

# Center for Cognitive Science

University at Buffalo, State University of New York

## Spring 2001 Colloquia

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and

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Wednesday, April 4, 2001

2:00 pm - 3:30 pm

280 Park Hall, North Campus

## "Geographic Objects and Their Categories"

This colloquium will report the results of a series of experiments designed to establish how non-expert subjects conceptualize geospatial phenomena. Subjects were asked to give examples of geographic categories in response to a series of differently phrased elicitations. The results yield an ontology of geographic categories--a catalogue of the prime geospatial concepts and categories shared in common by human subjects independently of their exposure to scientific geography. When combined with nouns such as *feature* and *object*, the adjective *geographic* elicited almost exclusively elements of the physical environment of geographic scale or size, such as mountain, lake, and river. The phrase *things that could be portrayed on a map*, on the other hand, produced many geographic scale artifacts (roads, cities, etc.) and fiat objects (states, countries, etc.), as well as some physical feature types. These data reveal considerable mismatch as between the meanings assigned to the terms 'geography' and 'geographic' by scientific geographers and by ordinary subjects, so that scientific geographers are not in fact studying geographic phenomena as such phenomena are conceptualized by naïve subjects. The data suggest, rather, a special role in determining the subject-matter of scientific geography for the concept of *what can be portrayed on a map*. This work has implications for work on usability and interoperability in geographic information science, and it throws light also on subtle and hitherto unexplored ways in which ontological terms such as 'object', 'entity', and 'feature' interact with geographic concepts.

Refreshments will be available, everybody is welcome.

For information please call the Center for Cognitive Science at (716) 645-3794  
or check: <http://wings.buffalo.edu/cogsci>