

# The conceptualization of environment and nature regarding specific contrasted backgrounds

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## Introduction

The present study attempts to explore how children conceptualize environment and nature. Actually, to our knowledge, psychology did not treat this question. Nevertheless, several studies in environmental education focus in people's knowledge of the environment and nature (Shepardson, 2007). We consider that children understanding and reasoning about nature and environment is an important issue to face current environmental problems. Nature and environment are concepts that exist in our mind as a result of culturally transmitted information's, our own interactions with the physical, social, and cultural world of which we form part (Lammel & Kozakai, 2005). The difficulty consists in the fact that the concepts of environment and nature are fuzzy and ill defined whose boundaries are not sufficiently defined so they cannot be clearly identified even by adults (Flogaitis & Angelidou, 2003). Thus, how children can construct a solid concept? What can be the role of specific cultural background? The present study attempts to compare the conceptualization in children and adolescents in function of contrasted cultural background with the aim to identify the role of development and cultural influences.

## Methods

The participants were 240 children from France (N=120) and Mexico (N=120). First, we use an association task was proposed to determine the semantic fields. Secondly, in order to identify conceptions of nature and environment, subjects were invited to define these concepts.

## Results

The concepts of environment and nature present different semantic organizations.

Statistical analyzes highlights cultural effect in both concepts. Developmental effect was observed only for the concept of environment. The categorical analysis reveals several mental models of the concept of environment (e.g. synonymous of nature, spatial view, ecological behavior, etc.) and nature (e.g. objects' collection, human/nature separation, teleological definition, etc.). Results in function of developmental and cultural variables highlight inter and intra-cultural developmental differences.

## Discussion

The variety of mental representations gives evidences that the both concepts of environment and nature are fuzzy and ill-defined. Nevertheless, results show that the concept of environment is even less stable and ambiguous than the concept of nature. The identification of mental models provides new information of the role of culture and development on cognitive mechanisms permitting simultaneous treatment of these interrelated concepts.

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