

ENVIRONMENTAL MEMORY AND CONSERVATION OF ENVIRONMENTAL BEHAVIORS

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Abstract

Exposure to nature during childhood promotes mental and physical well-being in pro-environmental attitudes (Van Heezik et al., 2021). Different factors can also contribute: time spent in nature, preference for landscapes, exposure to biodiversity as well as the connection with nature. It is therefore important to understand the events experienced during childhood and which will shape environmentally conscious attitudes in adulthood in order to promote ecological values, protection and restoration of the environment (Wells & Lekies, 2006). This is the first study to integrate different components: environmental moral (which includes attitudes and values) and memory. A total of 100 adults aged 17 to 80 years ($M = 35$ years and 4 months, $ET = 10.7$) participated in the study. They were recruited by survey on social network. The material of our study consists of two questionnaires in order to be able to identify values, attitudes towards the environment (Moussaoui et al., 2016) and whether adults who had one or more experiences during their childhood reactivated the patterns left in their memory concerning environmental behavior (Wells, & Lekies, 2006). Regarding childhood experience, individuals had a positive experience with nature when they were accompanied by someone. Environmental education was also part of their involvement. After correlation analysis, adults who have had nature-related experiences and attachment will tend to have more pronounced pro-environmental attitudes and values than adults who have not had direct experiences with nature. The results highlight that individuals have environmental attitudes and values (such as protection, admiration and aesthetic values). Individuals have therefore kept a trace in memory which allows them to have an environmental morality based on attitudes and values transmitted during childhood. In future research, it would be interesting to delve deeper into the elements on environmental activities in nature at school in a longitudinal approach.

Keywords: *Environmental memory, childhood, adulthood, behaviors, environmental moral.*

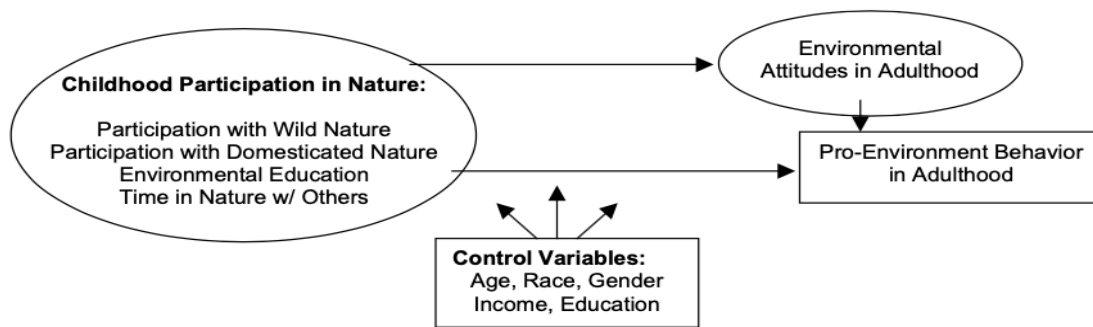
1. Introduction

Exposure to nature during childhood promotes mental and physical well-being in pro-environmental attitudes. Its assets depend on the amount of greenery, proximity to green spaces in the neighbourhood, frequency of visits, time spent, types of environments, level of biodiversity present and connection to nature. (Van Heezik et al., 2021). Wells and Lekies (2006) develop a model and identify different factors that can also contribute to the connection to nature that can create pro-environmental attitudes: time spent in nature, preference for landscapes, exposure to biodiversity and connection to nature. It is therefore important to understand the events experienced during childhood and that will shape environmentally friendly attitudes in adulthood in order to promote ecological values, environmental protection and restoration (Figure 1).

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Figure 1. Conceptual model: child involvement in the nature and environmental adult's attitudes and behavior.



Three main factors are therefore necessary for the child so that once an adult, there are environmental pros and ecological actions: participation in the wild (walking, games, hiking, camping, hunting and fishing), activities related to ecological education and life experience, as well as participation in sophisticated nature (harvesting, harvesting, planting and plant care).

2. Method

2.1. Population

This is the first study to integrate different components: environmental morality (which includes attitudes and values) and memory. A total of 100 adults aged 17 to 80 years ($M = 35$ years and 4 months, $ET = 10.7$) participated in the study. The sample was evenly distributed, consisting of 58 girls and 58 boys. The majority of participants were French (92%); 3% were Belgian, 5% were other nationalities (cadadiens, Colombian, Filandan, Mexican, North African, Romanian and Swiss).

2.2. Material

The material of our study consists of three questionnaires in order to identify values and attitudes towards the environment (Moussaoui et al. 2016) and whether adults who had one or more childhood experiences reactivated the trends left in their memory regarding environmental behavior (Wells, & Lekies, 2006). A questionnaire on the well-being of the participant. In addition, a control task was done to assess the memory of the participants. They had to tell a memory dating from 4 and 10 years.

2.3. Procedure

All participants responded to all questionnaires on Google Drive was used to pass the questionnaires individually.

2.4. Data coding

We will be presenting the first results. These are quantitative results.

3. Results

Regarding the childhood experience, individuals had a positive experience with nature such as green classes, hikes/games in the forest, gardening, camping, they were accompanied by someone. Few individuals report negative experiences, we can identify some natural disasters (flood, storm and fire). Participants also report experiences with the wild (forest, camping, picnic) at least once a month. Participants also have experience with sophisticated nature such as gardening once a week for the majority. Environmental education was also part of their commitment. After correlation analysis, adults who have had nature-related experiences and attachment will tend to have more pro-environmental attitudes and values than adults who have not had direct experiences with nature. The results highlight that individuals have environmental attitudes and values (such as protection, admiration and aesthetic values). Individuals have therefore kept a trace in their memory that allows them to have an environmental morality based on attitudes and values transmitted during childhood.

4. Discussion

In this study, we made the link between different components: environmental morality (which includes the notions of attitudes and values) and memory. The results showed that adults who had positive experiences with nature (such as time spent in nature, environmental education and having direct experience with sophisticated and wild nature) will have more pro-environmental attitudes and behaviours, which confirms the hypothesis of Wells and Lekies (2006). So, people have created patterns and have kept track of them, so they can reactivate their environmental morality as adults.

5. Conclusion

To conclude, the results are in agreement with the literature. It would be interesting to continue statistical analyses to identify the pro-environmental attitudes and behaviours of individuals who have had a negative experience with the environment. Future research could explore the elements of environmental activities in nature at school using a longitudinal approach with interest.

References

- Moussaoui, L. S., Desrichard, O., Mella, N., Blum, A., Cantarella, M., Clémence, A., & Battiaz, E. (2016). Validation française de l'Inventaire d'Attitudes Environnementales. *European Review of Applied Psychology*, 66(6), 291-299.
- Van Heezik, Y., Freeman, C., Falloon, A., Buttery, Y., & Heyzer, A. (2021). Relationships between childhood experience of nature and green/blue space use, landscape preferences, connection with nature and pro-environmental behavior. *Landscape and Urban Planning*, 213, 104135.
- Wells, N. M., & Lekies, K. S. (2006). Nature and the life course: Pathways from childhood nature experiences to adult environmentalism. *Children, youth and environments*, 16(1), 1-24.