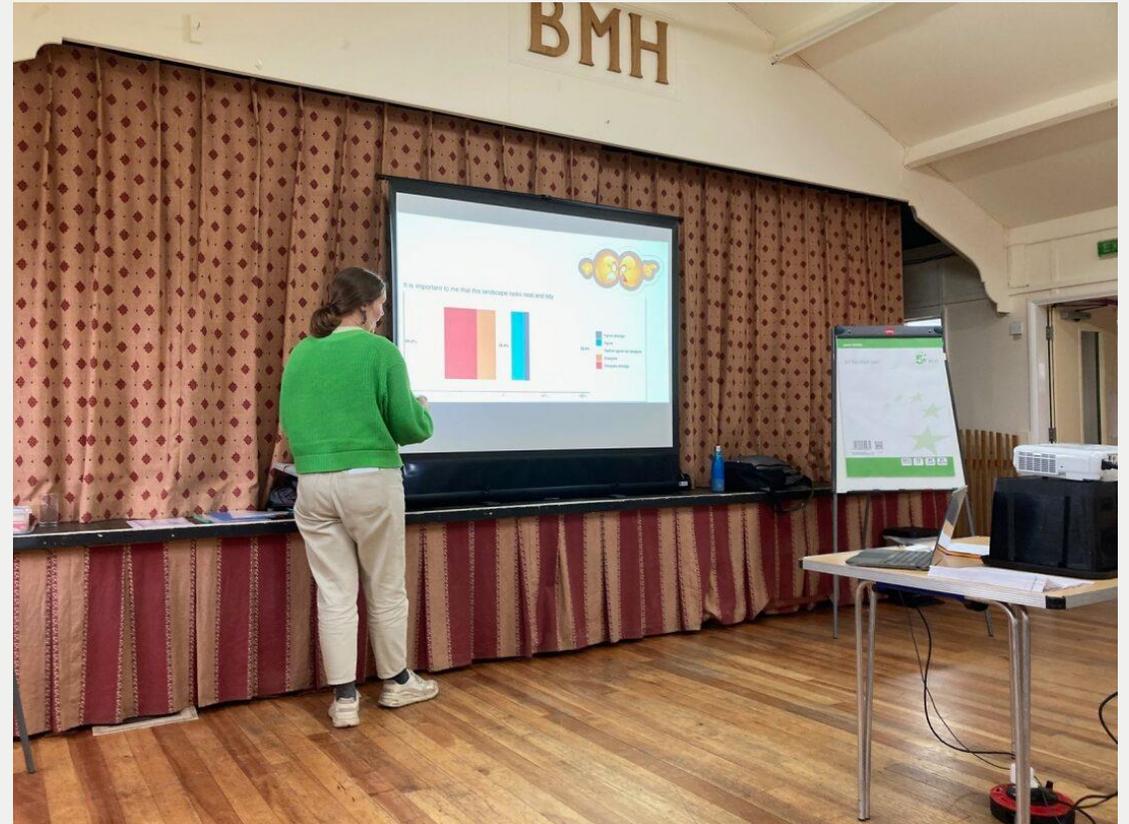


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RPD toolkit: deliberative workshops

1st and 2nd August 2023, evening sessions, Bampton Memorial Hall

- Attendees from Cumbria Connect constituent organisations AND wider stakeholders (farming, restoration, heritage, estates)
- Independent facilitator
- Small group activities based on survey results
 - *Emphasis that we were inviting participants to help us understand survey results*



RPD toolkit: deliberative workshops

➤ Small group activities based on survey results

- Which results were as expected? Which were surprising?
- Consensus statements
 - How can we respond to this issue?
- Divisive statements
 - What challenges do we face?

Get participants to think from someone else's perspective and reflect on their own



RPD toolkit: deliberative workshops

Final workshop activity (plenary discussion)

If we are to work better, together, to benefit everyone who cares about this place, what areas should we focus on?



RPD toolkit: evaluation

Feedback from workshop participants:

- ✓ “opportunity to unpack controversial issues”
- ✓ “get under the skin...about what [others’] concerns, issues, worries are”
- ✓ “opportunity to get my views out there”
- ✓ “helps to understand the way we obviously see things completely differently at times”
- ✓ “non-confrontational”

“fundamental, **non-material social and psychological unmet needs**— including status and recognition, dignity and respect, empowerment, freedom, voice and control”

*Madden and McQuinn (2014),
Conservation’s Blind Spot: The
Case for Conflict Transformation in
Wildlife Conservation*

RPD toolkit: using the toolkit

Where the **user** (practitioner, project leader) **builds their own bespoke statement-based survey**

App 1



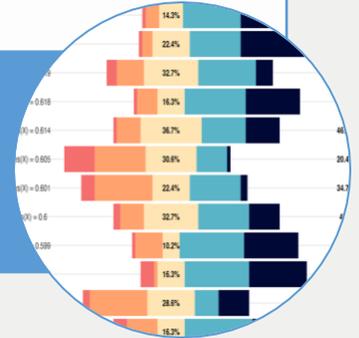
Where **respondents** (the project stakeholders) can **do the survey**

App 2



Where the **user** can then **see the survey results**

App 3



RPD toolkit: using the toolkit

Where the **user** (practitioner, project leader) **builds their own bespoke statement-based survey**

App 1



When the user (the practitioner) states the

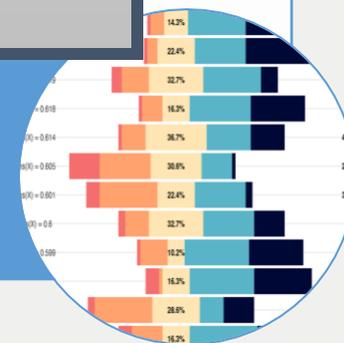
- User can choose from pre-determined banks of statements, categorised by context/project type
- Possibility to create own statements (?)

then the results

App 2



App 3



Self-guided training materials will be available

Thank you



X @green_geog

greenannette24@gmail.com



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Thank you



X @green_geog

greenannette24@gmail.com



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Conversation starters in conservation: Navigating diverse perspectives using social science methods

Janet Fisher, Helena Slater and Annette Green
GeoSciences

janet.fisher@ed.ac.uk; helena.slater@ed.ac.uk; greenannette24@gmail.com

The Future of Conservation Survey team



Chris Sandbrook me George Holmes Rogelio Luque-Lora Aidan Keane



Cambridge Conservation Initiative



Restoration partnership development toolkit



Annette Green

Educational study



Helena Slater



Aidan Keane

Great Big Nature Survey



Ellesse Janda

Daniel Barrios O'Neill