SFB/TR 8 SPATIAL COGNITION

IQN

SFB/TR 8 Spatial Cognition / IQN
Video Conference

Prof. Dr. Evelyn C. Ferstl
Universität Freiburg

Spatial cognition in map-aided wayfinding and narrative comprehension

„Women get lost, men don't ask directions". This stereotype is deeply ingrained in our minds. Surprisingly, though, there is a lack of empirical data on the issue, and the available studies do not yet provide a clear picture. In this talk I will report preliminary results of a project on gender differences in wayfinding. The goal of the project is to develop a tool for assessing individual differences in map-aided route-following. Separating the complex process of map use into dissociable components (such as angle discrimination, mental rotation), a first study yielded systematic effects of task difficulty, confirmed gender differences and showed correlations with traditional tests (e.g., mental rotation, Hidden Figures Test). These results are promising and the diagnostic tool will be extended to include additional features, such as the use of landmarks in more realistic scenarios.

In the second part of the talk I will present neuroscientific studies on spatial cognition in narrative comprehension. Short texts mentioning crucial spatial information elicit activation in parahippocampal regions known for their role in visuo-spatial processes and, in particular, in navigation. These results show that even effortless language processing engages domain-specific brain regions. In the last part of the talk I will integrate the two approaches to sketch a differentiated project on individual and/or gender differences in wayfinding that takes into account both visuo-spatial skills and language based inference processes.

Freitag, 25. November 2011
informelle Kaffeerunde: 15:15
Vortragsbeginn:15:30
- Rotunde Cartesium,
  Enrique-Schmidt-Str. 5
  Universität Bremen
- Geb. 106, Raum 04 007,
  Universität Freiburg

Kontakt:

Prof. C. Freksa, Ph.D.
freksa@informatik.uni-bremen.de
0421 – 218 - 64230

Universität Bremen

ALBERT-LUDWIGS-
UNIVERSITÄT FREIBURG

Deutsche
Forschungsgemeinschaft
DFG