



Dr. Nora Newcombe

TITLE: How Do (Some) People Make a Cognitive Map?

ABSTRACT:

Research on the existence of cognitive maps and on the cognitive processes that support effective navigation has often focused on functioning across individuals. However, there are pronounced individual differences in navigation proficiency, which need to be explained, and which can illuminate our understanding of cognitive maps and effective navigation. This talk will begin with an overview of the cognitive map controversy and will then present data from a line of work initiated by Ishikawa and Montello (2006), who looked at participants passively driven through environments. Schinazi, Nardi, Newcombe, Shipley & Epstein (2013) used active walkers in a similar paradigm, and also gathered brain data. Weisberg, Schinazi, Newcombe, Shipley, & Epstein (2014) devised a virtual environment assessment (Silcton) and found evidence for 3 groups of spatial learners, within-route and between-route pointing accuracy: Integrators, Non-integrators, and Imprecise Navigators. More recently, Weisberg and Newcombe (in press) have further investigated this classification system, examining spatial and verbal working memory, memories of buildings as categorized by route membership, place and route learning and motivation.