The longitudinal study of spatial cognitive development in children with pre- or perinatal focal brain injury
Joan Stiles, Pamela Moses, and Brianna M. Paul

in Reprogramming the Cerebral Cortex: Plasticity following central and peripheral lesions
Published in print: 2006 Published Online: September 2009
Item type: chapter

This chapter discusses the perceptual effects of pre- or perinatal lesions. It shows that when subjects were asked to perform a task the outcome may appear normal, however, procedural affects may be present. Imaging techniques are used to study anatomical and functional changes related to recovered behavior.

Map use and the Development of Spatial Cognition
Clare Davies and David H. Uttal

in The Emerging Spatial Mind
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Item type: chapter

This chapter describes how using symbolic representations such as maps can play a role in the development of spatial cognition. It is suggested that the use of maps may influence how children come to think about space beyond their immediate experience. In addition, it discusses some of the ideas and evidence from a research program that has investigated the possibilities. Moreover, it explores the apparent antecedents, challenges, task dependencies, and cognitive processes that impact children's effective use of maps, and the implications of these for the understanding of spatial cognitive development as it relates to large-scale space. It is shown that exposure to survey representations such as maps induces spontaneous use in some types of spatial problem-solving.
by the age of 7–10 years, at least for children living in a mid-western U.S. suburban area.

What Makes Thinking about Development So Hard?
John P. Spencer and Jodie M. Plumert

in The Emerging Spatial Mind

This chapter sketches some thoughts about why it is so difficult to investigate both “what” and “how” in spatial cognitive development. Then, it discusses the progress in the field that has been made so far, by addressing each question in turn. It closes with a hopeful forecast for the future: that the field of spatial cognitive development offers an exciting case study for thinking about the processes that underlie developmental change in general, and that the field that is on the verge of truly substantive progress that can integrate the “what” and “how” of development.