

## **Development of cognitive functions across lifespan**

(Hommel)

### **Description**

This project investigates the age gradients, structure, and causes of lifespan age differences and age changes in basic cognitive processes and high-order intellectual functioning. We explore lifespan developmental effects in terms of the level, inter- and intraindividual variability in cognitive processes, and patterns of covariation between different processes. To study age differences in level and structure, we use cross-sectional research designs to study 300+ individuals range from 6 to 89 years old using (a) a broader battery with 15 measures assessing basic cognitive mechanics (general fluid abilities) and cognitive pragmatics (general crystallized abilities), and (b) eight pairs of elementary cognitive experimental reaction time tasks measuring short-term memory and attentional mechanisms. This research is carried out in collaboration with the joint MPIb (Max-Planck Institute for Human Development) – MPIpf (Max-Planck Institute for Psychological Research) CoOP-MIND research team.

### **Financing**

Max-Planck Institute for Human Development; Max-Planck Institute for Psychological Research

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### **Student participation**

Oefenexperiment, Onderzoeksproject, Honours Research Project, Stage (Berlin, Saarbrücken, or Toronto), Scriptie

### **Publications**

Hommel, B., Li, Z. H., & Li, S.-C. (2002). Visual search across the life span. Manuscript submitted for publication.

Li, S.-C., Lindenberger, U., Hommel, B., Aschersleben, G., Prinz, W., & Baltes, P. B. (2002). Lifespan ontogenetic transformations of mental structure. Manuscript submitted for publication.