## Factors in the interaction of environment, language and spatial cognition

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Cross-cultural and cross-linguistic diversity in spatial behaviour is well-known. Recent research has now begun to reveal considerable diversity *within* language communities, correlating with group-level and individual demographic variables, undermining the linguistic relativity hypothesis that variation in spatial behaviour across language groups reflects the influence of language on cognition. The Topographic Correspondence Hypothesis instead posits that language and non-linguistic behaviour both respond to the physical environment. However, sociotopography argues that both result from a complex interplay of environmental, linguistic, social, cultural and demographic factors.

This talk surveys factors that play a role in constructing conceptual and linguistic representations of space, accounting for variation between communities, between individuals within communities, and within individuals. These range from response to environment and perception of landforms, to environmental familiarity and cultural interaction with environment (land use, subsistence mode, built environment, wayfinding practices, environmentally-anchored cosmology, etc); from cultural adaptation, communities of practice and intergenerational shift, to individual occupation, age, gender, education, literacy and bilingualism; from linguistic resources to patterns of language use to task and interlocutor accomodation; and from develomentally formative environment to innate pan-simian biases, to the operation of the brain's head-direction cells.

Considerably more work is needed to understand the interaction of these diverse factors in constructing conceptual and linguistic representations of space. The findings synthesised in this talk point to diverse interdisciplinary future directions in this program of research.

**Bio**: Bill Palmer is Professor of Linguistics and Cognitive Science at The University of Newcastle. He is lead investigator on the OzSpace project. After an MA and PhD at the University of Sydney Bill held lectureships with the Pacific Languages Unit at the University of the South Pacific, the University of Melbourne and the University of Leeds, and a research fellowship with the Surrey Morphology Group at the University of Surrey, before joining the University of Newcastle where he is Associate Professor. Bill developed the Topographic Correspondence Hypothesis that underpins OzSpace's topographic correspondence study, and with collaborators Alice Gaby, Jonathon Lum and Jonathan Schlossberg developed the theory of sociotopography that underpins OzSpace's sociotopographic study. In addition to leading the project overall, Bill is continuing development of the theory of sociotopography, and implementing the project's topographic correspondence study surveying spatial systems in their topographic context across 200+ languages of Australia. In addition to work on spatial language and cognition, Bill works on typological, formal and historical studies in Austronesian, Papuan and Australian languages. He is President of the Australian Linguistics Society, and a Fellow of Goodenough College London.