

archives

J. Piaget



Archives Jean Piaget

40, boulevard du Pont d'Arve
1205 Genève | Suisse

18th Advanced Course

Cognitive Development, Mechanisms and Constraints

3 – 5 July 2008

Friday afternoon, July 4, 2008

14h30

Nelson Cowan, University of Missouri

New Insights into an Old Problem: Distinguishing Storage from Processing in the Development of Working Memory

Abstract:

Nelson Cowan, Candice C. Morey, Angela M. Aubuchon, Christopher E. Zwillig, Amanda L. Gilchrist and J. Scott Saults

We have conducted several studies aiming to understand how processing affects the measurement of working memory capacity in children and adults. One study shows that the childhood development of working memory for a set of object colors is influenced by the process of filtering out objects defined as irrelevant according to shape. Another study suggests that the childhood development of working memory for associations between verbal and spatial information depends largely on verbal rehearsal, and only secondarily on basic capacity. We show how various processes (attentional filtering, rehearsal, and chunking) complicate the attempt to examine basic working memory capacity, which nevertheless does appear to increase to an important extent with development.