Cognitive development

1. Full title
   Cognitive development

2. Research group
   Developmental Psychology
   Director: Maurits van der Molen

3. Members of the group
   Senior staff
   Hilde Huizenga, Mariette Huizinga, Brenda Jansen, Maurits van der Molen, Ger Ramakers, Richard Ridderinkhof, Patrick Snellings, Riek Somsen, Margot Taal, Ingmar Visser
   Postdoctoral fellows
   Birte Forstmann, Dorothy Mandell, Annemie Ploeger, Maartje Raijmakers, Wery van den Wildenberg
   PhD’s
   Bianca van Bers, Anna van Duijvenvoorde, Bregtje Gunther Moor, Helga Harsay, Marijke van de Laar, Guido Meijnders, Melle van der Molen, Tessa van Schijndel, Verena Schmittmann, Silvan Smulders, Wouter Weeda

4. Membership Research School and other Research Institutes
   Nearly all staff members participate in the Experimental Psychology Graduate School (EPOS) or the Interuniversitary Graduate School for Psychometrics and Sociometrics (IOPS). The staff has close ties with the Cognitive Science Center Amsterdam (CSCA) of the University of Amsterdam.

5. Research topics
   The program focuses on two research themes: Developmental Processes and Brain and Development. Within the context of Developmental Processes the emphasis is on (i) the experimental analysis and advanced modeling of cognitive development during childhood and individual differences in cognitive abilities, and (ii) the construction and application of adaptive signal analysis techniques for the analysis of EEG/MEG and fMRI measurements and advanced statistical techniques for the analysis of age and individual differences. Our research into Brain and Development centers on (i) the development of cognitive control during childhood and senescence and (ii) the
construction and application of experimental tasks for the analysis of age and individual differences. The growing interaction between both themes is facilitated by a shared interest in mental chronometry and neural activity.

6. Program Development
Considerable progress has been made within both research themes during the past year. Within the context of the Developmental Processes theme, the focus of interest enlarged from the construction and application of neuroimaging signal analysis techniques to the statistical analysis of individual (intelligence) and group differences (clinical vs. control). In addition, a fully equipped baby lab (observation and psychophysiological facilities) has been opened up allowing for the systematic analysis of (individual) differences in cognitive development during infancy. Within the context of the Brain and Development theme, the focus of interest enlarged from the cognitive development per se to the interaction between cognition and social/ emotional developmental processes during the adolescent years. In addition, a senior lab has been inaugurated allowing for full scale (performance to neuroimaging) analysis cognitive ageing and pathology (e.g., Parkinson disease). The trend towards integration between the two themes is in full swing. As indicated previously, within the context of the Developmental Processes theme, the emphasis has been on cognitive development in terms of ‘rule use’ but, more recently, the focus shifted to include an interest in mental chronometry. Conversely, within the context of the Brain and Development theme, the major interest was on mental chronometry and here, the focus changed to include a consideration of rule use and erroneous responses. The cross-fertilization between themes resulted in a several challenging research efforts. One illustration may suffice. The strong focus on proportional reasoning within the Developmental Processes theme (Jansen) and the focus on decision making within Brain and Development theme (Crone) were combined to produce a deeper understanding of the rules children use in making decisions when options are not immediately obvious (Huizenga, Crone & Jansen, 2007). Finally, it should be noted that Patrick Snellings joined the research group. He will strengthen our long-time interests in reading and dyslexia.
7. **Composition of research input of academic staff in 2007**

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RESEARCH OUTPUT

1. PhD Theses
   1.a Internally prepared

   1.b Externally prepared
   Müller, M. (June 2007). *Attentional components of postural control* (pp. 128).
   Universiteit van Amsterdam. Promotores: M. W. van der Molen, M. Redfern.

   1.c Doctorates at other faculties/universities, co-supervised by program members

2. Academic Publications
   2.1. In refereed journal issued in English


### 2.2. Abstracts in refereed journals


### 2.3. In refereed journals issued in other languages

2.4. Other academic publications


3. Professional Publications


4. Congress Proceedings


5. Popular publications


**OTHER PROOFS OF PRODUCTIVITY**

6. **Editorial positions**

6.1. **Editorships**

Ridderinkhof, K. R.

*Cognitive, Affective, and Behavioral Neuroscience* (Guest editor, special issue, 7)

6.2. **Memberships of editorial boards**

Raijmakers, M. E. J.

*Infant and Child Development*

Ridderinkhof, K. R.

*Member Editorial Board of Cognitive, Affective, and Behavioral Neuroscience*

Van der Molen, M. W

*Member Editorial Board of Acta Psychologica*

*Member Editorial Board Frontiers in Human Neuroscience*

*Member Editorial Board Neuropraxis*

7. **Organisation of conferences and symposia**


8. **Scientific Awards**

9. **Research Grants**


10. **Memberships of Scientific Committees**

Van der Molen, M. W.

*Chairman Dutch Developmental Psychology Society (VNOP)*

*Chairman Initiative Group European Society Affective and Cognitive Neuroscience (ESCAN)*

*Scientific Director Experimental Psychology Research School (EPOS)*
11. Visiting professorships and invited lectures

Visiting professorships

Keynote speeches and invited lectures at conferences


Invited lectures at universities

Other Research

Social Cognitive Development
Professor Oppenheimer’s research focuses on social cognitive development and is part of the Institute for the Study of Education and Human Development (ISED), the Cross-Cultural Research Program on Children and Peace (CRPCP), and the Cross-National Research Project on the Development of Enemy Images. The main accomplishments and outcomes of this research are briefly summarized below.

The main themes of this research are:

*Development of the Self-Concept*
The organization and structure of self-relevant information across age and in relation to behavior regulation. In addition, the role of society, parenting, and friendship relations in the development of self, relevant information and its impact on the development of belief structures and feelings of well-being.

*Development of Enemy Images*
The development of the understanding of enemy and the emergence of enemy images. In addition, the development of the understanding of terrorist and the role of cross-generation transfer of stereotypes and negative emotions toward a particular group or nation.

*General Social-Cognitive and Cultural Issues*
The development of personal and social responsibility and cultural variables in development.
In 2007 the program resulted in the following international publications:


**Membership of editorial boards**

Professor Oppenheimer

*Conflict & Communication Online*
*External Evaluator for the Academy of Finland: Research Program 123468*
*International Journal of Behavioral Development*
*Kadin/Woman 2000*

**Invited Lecture**

University of Cyprus, Nicosia: October 22-25: Lectures: *Are terrorists enemies? Children's conceptions of enemy and terrorist.* (23.10.07)  
*Development and structure of the self system* (24.10.07)


**Organization of Professional Meetings**


Finally, Louis Oppenheimer is co-director of the Cross-Cultural Research Program on Children and project leader of the Cross-National Research Project on the Development of Enemy Images.