

Is the environmental identity sensory?

A study of smell-sensitivity, environmental identity and uses of nature

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Introduction

The experience of nature is a complex phenomenon, embedded in social and cultural contexts¹. At individual level, it relies on multiple and intertwined components, like senses, emotions and affects.

Although humans can interact with their environment with all their senses, two out of them have been particularly studied in psychology, regarding restorative experiences of nature: the sense of hearing^{2,3}, and the sense of sight⁴.

However, a growing number of disciplines consider the diversity of multi-sensory experiences of the environment.

Combined with other environmental components, the sense of smell impacts directly on people's everyday experiences of life and their perceptions of different places⁵.

In addition, like the environmental identity, the sense of smell is closely linked with memory, presumably more than any other human's senses⁶.

In the current study, we aimed to assess the potential interrelations between the sense of smell (through the olfactory sensitivity), environmental identity and sensory experiences of nature.

Method

An online survey was conducted.

French-speaking respondents were recruited from social-media, community websites and students' newsletters.

Materials

Human-nature connection

- Environmental Identity scale (EID)⁷
- Likert-scale from 1 (totally disagree) to 5 (totally agree)
- Three dimensions of people's connection
 - The importance given to nature
"I would rather live in a small room or house with a nice view than a bigger house with a view of other buildings"
 - The interactions with nature
"I spend a lot of time in natural settings"
 - The positive emotional reactions
"When I am upset or stressed, I can feel better by spending some time outdoors communing with nature"

Uses of natural spaces

- Likert-scale from 1 (totally disagree) to 5 (totally agree)
- Two uses categories:
 - 4 items related to social and personal uses



4 items related to sensory uses



Smell sensitivity

- Likert-scale from 1 (totally disagree) to 5 (totally agree)
- An adapted version of the Chemical Sensitivity Scale (CSS)⁸
- Three dimensions of people's smell sensitivity
 - Smells detection level
"I am easily alerted by odorous substances"
 - Emotional reactions to smells
"I get mad at people who spread odorous substances that keeps me from relaxing or getting work done"
 - Smells tolerance level
"At movies, other persons' perfume and after shave disturb me."

Results

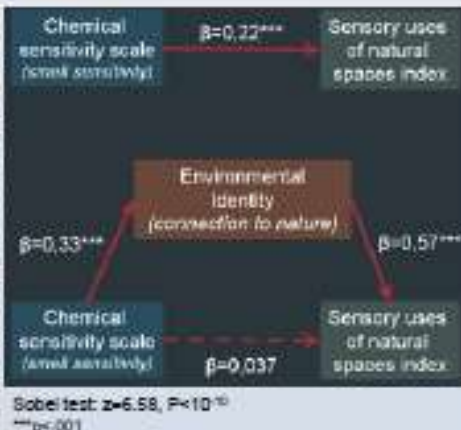


Figure 2: Mediation effect of the environmental identity on the relation between the chemical smell sensitivity and the sensory uses of natural spaces.

Discussion

Environmental identity was significantly related to the chemical smell sensitivity. This connection could be explained by two dimensions they share: memory and emotion.

Environmental identity also mediates the relation between the olfactory sensitivity and the sensory uses of natural places.

This research suggests that the environmental identity is important to explain how people interact with their natural environment, and their sensory experiences of nature.

Future research about the sensory dimension of the experience of nature should be conducted to strengthen the idea that the experience of nature is not only a direct encounter, but a more complex process.

References

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Figure 1: Potential relations between the human-nature connection, smell-sensitivity and the sensory uses of natural spaces.