

## Brain and cognition

### 1. Full title

Brain and cognition

### 2. Research group

Psychonomics

*Program directors: Annette de Groot, Victor Lamme, Jeroen Raaijmakers*

### 3. Members

*Senior staff*

Bob Bermond, Hilde Geurts, Annette de Groot, Ronald Hamel, Winni Hofman, Gerard Kerkhof, Victor Lamme, Jaap Murre, Hans Phaf, Jeroen Raaijmakers, Richard Ridderinkhof, Romke Rouw, Ben Schmand, Steven Scholte, Pauline Spaan, Peter Starreveld, Lucia Talamini

*Postdoctoral fellows*

Spyros Drosopoulos, Titia van Zuijen

*PhD's*

Johannes Fahrenfort, Simon van Gaal, Bram Heerebout, Eموke Jakab, Anne Rienstra, Ilja Sligte, Martijn Wokke

### 4. Membership Research School and other Research Institutes

The research program is embedded in the Graduate Research Institute for Experimental Psychology (EPOS) and the Graduate School for Neuroscience Amsterdam (ONWA). We also participate in the Cognitive Science Centre Amsterdam (CSCA). Part of the research is performed in collaboration with the Netherlands Ophthalmic Research Institute (IOI / KNAW).

### 5. Research topics

The program reflects the growing convergence between cognitive and neurocognitive approaches in the study of cognitive processes. The program is clustered around three major topics: (a) Perception and Action, (b) Memory and Language, and (c) Consciousness.

*(a) Perception and Action*

The human brain is designed primarily to process external information and to transform this information into behaviour in a way that is most meaningful for the individual. In this sense the brain may be viewed as a reflex arc, albeit a very complex one. The complexity of the human brain, consisting of recurrent connections, mechanisms for temporary storage (working memory) and many control systems (attention), makes the input-output behaviour so complex that it cannot be captured in simple terms anymore and it becomes appropriate to talk about cognitive processes.

The goal of the research within this subprogram is to unravel these processes and to reduce them to their most elementary components, aiming to link these components to neural mechanisms. In order to achieve this, a variety of methods is used, psychophysical and behavioural methods (response speed and accuracy), the measurement of neural activity (single-unit recording, EEG, MEG and fMRI), the registration of (autonomic) physiological parameters (heart rate, hormonal secretion and GSR), the study of patients or otherwise abnormal groups, and intervention studies using psychoactive drugs or TMS.

*(b) Memory and Language*

Memory is a central aspect of human and animal cognition, enabling flexibility and adaptability based on past experience. This subprogram focuses on the processes involved in the retrieval of information from memory and how this is affected by a variety of factors including context, previously activated information, and the mental and affective state of the individual. Such retrieval processes lie at the heart of many cognitive functions, not just the recall of past events but also the retrieval of lexical and linguistic information in the understanding of language.

This subprogram has a strong emphasis on formal (computational) modelling of human memory. Quantitative and neural network models are used to determine the explanatory adequacy of specific assumptions regarding memory structures and their interrelations. These models not only try to explain memory processes in normal adults but also specific phenomena observed in amnesia patients.

This theoretically oriented research is accompanied by experimental work in normal and patient populations. Finally, we also explore the processes that play a role in the storage and retrieval of information in more complex tasks such as the processing of sentences and stories, faces and emotional stimuli.

*(c) Consciousness*

A fundamental and not very well understood aspect of human cognition is that many cognitive processes are accompanied by specific phenomenal experiences. We are aware of some of the incoming information but not of other information although in both cases there can be seen an effect on our actions or on our memory. In addition, consciousness may have a controlling influence on cognition. Consciousness may also be defined as a state, in its most extreme form as the difference between sleeping and waking but also when we are awake we may be in different states of alertness, and these states affect our capacity for information processing.

A major topic in this subprogram is the difference between conscious and nonconscious information processing, in particular in visual perception and emotion, and the neural substrate of this difference. In addition, it is investigated whether different sleep stages, and more generally biorhythmic phenomena, and (possibly induced) fluctuations of arousal affect information processing.

**6. Program development**

In 2008 an Advanced Investigator Grant from the European Research Council was awarded to Victor Lamme for his work on consciousness. Advanced Investigator Grants are the most prestigious ERC grants, that are awarded on the basis of past research performance and future plans. The grant, entitled “A new Definition of Consciousness” (acronym DEFCON1), amounts to 2.344.800 Euro. The funds will be used to appoint 3 PhD students and 2 postdoctoral researchers for a period of five years, and to support the acquisition of high density EEG equipment, fMRI, TMS, and to cover other costs. The aim of the project is to radically reshape the landscape of consciousness research. In that landscape, the role of neuroscience currently is limited to finding the ‘neural correlate of consciousness’: behavior and introspection dictate what consciousness is, or whether consciousness is present, and neuroscience is supposed to find the location or mechanism in the brain where the magic happens. The DEFCON1 project takes a radically different approach. Instead of finding neural correlates, the goal of the project is to build a definition of consciousness that puts arguments that are intrinsic to neuroscience on equal footing with arguments from behavior and introspection when it comes to determining whether consciousness is present or absent. Central to the DEFCON1 project is the idea that the difference between conscious and unconscious visual processing is identical to the difference between recurrent and feedforward neural processing. Theoretically, such a neural definition of consciousness clearly separates the conscious from the unconscious, explains the phenomenology of consciousness, demarcates consciousness from other

cognitive functions, and opens up avenues towards understanding consciousness at a more fundamental and even molecular level.

Another member of the Psychonomics Group, Lucia Talamini, was awarded an NWO-VIDI grant of €600.000 for a project entitled “Sleep and memory consolidation: Cleaning up the hard disk”. The project’s aim is to study the way information that is stored in memory during the day is reprocessed during sleep and what the effect of this reprocessing is on memory and emotion. The funds will be used to appoint 2 PhD students and a laboratory assistant.

To further strengthen the group’s research and teaching in Cognitive Neuroscience and to intensify the group’s collaboration with the Biology group in the Faculty of Science two Assistant Professors were hired: Tobias Donner and Heleen Slagter. They will join the group in July 2009.

## 7. Composition of research input of academic staff in 2008

FTE	wp1	wp2	wp3	Total
Full professors (HL)	2.10			<b>2.10</b>
Associate professors (UHD)	0.89			<b>0.89</b>
Assistant professors (UD)	3.18			<b>3.18</b>
Other tenured research staff				<b>0.00</b>
<i>Total tenured research staff</i>	<i>6.18</i>	<i>0.00</i>	<i>0.00</i>	<b>6.18</b>
Non-tenured research staff		1.42		<b>1.42</b>
Ph.D. students	3.39	2.63		<b>6.02</b>
Research assistants	1.41	0.97	0.29	<b>2.67</b>
<i>Total non-tenured research staff</i>	<i>4.80</i>	<i>5.02</i>	<i>0.29</i>	<b>10.11</b>
<b>Total</b>	<b>10.97</b>	<b>5.02</b>	<b>0.29</b>	<b>16.28</b>

## RESEARCH OUTPUT

### 1. Academic publications

#### 1.a.1 In refereed journals issued in English

- Bermond, B. (2008). The emotional feeling as a combination of two qualia: A neurophilosophical based emotion theory. *Cognition and Emotion*, 22, 897-930.
- Bermond, B., Moormann, P. P., Albach, F., & Dijke, A. van (2008). Impact of severe childhood sexual abuse on the development of alexithymia in adulthood. *Psychotherapy and Psychosomatics*, 77, 260-262.
- Bermond, B., Righart, R., Ridderinkhof, K. R., & Moormann, P. P. (2008). Alexithymia and the brain potential P300. *Netherlands Journal of Psychology*, 64, 65-77.
- Cohen, M. X., Ridderinkhof, K. R., Haupt, S., Elger, C. E., & Fell, J. (2008). Medial frontal cortex and response conflict: Evidence from human intracranial EEG and medial frontal cortex lesion. *Brain Research*, 1238, 127-142.
- Fahrenfort, J. J., Scholte, H. S., & Lamme, V. A. F. (2008). The spatiotemporal profile of cortical processing leading up to visual perception. *Journal of Vision*, 8, 1-12.
- Forstmann, B. U., Dutilh, G., Brown, S., Neumann, J., Cramon, D. Y. von, Ridderinkhof, K. R., & Wagenmakers, E. -J. (2008). Striatum and pre-SMA facilitate decision-making under time pressure. *Proceedings of the National Academy of Sciences of the USA*, 105, 17538-17542.
- Forstmann, B. U., Jahfari, S., Scholte, H. S., Wolfensteller, U., Wildenberg, W. P. M van den, & Ridderinkhof, K. R. (2008). Function and structure of the right inferior frontal cortex predict individual differences in response inhibition: A model-based approach. *Journal of Neuroscience*, 28, 9790-9796.
- Forstmann, B. U., Wildenberg, W. P. M van den, & Ridderinkhof, K. R. (2008). Neural mechanisms, temporal dynamics, and individual differences in interference control. *Journal of Cognitive Neuroscience*, 20, 1854-1865.
- Forstmann, B. U., Wolfensteller, U., Derrfuss, J., Neumann, J., Brass, M., Ridderinkhof, K. R., & Cramon, D. Y. von (2008). When the choice is ours: Context and agency modulate the neural bases of decision-making. *PLoS ONE*, 3, e1899.
- Gaal, S. van, & Fahrenfort, J. J. (2008). The relationship between visual awareness, attention, and report. *Journal of Neuroscience*, 28, 5401-5402.

- Gaal, S. van, Ridderinkhof, K. R., Fahrenfort, J. J., Scholte, H. S., & Lamme, V. A. F. (2008). Frontal cortex mediates unconsciously triggered inhibitory control. *Journal of Neuroscience*, *28*, 8053-8062.
- Geurts, H. M., & Embrechts, M. (2008). Language profiles in ASD, SLI and ADHD. *Journal of Autism and Developmental Disorders*, *38*, 1931-1943.
- Geurts, H. M., Grasman, R. P. P. P., Verté, S., Oosterlaan, J., Roeyers, H., Kammen, S. M. van, & Sergeant, J. A. (2008). Intra-individual variability in ADHD, autism spectrum disorders, and Tourette's syndrome. *Neuropsychologia*, *46*, 3030-3041.
- Geurts, H. M., Hartman, C. A., Verté, S., Oosterlaan, J., Roeyers, H., & Sergeant, J. A. (2008). Pragmatics fragmented: The factor structure of the Dutch Children's Communication Checklist. *International Journal of Language and Communication Disorders*, *99999*:1.
- Geurts, H. M., Luman, M., & Meel, C. S. (2008). What's in a game: The effect of social motivation on interference control in boys with ADHD and autism spectrum disorders. *Journal of Child Psychology and Psychiatry*, *49*, 848-857.
- Hell, J. G. van, & Groot, A. M. B. de (2008). Sentence context modulates visual word recognition and translation in bilinguals. *Acta Psychologica*, *128*, 431-451.
- Holleman, B. C., & Murre, J. M. J. (2008). Getting from neuron to checkmark: Models and methods in cognitive survey research. *Applied Cognitive Psychology*, *22*, 709-732.
- Janssen, S. M. J., & Murre, J. M. J. (2008). Reminiscence bump in autobiographical memory: Unexplained by novelty, emotionality, valence, or importance of personal events. *Quarterly Journal of Experimental Psychology*, *61*, 1847-1860.
- Janssen, S. M. J., Murre, J. M. J., & Meeter, M. (2008). Reminiscence bump in memory for public events. *European Journal of Cognitive Psychology*, *20*, 738-764.
- Jehee, J. F. M., & Murre, J. M. J. (2008). The scalable mammalian brain: Emergent distributions of glia and neurons. *Biological Cybernetics*, *98*, 439-445.
- Karmanov, D., & Hamel, R. (2008). Assessing the restorative potential of contemporary urban environment(s): Beyond the nature versus urban dichotomy. *Landscape and Urban Planning*, *86*, 115-125.
- Koch, B. C. P., Nagtegaal, J. E., Hagen, E. C., Dorp, W. Th. van, Boringa, J. B. S., Kerkhof, G. A., & Wee, P. M. ter (2008). Subjective sleep efficiency of hemodialysis patients. *Clinical Nephrology*, *70*, 411-418.

- Koch, B. C. P., Nagtegaal, J. E., Hagen, E. C., Westerlaken, M. M. L van der, Boringa, J. B. S., Kerkhof, G. A., & Wee, P. M. ter (2008). The effects of melatonin on sleep-wake rhythm of daytime haemodialysis patients: A randomized, placebo-controlled, cross-over study (EMSCAP study). *British Journal of Clinical Pharmacology*, *67*, 68-75.
- Kreukels, B. P. C., Dam, F. S. A. M. van, Ridderinkhof, K. R., Boogerd, W., & Schagen, S. B. (2008). Persistent neurocognitive problems after adjuvant chemotherapy for breast cancer. *Clinical Breast Cancer*, *8*, 80-87.
- Kreukels, B. P. C., Hamburger, H. L., Ruiten, M. B. de, Dam, F. S. A. M. van, Ridderinkhof, K. R., Boogerd, W., & Schagen, S. B. (2008). ERP amplitude and latency in breast cancer survivors treated with adjuvant chemotherapy. *Clinical Neurophysiology*, *119*, 533-541.
- LaCroix, J., Postma, E., Herik, J. van den, & Murre, J. M. J. (2008). Toward a visual cognitive system using active top-down saccadic control. *International Journal of Humanoid Robotics*, *5*, 225-246.
- Linden, M. van der, Murre, J. M. J., & Turennout, M. (2008). Birds of a feather flock together: Experience-driven formation of visual object categories in human ventral temporal cortex. *PLoS ONE*, *3*, e3995.
- Marzocchi, G. M., Oosterlaan, J., Zuddas, A., Cavolina, P., Geurts, H., Redigilo, D., Vio, C., & Sergeant, J. A. (2008). Contrasting deficits on executive functions between ADHD and reading disabled children. *Journal of Child Psychology and Psychiatry*, *49*, 543-552.
- Muslimovic, D., Post, B., Speelman, J. D., Schmand, B., & Haan, R. J. de (2008). Determinants of disability and quality of life in mild to moderate Parkinson disease. *Neurology*, *70*, 2241-2247.
- Schilt, T., Win, M. M. L. de, Jager, G., Koeter, M. W., Ramsey, N. F., Schmand, B., & Brink, W. van den (2008). Specific effects of ecstasy and other illicit drugs on cognition in poly-substance users. *Psychological Medicine*, *38*, 1309-1317.
- Schilt, T., Win, M. M. de, Koeter, M., Jager, G., Korf, D. J., Brink, W. van den, & Schmand, B. (2008). No evidence of decrease in cognitive function in users of low-dose ecstasy - Reply. *Archives of General Psychiatry*, *65*, 236-237.
- Schmand, B. A., Jonghe, J. F. de, & Merkelbach, H. L. (2008). A patient with feigned mental incompetence requiring medical treatment. *Nederlands Tijdschrift voor Geneeskunde*, *152*, 174-175.
- Scholte, H. S., Jolij, J., Fahrenfort, J. J., & Lamme, V. A. F. (2008). Feedforward and recurrent processing in scene segmentation: electroencephalography and functional magnetic resonance imaging. *Journal of Cognitive Neuroscience*, *20*, 2097-2109.

- Sligte, I. G., Scholte, H. S., & Lamme, V. A. F. (2008). Are there multiple visual short-term memory stores? *PLoS ONE*, *3*, e1699.
- Strien, N. M. van, Scholte, H. S., & Witter, M. P. (2008). Activation of the human medial temporal lobes by stereoscopic depth cues. *Neuroimage*, *40*, 1815-1823.
- Talamini, L. M., Nieuwenhuis, I. L. C., Takashima, A., & Jensen, O. (2008). Sleep directly following learning benefits consolidation of spatial associative memory. *Learning & Memory*, *15*, 233-237.
- Vandenbroucke, M. W. G., Scholte, H. S., Engeland, H. van, Lamme, V. A. F., & Kemner, C. (2008). Coherent versus component motion perception in autism spectrum disorder. *Journal of Autism and Developmental disorders*, *38*, 941-949.
- Vandenbroucke, M. W. G., Scholte, H. S., Engeland, H. van, Lamme, V. A. F., & Kemner, C. (2008). A neural substrate for atypical low-level visual processing in autism spectrum disorder. *Brain*, *131*, 1013-1024.
- Wouters, H., Gool, W. A. van, Schmand, B., & Lindeboom, R. (2008). Revising the ADAS-cog for a more accurate assessment of cognitive impairment. *Alzheimer Disease & Associated Disorders*, *22*, 236-244.

### **1.a.2 In refereed journals issued in other languages**

- Bierman, D. J., & Duif, C. P. (2008). Nader onderzoek nodig naar mogelijke biologische effecten EM-velden. *Nederlands Tijdschrift voor Natuurkunde*, *74*, 22-23.
- Hen, M. de, & Geurts, H. M. (2008). Is neurofeedback effectief bij kinderen met ADHD? *Tijdschrift voor Neuropsychologie*, *2*, 14-27.
- Molendijk, N., & Geurts, H. M. (2008). Het zelfconcept van kinderen met ADHD. *Kind en adolescent*, *29*, 162-179.
- Schmand, B., Groenink, S. C., & Dungen, M. (2008). Letter fluency: Psychometric properties and Dutch normative data. *Tijdschrift voor Gerontologie en Geriatrie*, *39*, 64-76.

### **1.b In other journals**

-

### **1.c Book chapters**

- Frijda, N. H. (2008). How do emotions work? In I. Etxebarria, A. Aritzeta, E. Barberá, M. Chóliz, M. P. Jiménez, F. Martínez, P. M. Mateos & D. Páez (Eds.), *Emoción y motivación: Contribuciones actuales Vol. I* (pp. 1-26). Madrid: Asociación de Motivación y Emoción.
- Groot, A. M. B. de (2008). Apprentissage du vocabulaire d'une langue étrangère: Le stade de la d'énomination. In M. Kail, L. Fayol & M.

- Hickmann (Eds.), *Apprentissage des langues premières et secondes* (pp. 303-315). Paris: CNRS Editions.
- Lamme, V.A.F. (2008). Control, free will and other humbug. In I. van Keulen (Ed.), *Brain visions: How the brain sciences could change the way we eat, communicate, learn and judge* (pp. 396-407). The Hague: STT.
- Lorist, M. M., & Snel, J. (2008). Caffeine, sleep and quality of life. In J. C. Verster, S. R. Pandi-Perumal & D. Streiner (Eds.), *Sleep and quality of life in clinical medicine* (pp. 325-322). Humana Press.
- Moormann, P. P., Bermond, B., Vorst, H. C. M., Bloemendaal, A. F. T., Teijn, S. M., & Rood, L. (2008). New avenues in alexithymia research: The creation of alexithymia types. In A. J. J. M. Vingerhoets, I. Nyklicek & A. Vingerhoets (Eds.), *Emotion regulation. conceptual and clinical issues* (pp. 27-42). New York: Springer.
- Murre, J. M. J. (2008). Cognitive learning systems: A first step towards personalised learning. In I. van Keulen (Ed.), *Brain visions: How the brain sciences could change the way we eat, communicate, learn and judge* (pp. 284-291). The Hague: STW.
- Raaijmakers, J. G. W. (2008). Mathematical models of human memory. In H. L. Roediger (Ed.), *Cognitive psychology of memory* (pp. 445-466). Oxford: Elsevier.

#### **1.d Edited books**

-

#### **2. Monographs**

-

#### **3. Ph.D. Theses**

##### **3.a Internally prepared**

- Griffioen, A. R. (June 2008). *Self-repair in the brain: A neural network perspective* (pp. 172). Universiteit van Amsterdam. Promotors: J. M. J. Murre & J. G. W. Raaijmakers.
- Otten, M. (April 2008). *Discourse-based lexical anticipation: The nature and contextual basis of predictions in language comprehension* (pp. 156). Universiteit van Amsterdam. Promotor: J. G. W. Raaijmakers; co-promotor: J. J. A. van Berkum.

### 3.b Externally prepared

Rodrigues, P. M. A. (September 2008). *Modeling category learning* (pp. 128). Universiteit van Amsterdam. Promotor: J. M. J. Murre.

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

Vandenbroucke, M. W. G. (May 2008). *On the neural basis of atypical visual perception in Autism Spectrum Disorder* (pp. 151). Universiteit Utrecht. Promotores: H. van Engeland, C. Kemner, & V. A. F. Lamme; co-promotor: H. S. Scholte.

## 4. Professional publications

Eikelenboom, P., Gool, W. A. van, Schmand, B., & Mast, R. van der (2008). Delirium, dementie, en andere cognitieve stoornissen. In W. Vandereycken, C. A. L. Hoogduin & P. M. G. Emmelkamp (Eds.), *Handboek psychopathologie, deel 1: Basisbegrippen* (pp. 63-106). Houten: Bohn, Stafleu van Loghum.

Frijda, N. H. (2008). The psychologists' point of view. In M. Lewis, J. M. Haviland-Jones & L. Fledman Barrett (Eds.), *Handbook of emotions (third edition)* (pp. 68-87). New York: Guilford.

Hamel, R. (2008). De beleving van ruimte in de omgeving. *BLIND!*, 18, <http://www.ziedaar.nl/article.php?id=327>.

Kerkhof, G. A. (2008). Slaap- en waakstoornissen. In W. Vandereycken, C. A. L. Hoogduin & P. M. G. Emmelkamp (Eds.), *Handboek psychopathologie deel 1: Basisbegrippen* (pp. 395-420). Houten: Bohn Stafleu van Loghum.

Lamme, V. A. F. (2008). Control, vrije wil en andere kletsboek. *Justitiële Verkenningen*, 34(1), 76-88.

Meier, A. M., & Hofman, W. F. (2008). Assessment en protocollaire behandeling van slaapproblemen bij kinderen. In C. Braet & S. Bögels (Eds.), *Protocollaire behandelingen voor kinderen met psychische klachten* (pp. 49-73). Amsterdam: Boom.

Phaf, R. H., Hamel, R., Oostrom, M. S. W. van, & Weber, M. (2008). *Gevaarsignalen: De vroege herkenning van geweldplegers en hun motieven. Eindrapport van het project Gevaarsignalen uitgevoerd door de programmagroep Psychonomie van de Universiteit van Amsterdam voor de Kenniskring Openbare Orde en Gevaarbeheersing*. Amsterdam: Programmagroep Psychonomie, Afdeling Psychologie, Universiteit van Amsterdam.

Oord, S. van der, & Geurts, H. M. (2008). DBC's en stepped care in de kinderen jeugd-GGZ. *Maandblad Geestelijke Volksgezondheid*, 63, 802-807.

Ridderinkhof, K. R., Stallen, M., & Winden, F. van (2008). Never trust a stranger - Work on ties that bind. *VOX: Research-based policy analysis and commentary from leading economists*, Oct. 13th.

## 5. Popular publications

Lamme, V. A. F. (2008). Tovenarij. *De Anesthesioloog*, december, 22.

Snel, J. (2008). Bestaat suikerverslaving. *Suikerinfo*, 18-12.

Snel, J. (2008). De nieuwjaarskater. *AdFundum, Vakblad voor de Drankenbranche*, 16(1), 16-17.

Snel, J. (2008). Niet-roken is minder drinken? *AdFundum, Vakblad voor de Drankenbranche*, 16(2), 18-19.

Snel, J. (2008). Nippen en proeven. *AdFundum, Vakblad voor de Drankenbranche*, 16(3), 20-21.

Snel, J. (2008). Nederland waterland. *AdFundum, Vakblad voor de Drankenbranche*, 16(4), 22-23.

Snel, J. (2008). Sportieve drinkers. *AdFundum, Vakblad voor de Drankenbranche*, 16(5), 10-11.

Snel, J. (2008). Promillage. *AdFundum, Vakblad voor de Drankenbranche*, 16(6/7), 18-19.

Snel, J. (2008). The morning after. *AdFundum, Vakblad voor de Drankenbranche*, 16(8), 24-25-19.

Snel, J. (2008). Geuronderzoek in Sesamstraat. *AdFundum, Vakblad voor de Drankenbranche*, 16(9), 20-21.

Snel, J. (2008). Nooit te oud. *AdFundum, Vakblad voor de Drankenbranche*, 16(10), 20-21.

Snel, J. (2008). Kredietcrisis en drank. *AdFundum, Vakblad voor de Drankenbranche*, 16(11), 18-19.

Snel, J. (2008). Joi de vivre. *AdFundum, Vakblad voor de Drankenbranche*, 16(12), 16-17.

## OTHER PROOFS OF PRODUCTIVITY

### 6. Editorships

Groot, A. M. B. de

*Bilingualism: Language and Cognition (Editorial Board member)*

*Interpreting (Advisory Board member)*

Lamme, V.A.F.

*Vision Research (Editor)*

Murre, J.M.J.

*Neural Networks (Action Editor)*

Raaijmakers, J. G. W.

*Quarterly Journal of Experimental Psychology (Associate Editor)*

## **7. Organisation of conferences and symposia**

Raaijmakers, J. G. W., Maas, H. L. J. van der, & Murre, J. M. J. Organisation of the CSCA Summer School 2008 *Cognitive Modeling: Contrasting Perspectives*. Amsterdam, The Netherlands, 9-24 June.

Raaijmakers, J. G. W., Maas, H. L. J. van der, & Murre, J. M. J. Organisation of the CSCA Workshop *Cognitive Modeling: Contrasting Perspectives*. Amsterdam, The Netherlands, 25-26 June.

Raaijmakers, J. G. W., Maas, H. L. J. van der, & Murre, J. M. J. Organisation of the CSCA Symposium *Distributed Processing Models*. Amsterdam, The Netherlands, 27 June.

Rouw, R. (2008). Organisation of the symposium *Individual differences studies in Cognitive Neuroscience*, Amsterdam, October.

## **8. Research grants**

Lamme, V. A. F. (2009 - 2014). Advanced Investigator Grant, European Research Council (€2.344.800) for the project 'A new definition of consciousness.'

Schmand, B. (2008 - 2011). A grant (€304.000) from The Michael J. Fox Foundation for Parkinson's Research for the project 'Cognitive decline in Parkinson's disease.'

Talamini, L. M. (2009 - 2014). An NWO VIDI grant (€600.000) for the project 'Sleep and memory consolidation: cleaning up the hard disk.'

## **9. Keynote speeches at conferences**

Geurts, H. M. (February, 2008). *Pragmatiek in Ontwikkelingsstoornissen: De CCC-2*. Vereniging voor Klinische Linguïsten, Utrecht.

Lamme, V. A. F. (May, 2008). *How neuroscience will change our view on consciousness*. Psychologie und Gehirn, Magdeburg, Germany.

- Lamme, V. A. F. (June 2008). *How neuroscience should attack the hard problem*. Association for the Scientific Study of Consciousness (ASSC-12), Taipei, Taiwan.
- Lamme, V. A. F. (September 2008). Opening Academic Year University of Amsterdam, and 'experimental intermezzo' with Ronald Plasterk. Amsterdam
- Lamme, V. A. F. (November, 2008). *A neural stance on consciousness*. First Conference of the COST initiative 'Consciousness: a transdisciplinary, integrative approach', Ghent, Belgium.
- Rouw, R. (July 2008). *Neurological basis of grapheme-color synesthesia*. 5<sup>th</sup> Asia-Pacific Conference on Vision, Brisbane, Australia.

## 10. Collaborations

- Geurts, H. M. (2008 - present). Collaboration with Salomon, M.; M.I.N.D Institute, Medical Centre of the University of Davis. *Cognitive control in autism spectrum disorders and ADHD*.
- Hofman, W. F. (2006 - present). Collaboration with Kamp, I. van; RIVM, Bilthoven. *Psychophysiological aspects of noise sensitivity*.
- Raaijmakers, J. G. W. (1977- present). Collaboration with Shiffrin, R. M.; Department of Psychology Indiana University, Bloomington, Indiana USA. *Mathematical modeling of memory retrieval*.
- Raaijmakers, J. G. W. (2002- present). Collaboration with Rotterdam Memory Group (Camp, G., Pecher, D. & Zeelenberg, R.); Psychology Department, Erasmus University Rotterdam. *Inhibition in memory retrieval*.
- Rouw, R. (2008 - present). Collaboration with Kosslyn, S. M.; Department of Psychology, Harvard University. *Visual mental imagery and structural brain properties*.
- Talamini, L. M. (2004 - present). Collaboration with Jensen, O., Fernandez, G., Takashima, A. & Nieuwenhuis, I.; Donders centre for Cognitive Neuroimaging, Nijmegen. *Memory consolidation*.
- Talamini, L. M. (2004 - present). Collaboration with McNaughton, B.; Departments of Psychology and Physiology, University of Arizona. *In silico and in vivo studies on memory consolidation*.

