

## **UC Merced**

### **Proceedings of the Annual Meeting of the Cognitive Science Society**

#### **Title**

Spatial Representation of Environmental and Geographical Space in Different Perspectives

#### **Permalink**

<https://escholarship.org/uc/item/4fw761q2>

#### **Journal**

Proceedings of the Annual Meeting of the Cognitive Science Society, 33(33)

#### **ISSN**

1069-7977

#### **Authors**

Frankenstein, Julia  
Holscher, Christoph

#### **Publication Date**

2011

Peer reviewed

# Spatial Representation of Environmental and Geographical Space in Different Perspectives

**Julia Frankenstein**

Center for Cognitive Science Freiburg University

**Christoph Hölscher**

Center for Cognitive Science Freiburg University

**Abstract:** This experiment investigates the impact of scale and perspective on spatial representations. Seventy summer school participants indicated the spatial relationship between the conference center and a nearby lake (map A) as well as their hometown (map B). They marked the target both on partial maps in birds-eye perspective or on a tilted plane (oblique perspective). After completing both maps, participants added an arrow pointing north to their drawings. Most type B maps were oriented north-up, but orientation varied widely in type A maps. Our findings suggest that most participants remembered a topographic map for depicting the large-scale space, no matter in which perspective the map was drawn. For depicting the relationship of a close location (i.e., the lake), most participants seem to rely on embodied strategies or a strategy based on route knowledge.