

NATURE CONNECTION & CYCLING

Mel Cairns and Dr. Juliet Jain

University of the West of England

INTRODUCTION

Nature connection and cycling both offer a host of benefits for human health and wellbeing and for environmental sustainability¹. Nature is in evidence on many cycle rides and routes but little extant research had explored this intersection.

It aimed to explore relationships between nature (including connection and connectedness) and cycling practices in Bristol, UK, and asked the following:

1. Is Nature Connectedness Index² (NCI) score related to cycling time?
2. Does NCI score differ by cycling activity?
3. How do cyclists/non-cyclists experience/perceive interplay between cycling and nature connection?

METHODS

Online **survey** capturing NCI score, cycling activity and duration and demographics, followed by statistical analysis: Spearman rank correlation and Kruskal-Wallis test ($n = 420$)

Semi-structured online **interviews** about perceptions and experiences of nature and cycling, followed by thematic analysis ($n = 7$)

LIMITATIONS

- Non-representative, convenience sample of Bristol adults
- Pandemic may have confounded RQ1 results

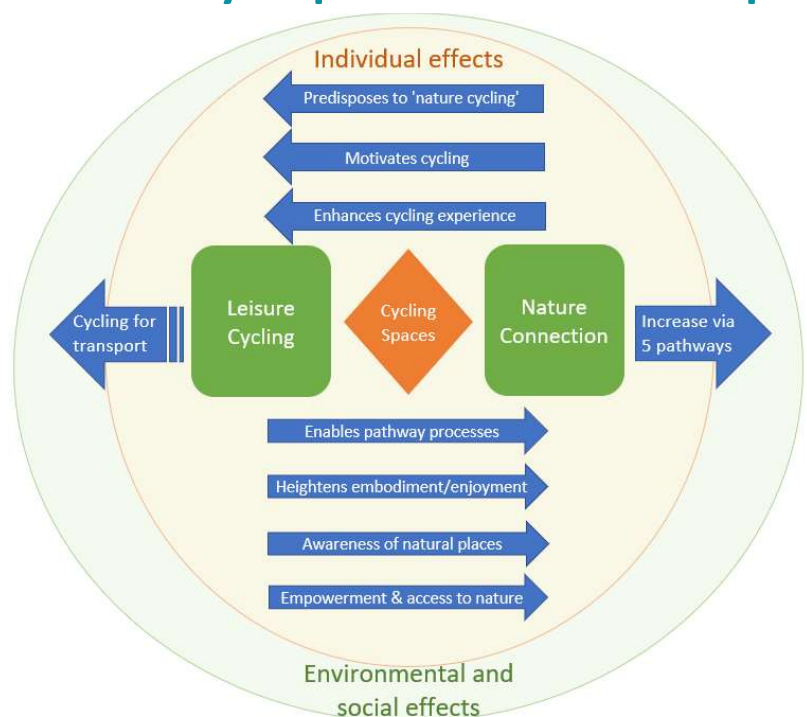
RESULTS & DISCUSSION

Time spent cycling was **not** associated with NCI score.

Recreational cyclists had **higher** NCI scores ($p < 0.01$): 68 compared to 62.

For some people and some journeys **nature was influencing cycling, and vice versa, in multiple ways**, according to the qualitative interviews. Cycling spaces both enabled and hindered these relationships.

Summary of possible relationships



KEY FINDINGS

1. Respondents who cycled for transport had a lower mean NCI score of 60: **counter to the established link between nature connectedness and pro-environmental behaviours³** (but note limitations).
2. The positive relationship between NCI and recreational cycling, along with the qualitative accounts, suggested **five pathways⁴ can occur during recreational cycling** – increasing nature connectedness.

REFERENCES

1. Kruize, H., van der Vliet, N., Staatsen, B., Bell, R., Chiabai, A., Muiños, G. et al. (2019) Urban Green Space: Creating a Triple Win for Environmental Sustainability, Health, and Health Equity through Behavior Change. *International Journal of Environmental Research and Public Health* [online], 16 (22), article no 4403. [Accessed 15 May 2020].
2. Richardson, M., Hunt, A., Hinds, J., Bragg, R., Fido, D., Petronzi, D., Barbett, L., Clitherow, T. and White, M. (2019) A Measure of Nature Connectedness for Children and Adults: Validation, Performance, and Insights. *Sustainability* [online], 11 (12), 3250. [Accessed 26 October 2020].
3. Mackay, C. M. L. and Schmitt, M. T. (2019) Do people who feel connected to nature do more to protect it? A meta-analysis. *Journal of Environmental Psychology* [online], 65, article no. 101323. [Accessed 19 April 2021].
4. Lumber, R., Richardson, M. and Sheffield, D. (2017) Beyond knowing nature: Contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *PLoS ONE* [online], 12, (5) article no. e0177186. [Accessed 14 April 2021].