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The effect of environmental attitudes and place (national) identity on stated preferences:

a choice experiment study of peatland restoration in Scotland

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Introduction

- Understanding people's willingness to support environmental conservation (and the related drivers and barriers) can be helpful to inform policy-makers in the design of more effective and socially acceptable policies.
- Amongst the main factors:
 - environmental attitudes
 - and identity-related beliefs (place identity)



Introduction

Evidence:

- environmental psychology and sociology literature
 - attitudes **+** intended behaviour (Theory of Reasoned Action, of Planned Behaviour)
 - but scarce integration of identity issues, which are often analysed separately and are found to sometimes **+** and sometimes **-** affect behaviour
- Little evidence from stated preference (SP) valuation literature

Limitations:

- Few studies, either focusing on environmental attitudes or identity perceptions
- Mixed evidence on the effect of each
- Psychological traits directly measured, while they are unobservable (“latent”)



Objective

- Explore the role of environmental attitudes and place (national) identity on WTP
- while relying on a suitable econometric framework (hybrid choice model)
- taking the case of preferences for peatland restoration in Scotland as an example.



Case study

- Peatlands in Scotland



1)



2)



3)



4)

- Restoration

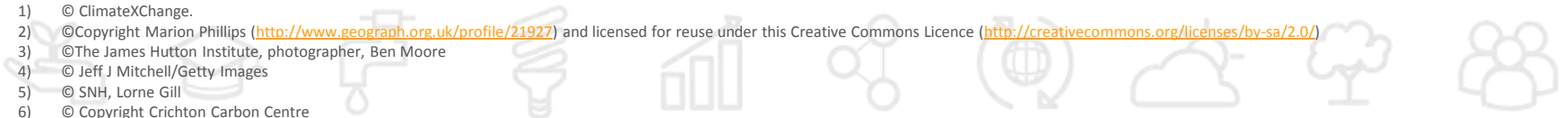


5)





6)

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Methodology

- Choice experiment (CE) exercise

	Business as usual no additional restoration	Restoration Option A	Restoration Option A
Share in GOOD condition			
	20%	40%	40%
Share in BAD condition			
	40%	40%	20%
Focus in wild land areas	-	Yes	No
Focus in areas that are	-	High in peatlands	Low in peatlands
Cost per year	£0	£50	£75



Methodology

- Other survey questions



Methodology

- Other survey questions
 - Environmental attitudes (New Ecological Paradigm)
15 statements [Likert-scale], e.g.:
 - *“We are approaching the limit of the number of people the earth can support”*
 - *“Humans are severely abusing the environment”*
 - *“Despite our special abilities humans are still subject to the laws of nature”*
 - *“The balance of nature is very delicate and easily upset”*
 - *“If things continue on their present course, we will soon experience a major ecological catastrophe”*
 - *Etc.*



Methodology

- Other survey questions
 - Environmental attitudes (New Ecological Paradigm)
 - Place (national) identity
 - 4 statements [Likert-scale]
 - *“I think peatlands are part of Scotland’s identity”*
 - *“I have strong bonds with Scotland”*
 - *“I strongly identify with Scotland”*
 - *“I like to spend time enjoying the Scottish landscape of which peatlands are a very important part”*



Methodology

- Other survey questions
 - Environmental attitudes (New Ecological Paradigm)
 - Place (national) identity
 - Socio-demographic characteristics
 - *Age, gender, education, membership to environmental organisation, household size and children/grandchildren, place of residence, close to peatlands, previous visit to peatlands, outdoor recreation (importance and frequency) , etc.*



Modelling

- Hybrid choice model
 - models individuals' preferences (choice experiment)
 - while identifying unobservable (“latent”) variables and examining their effect on preferences



Modelling

- Hybrid choice model

Base
model

- models individuals' preferences (choice experiment)
- while identifying unobservable ("latent") variables and examining their effect on preferences



Modelling

■ Hybrid choice model

Base
model

- models individuals' preferences (choice experiment)
- while identifying unobservable ("latent") variables and examining their effect on preferences
- option to explain "latent" variables through e.g. socio-demographic characteristics

Base
model
+ socio-
demogr.



Results (preliminary!)

- *Base model*
 - Step 1: identify “latent” variables
 - positive environmental attitudes
 - strong ‘national identity’



Results (preliminary!)

- *Base model*
 - Step 1: identify “latent” variables
 - Step 2: choice experiment results
 - Respondents don’t like the no-restoration option
 - WTP for restoring peatlands (bad→good)
 - WTP for restoring peatlands in wild areas
 - WTP for restoration in areas with lots of peat



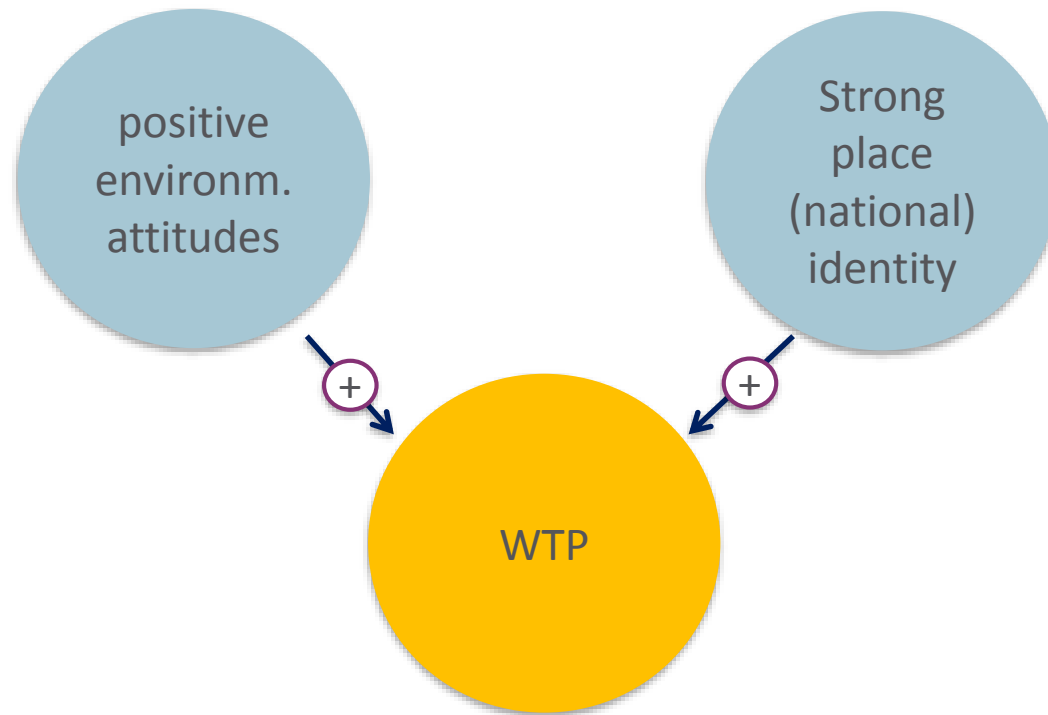
Results (preliminary!)

- *Base model*
 - Step 1: identify “latent” variables
 - Step 2: choice experiment results
 - Step 3: link between 1 and 2



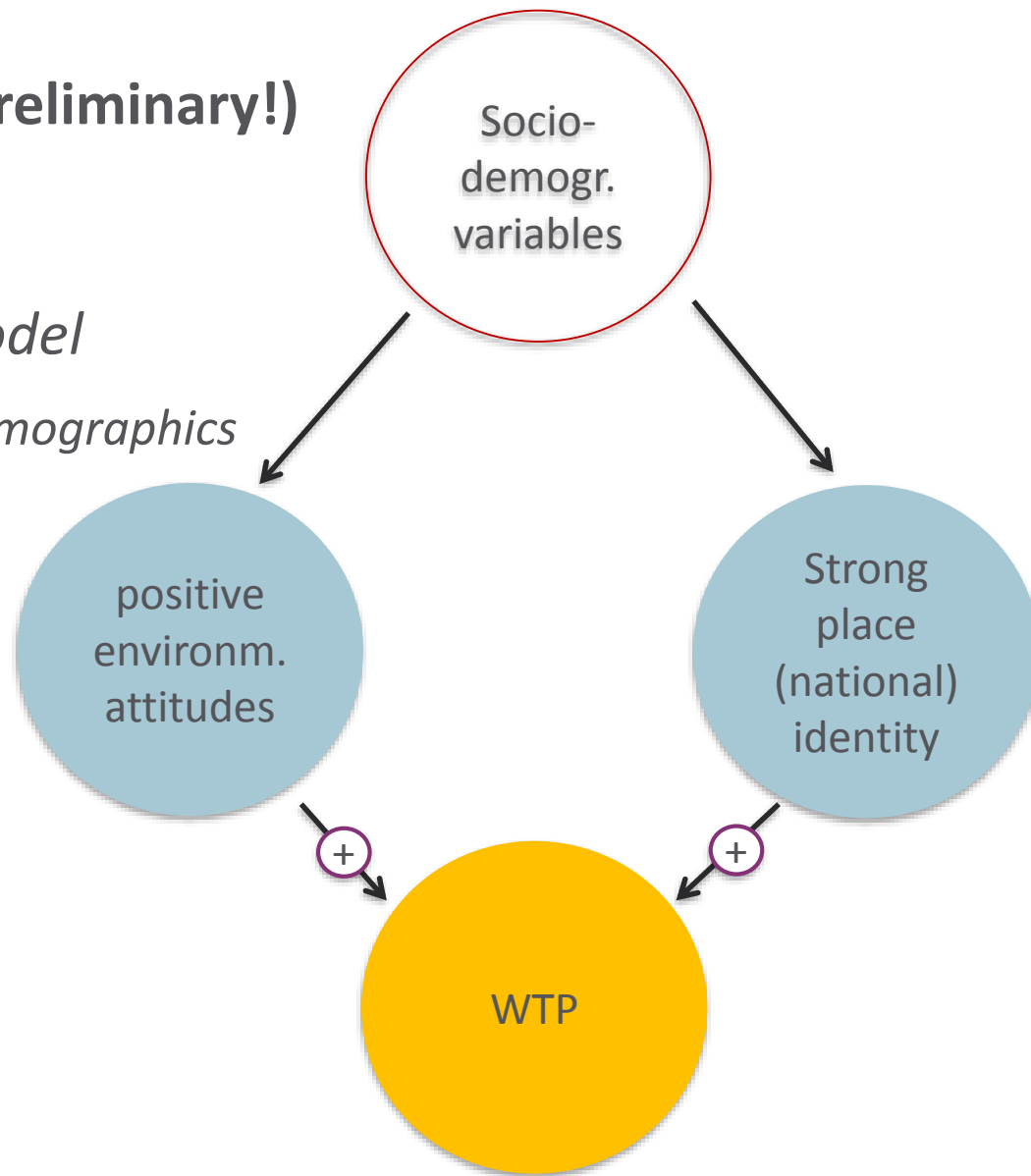
Results (preliminary!)

- *Base model*



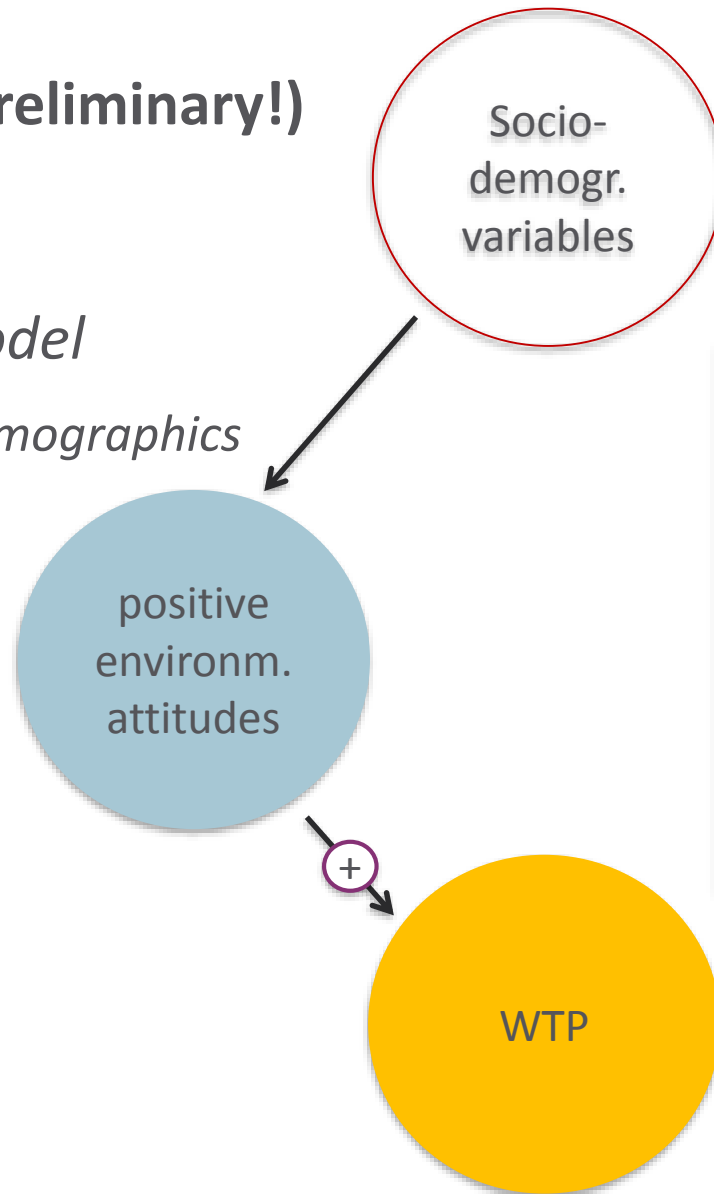
Results (preliminary!)

- *Base model*
+ socio-demographics



Results (preliminary!)

- *Base model*
+ socio-demographics



- younger,
- females,
- with an income below the median for the sample,
- part of an environmental group,
- no children or grandchildren below 16
- outdoor recreation is important for their happiness and wellbeing
- previous visit to (wild) peat areas

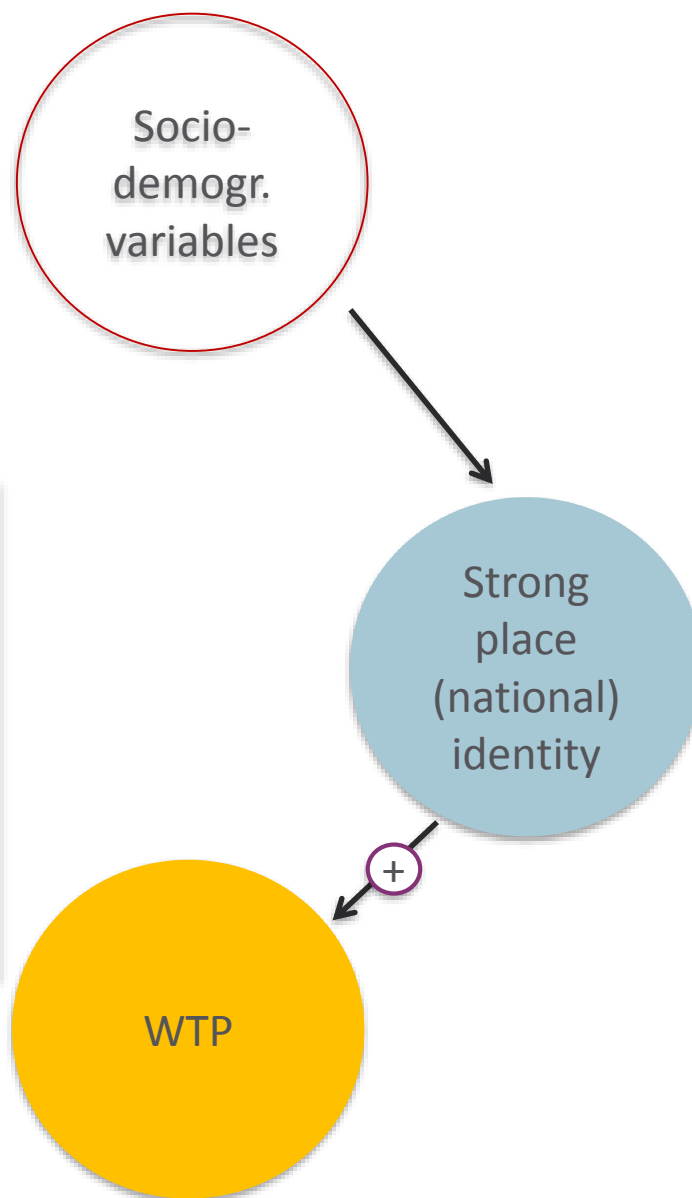


Results (preliminary!)

■ *Base model*

+ socio-demographics

- elderly,
- females,
- with lower education,
- some peatlands close to home,
- outdoor recreation is important for their happiness and wellbeing (regardless of frequency)
- have visited (wild) peat areas in the past



Discussion and conclusions

- Environmental attitudes and place (national) identity play an important role in driving preferences
 - Relevant for the design of environmental policies
 - Based on our preliminary results, strengthening environmental attitudes and place (national) identity perceptions can increase the public acceptability of peatland restoration policies in Scotland
 - Different environmental attitudes and place (national) identity perceptions depending on socio-demographic profile



Discussion and conclusions

- Limitations/future research
 - Test generalizability of results in different settings and at different scales
 - Hypothetical nature of the exercise versus real-world behaviour of individuals



Thanks for your attention!

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For more information on the study, please contact the corresponding author:

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