

Barbara R. Braams, PhD

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PERSONAL PROFILE

My research focuses on adolescent neurocognitive development and decision-making. I am especially interested in (real life) risk-taking behavior and social influence on risk-taking behavior. To answer my research questions I use a variety of techniques including fMRI, computational modeling, hormone assessments and laboratory tasks. I am highly motivated to disseminate my work to the general public. I regularly participate in outreach event such as public lectures, give interviews in newspapers and on television, and I am the author of a popular science book 'Het Riskante Brein'.

ACADEMIC POSITIONS

Assistant Professor (2018-present)

Vrije Universiteit, Amsterdam

**Position funded by a NWO VENI grant awarded to B.R. Braams*

Postdoctoral Research Fellow (2016-2018)

Harvard University

Affective Neuroscience and Development Lab, PI: Dr. Leah Somerville

**Position funded by a NWO Rubicon grant awarded to B.R. Braams*

EDUCATION

Ph.D., Developmental Cognitive Neuroscience (2011-2015)

Leiden University

Thesis Title: Adolescent Risk Taking

Supervisor: Prof. Dr. Eveline Crone

2014 Visiting researcher

Affective Neuroscience and Development Lab, Harvard University

M.Sc. Res, Brain and Cognitive Sciences, *Cum Laude* (2008-2010)

Track Cognitive Neuroscience, University of Amsterdam

2010 Internship (12 months)

Stanford Psychophysiological Laboratory (SPL), Stanford University

2009 Internship (6 months)

Behavioral and Clinical Neuroscience Institute (BCNI), University of Cambridge, UK

B.Sc., Psychology (2004-2008)

University of Groningen

SCIENTIFIC PUBLICATIONS

Selected Peer-Reviewed Publications

1. **Braams, B.R.**, Van Duijvenvoorde, A.C.K., Peper, J.S. & Crone, E.A. (2015). Longitudinal changes in adolescent risk-taking: A comprehensive study of neural responses to rewards, pubertal development and risk-taking behavior. *The Journal of Neuroscience*, 35(18), 7226-7238.
2. **Braams, B. R.**, Güroğlu, B., de Water, E., Meuwese, R., Koolschijn, P. C.M.P., Peper, J. S., & Crone, E. A. (2014). Reward-related neural responses are dependent on the beneficiary. *Social Cognitive and Affective Neuroscience*, 9(7), 1030-1037.
3. **Braams, B. R.**, Peters, S., Peper, J. S., Güroğlu, B., & Crone, E. A. (2014). Gambling for self, friends, and antagonists: Differential contributions of affective and social brain regions on adolescent reward processing. *NeuroImage*, 100, 281-289.
4. **Braams, B. R.**, & Crone, E. A. (2017). Longitudinal changes in social brain development: processing outcomes for friend and self. *Child Development*, 88(6), 1952-1965.
5. **Braams, B.R.**, Davidow, J.Y. & Somerville, L.H. (2019). Developmental patterns of change in the influence of safe and risky peer choices on risky decision making. *Developmental Science*, e12717.

Additional Peer-Reviewed Publications

6. **Braams, B. R.**, & Crone, E. A. (2017). Peers and parents: A comparison between neural activation when winning for friends and mothers in adolescence. *Social Cognitive and Affective Neuroscience*, 12(3), 417-426.
7. **Braams, B.R.**, Peper, J.S., Van der Heide, D., Peters, S. & Crone, E.A. (2016). Nucleus Accumbens response to rewards related to alcohol use in adolescents and young adults. *Developmental Cognitive Neuroscience*, 17, 83-93.
8. **Braams, B. R.**, Blechert, J., Boden, M. T., & Gross, J. J. (2012). The effects of acceptance and suppression on anticipation and receipt of painful stimulation. *Journal of Behavior Therapy and Experimental Psychiatry*, 43(4), 1014-1018.
9. Meuwese, R.*, **Braams, B.R.*** & Güroğlu, B. (2018). What lies beneath adolescent likeability among peers? Exploring the motivational role of Nucleus Accumbens responsivity to self-serving and prosocial rewards. *Developmental Cognitive Neuroscience*, 34, 124-129.
*indicates equal author contribution
10. Crockett, M. J., **Braams, B. R.**, Clark, L., Tobler, P. N., Robbins, T. W., & Kalenscher, T. (2013). Restricting Temptations: Neural Mechanisms of Precommitment. *Neuron*, 79(2), 391-401.
11. Peters, S., **Braams, B. R.**, Raijmakers, M. E., Koolschijn, P.C.M.P., & Crone, E. A. (2014). The Neural Coding of Feedback Learning across Child and Adolescent Development. *Journal of Cognitive Neuroscience*, 26(8), 1705-1720.
12. de Water, E., **Braams, B. R.**, Crone, E. A., & Peper, J. S. (2013). Pubertal maturation and sex steroids are related to alcohol use in adolescents. *Hormones and behavior*, 63(2), 392-397.
13. Van Duijvenvoorde, A. C. K., Peters, S., **Braams, B. R.**, & Crone, E. A. (2016). What motivates adolescents? Neural responses to rewards and their influence on adolescents' risk taking, learning, and cognitive control. *Neuroscience & Biobehavioral Reviews*, 70, 135-147.
14. Peters, S., Peper, J.S., Van Duijvenvoorde, A.C.K., **Braams, B.R.** & Crone, E.A. (2016). Amygdala-orbitofrontal connectivity predicts alcohol use two years later: A longitudinal neuroimaging study on alcohol use in adolescence. *Developmental Science*, 20(4), e12448.
15. Van Duijvenvoorde, A.C.K., Achterberg, M., **Braams, B.R.**, Peters, S. & Crone, E.A. (2015). Testing a dual-systems model of adolescent brain development using resting-state connectivity analyses. *NeuroImage*, 124, 409-420.

16. Blechert, J., Wilhelm, F. H., Williams, H., **Braams, B. R.**, Jou, J., & Gross, J. J. (2015). Reappraisal facilitates extinction in healthy and socially anxious individuals. *Journal of Behavior Therapy and Experimental Psychiatry*, 46, 141-150.
17. Peper, J. S., Mandl, R. C., **Braams, B. R.**, de Water, E., Heijboer, A. C., Koolschijn, P. C. M. P, & Crone, E. A. (2013). Delay discounting and frontostriatal fiber tracts: a combined DTI and MTR study on impulsive choices in healthy young adults. *Cerebral Cortex*, 23(7), 1695-1702.
18. Van der Meulen, M.*, Veldhuis, J.*, **Braams, B.R.**, Peters, S., Konijn, E.A., & Crone, E.A. (2017) Brain Activation upon Ideal-Body Media Exposure and Peer Feedback in Late Adolescent Girls. *Cognitive, Affective and Behavioral Neuroscience*, 17(4), 712-723. *authors contributed equally
19. Schreuders, E., **Braams, B.R.**, Blankenstein, N.E., Peper, J.S., Güroğlu, B. & Crone, E.A. (2018). Contributions of Reward Sensitivity to Ventral Striatum Activity across Adolescence and Early Adulthood. *Child Development*, 89(3), 797-810.
20. Spaans, J., Burke, S.M., Altikulaç, S., **Braams, B.R.**, Op de Macks, Z.A. & Crone, E.A. (2018). Win for your kin: neural responses to personal and vicarious rewards when mothers win for their adolescent children. *PloS one*, 13(6), e0198663.
21. Peper, J.S., **Braams, B.R.**, Blankenstein, N.E., Bos, M.G.N. & Crone, E.A. (2018). Development of multiple-faceted risk-taking and the relations to testosterone: a longitudinal study. *Child Development*, 89(5), 1887-1907.
22. Goddings, A.L., Beltz, A., Peper, J.S., Crone, E.A. & **Braams, B.R.** (in press). Understanding the role of puberty in structural and functional development of the adolescent brain. *Journal of Research in Adolescence*.
23. Van Atteveldt, N.M., Van Kesteren, M.T.R., **Braams, B.R.** & Krabbendam, L. (in press). The neuroscience of learning and development: towards more ecologically valid neuroimaging. *Frontline Learning Research*.

Manuscripts under review

24. Li, R., Utevsy, A., Huettel, S., **Braams, B.R.**, Peters, S., Crone, E., & van Duijvenvoorde, A. C. (2018). Developmental maturation of the precuneus as a functional core of the default-mode network. *bioRxiv*, 419028.

Book Chapters

1. **Braams, B.R.**, Van Leijenhorst, L., & Crone, E.A. (2014). Risks, Rewards, and the Developing Brain in Childhood and Adolescence. In V.F. Reyna & V. Zayas (Eds.) *The neuroscience of risky decision making*. Washington DC: American Psychological Association.

RESEARCH GRANTS & FUNDING

- NWO VENI, €250.000 (2017)
- NWO Rubicon, €135.00 (2016)
- Leiden University Fund Scholarship for a 6 week research visit to Harvard, €2000 (2014)

AWARDS

- Young Talent Prize, Dutch Neuroscience Meeting, €500,- (2018)
- FLUX society travel award, \$500 (2017)
- Early Career Scholar, Society for Research on Adolescence, work group meeting 'The New Biobehavioral Developmental Science of Puberty' (2016)
- Best article award, Faculty of Social Sciences, Leiden University €500,- (2015)
- Jacobs Foundation Best Abstract Award, SRCD \$1000 (2015)
- Best abstract award, Donders Discussions (2014)

- Best blog award, Leiden Psychology Blog (2014)

INVITED TALKS

1. Current perspectives on adolescent risk-taking, symposium, Leiden University; Talk: "Developmental patterns of change in the influence of safe and risky peer choices on risky decision making" *slides available on OSF: [bit.ly/2N9We5n](https://osf.io/bit.ly/2N9We5n)
2. DNTS, Clearwater, FL, USA (2018); Talk: 'Peer influence on adolescent decision making: dissection of relevant constructs'
3. Dutch Neuroscience Meeting, Lunteren (2018); Talk: 'Adolescent risky decision making: identification of relevant factors' ***Young Talent Prize Symposium**
4. Modeling Developmental Change Workshop, Portland, OR (2017); Talk: 'Non-linear mixed effects modeling'
5. Free University, Amsterdam, Krabbendam Lab (2017); Talk: 'Adolescent Risk Taking'
6. University College London, London, Blakemore Lab (2014); Talk: 'Risks, rewards and the adolescent brain'
7. Harvard University, Cambridge, Affective Neuroscience and Development Lab (2014); Talk: 'Risks, rewards and the adolescent brain'

CONFERENCE PRESENTATIONS & CHAIRED SESSIONS

1. ESSAN, Leiden, The Netherlands (2018); Flash talk: 'Developmental patterns of change in the influence of safe and risky peer choices on risky decision making'
2. Harvard/MIT semi-annual Women in Psychology symposium, Cambridge, MA (2018); Flash Talk: 'Developmental trajectories of social influence on risky and ambiguous decision making'
3. FLUX, Portland, OR, USA (2017); Flash talk: 'Developmental trajectories of social influence on risky and ambiguous decision making'
4. SRA, Baltimore, MD, USA (2016); Talk: 'A Longitudinal brain imaging approach to test adolescent specific changes in risk taking and cognitive control'
5. NVP, Egmond aan Zee, The Netherlands (2015); Talk: 'Longitudinal changes in social brain development' ***Session chair**
6. SRCD, Leiden, The Netherlands (2015); Flash talk as part of the Jacobs Foundation award: 'Mothers matter during adolescence'
7. FLUX, Leiden, The Netherlands (2015); ***Session chair**
8. ECPD, Braga, Portugal (2015); Talk: 'Longitudinal changes in adolescent risk taking'
9. Peer relationship meeting (PRO), Groningen, The Netherlands (2015); Talk: 'Reward processing in adolescence: a role for social context'
10. Donders Discussions, Nijmegen, The Netherlands (2014); Flash talk: 'Gambling for self, friends and antagonists: the influence of social context on striatum responses in adolescence' ***Best abstract award**
11. Social Brain Conference, Copenhagen (2014); Talk: 'Reward processing in adolescence: contributions of social context'
12. INS, Amsterdam (2013); Talk: 'Reward processing in adolescence: a role for social context'
13. VNOP, Wageningen (2013); Talk 'Reward processing in adolescence' ***Session chair**
14. ESCAN, Marseille (2013); Talk 'Reward processing in adolescence'
15. Leiden Institute for Brain and Cognition (LIBC), Leiden (2012); Talk: 'Reward processing in adolescence'
16. LIBC Scientific Advice Board meeting, Leiden (2012); Talk: 'Reward processing in adolescence' NVP, Egmond aan Zee (2011); Talk 'Reward Processing in adolescence'

POSTER PRESENTATIONS

1. FLUX, Berlin, Germany (2018) 'Social influence on risky and ambiguous decision making in adolescence'
2. SANS, New York, NY (2018) 'Information about others' choices differentially influences adolescent and young adult decision making'
3. Big Data, Little Brains, Chapel Hill, NC (2018) 'Information about others' choices differentially influences adolescent and young adult decision making'
4. SANS, Los Angeles, CA (2017) 'Social influence on risky decision making in adolescence'
5. FLUX, St. Louis, MO (2016) 'Social influence on adolescent ambiguous and risky decision-making'
6. FLUX, Leiden, The Netherlands (2015) 'Longitudinal analysis of social brain development'
7. CNS, Boston, MA (2014) 'Adolescent reward processing: a longitudinal study'
8. CNS, San Francisco, CA (2013) 'Developmental patterns of neural responses differ for self and friends'
9. SRCD, Seattle, WA (2013) 'Developmental patterns of neural responses differ for self and friends'
10. NVP, Egmond aan Zee, The Netherlands (2013) 'Adolescent reward processing: differential contributions of affective and social brain regions'
11. ESCON workshop, Ghent, Belgium (2013) 'Adolescent reward processing: differential contributions of affective and social brain regions'
12. University of Maryland Summer School, College Park, MD (2012) 'Developmental patterns of neural responses to rewards differ for self and friends'

OPEN SCIENCE

Shared data and materials

1. Dataset from Braams et al., 2019 - Dev. Sci. shared for follow-up analysis
2. Shared analysis scripts for Braams et al., 2019 - Dev. Sci. - <https://osf.io/p8a2j/>
3. Downloadable version of the task used in Braams et al., 2019 - Dev. Sci. - <https://osf.io/kpa75/>
4. Slides Talk: "Developmental patterns of change in the influence of safe and risky peer choices on risky decision making", presented at the Current Perspectives on Adolescent Risk Taking Symposium, Leiden University, Feb 15th 2019 - bit.ly/2N9We5n

Open science policy

- Opinion piece for De Volkskrant in collaboration with Dr. Lennart de Groot "Jonge wetenschappers verdienen zekerheid - een snelle invoering van Open Access draagt daar niet aan bij" - Dec 4th 2018
- Invited talk to discuss the position of Early Career Scientists in the transition towards Open Access at the Consultation Meeting on Plan S, organised by the Netherlands Organisation for Scientific Research (NWO), Jan 31st 2019
- Invited talk in collaboration with Dr. Lennart de Groot to inform government officials about the transition towards Open Science "Open Science and Open Access from the perspective of scientists", March 5th, 2019
- Panel member at VU Library Live Talkshow on Open Science, March 14th 2019

REVIEWING EXPERIENCE

Ad hoc peer reviewer for:

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| • Biological Psychology | • Developmental Neuroscience |
| • Child Development | • Development and Psychopathology |
| • Cognitive Development | • Developmental Science |
| • Developmental Cognitive Neuroscience | • Emotion |

- Journal of Behavioral Decision Making
- Journal of Experimental Psychology: General
- Journal of Research on Adolescence
- NeuroImage
- Neuropsychologia
- Perspectives on Psychological Science
- PLoS One
- Proceedings B
- Psychological Science
- Psychological Methods
- Psychoneuroendocrinology
- Social Cognitive and Affective Neuroscience
- Social Development

Invited grant reviewer for:

- European Research Council
- Czech Science Foundation
- Luxembourg National Research Fund
- United States-Israel Binational Science Foundation

MENTORSHIP

1. Sibel Altikulaç, (Vrije Universiteit, Amsterdam), Graduate research mentorship (co-promotor), (2018 - present)
2. Hester Sijtsma, (Vrije Universiteit, Amsterdam), Graduate research mentorship (co-promotor), (2018 - present)
3. Brad Riew (Harvard University), Undergraduate research mentorship, (2018)
4. Christina Li (Harvard University), Undergraduate research mentorship, (2018)
5. Lisa Schreuders (Leiden University), Peer mentorship for visiting graduate student (2016)

TEACHING EXPERIENCE

University Teaching Qualification (BKO)

- Obtained (2015)

Course director

- Current Issues in Psychopathology, VU University (2018)

Lecturer

- Pre-University College, Leiden University (2012-2015)
- Introduction to psychology, Erasmus University Rotterdam (2015)
- Social and Emotional Development, Leiden University (2014-2015)

Work Group Coordinator

- Social and Emotional Development, Leiden University (2014-2015)

Work Group Teacher

- Current Issues in Psychopathology, VU University (2018)
- Social and Emotional Development, Leiden University (2011-2013)
- Developmental and Educational Psychology, Leiden University (2012-2013)
- Academic Skills Tutorial, Leiden University (2011-2015)

Masters Thesis Supervisor

1. Inga Orec; Thesis title: '*Interpersonal relationships in times of pubertal development*', Leiden University (2015)
2. Aleksandra Kubica; Thesis title: '*The effect of alcohol consumption on the adolescent brain*', Leiden University (2015)

3. Dianne van der Heide; Thesis title: '*Real-life risk-taking behaviors in adolescents - The relationship between personality, brain activity and risky behavior*', Leiden University (2014)
4. Nicolette Munsters; Thesis title: '*Puberty effect on striatal activity during reward processing for a friend*', Leiden University (2013)
5. Jorien van Hoorn; Thesis title: '*The relationship between pubertal stage and reward-related brain functioning*', Leiden University (2012)
6. Erik de Water; Thesis title: '*Reward-related neural responses correspond with levels of substance use during adolescent development*', Leiden University (2011)

SUMMER PROGRAMS

1. Participant at the Summer Institute for Cognitive Neurosciences 'Brain camp', University of Davis & University of California, Santa Barbara, CA (2015)
2. Participant at the Maryland Neuroimaging Center Summer Institute on Social Developmental Neuroscience (2012)
3. Participant in a two-week summer program 'Neuro-economics', organized by the Cognitive Science Center Amsterdam. (2010) ***Winner of best student poster**
4. Participant in a two-week summer program 'Consciousness and the Brain' organized by the Cognitive Science Center Amsterdam (2009)

PRACTICAL COURSES

- Undergraduate Mentoring, Harvard University (2018)
- Extended Unix/Bash Scripting, Harvard University (2018)
- Presenting skills, Leiden University (2014)
- MATLAB course, UCL, London (2014)
- R course, Harvard University (2014)
- Academic writing in English, Academic Language Center, Leiden University (2013)
- Practical course fMRI, UCL, London (2011)

SCIENTIFIC OUTREACH, CONSULTANCY & POLICY

Membership

Faces of Science, Royal Academy of Sciences, The Netherlands (2014-2016)

Popular Science Books

'Het Riskante Brein', Uitgeverij Unieboek | Het Spectrum

**Press coverage in NRC, Algemeen Dagblad, De Morgen, Het Nieuwsblad, Trouw, Psychologie Magazine & BNR radio*

'Hoe zwaar is licht', Uitgeverij Balans - contributor

Newspaper & magazine articles

Interview NRC

Interview Algemeen Dagblad

Interview Leidsch Dagblad (2x)

Interview J/M Ouders Magazine

Interview Psychology Magazine

Research press coverage in Sp!ts newspaper

Radio

Invited guest at a radio talk show at Radio Rijnwoude

Interview Radio 1

Interview Kennis van Nu

Interview FunX radio
Interview BNR

Television

Contestant 'Nationale Wetenschapsquiz 2017'
Invited guest at 'De Dokter Corrie Show'
Interview Jeugdjournaal
Interview Channel One 'The Adolescent Brain' series

Performance & Art

Participant 'Science Battle' **Science Battle is a science communication theater show*
Volunteer 'It's only human' **Event to teach general public about psychological biases through artwork*
Museum, Science Museum, The Hague, contributor to the 'Illusions' exhibit

Online

Blogger for the Leiden University Psychology Blog, total hits for 8 posts > 236.000
Interview 7days, 7days is an online newspaper for adolescents
Interview kennislink.nl
Interview Science news for students.
Interview for 'The connected researcher' blog, Leiden University

Public Lectures

Lecture 'Why do children learn faster than adults', SPUI25, Amsterdam
Lecture Public Library Amsterdam 'Faces of Science in the library'
Lecture 'Broodje Kennis', Amsterdam
Lecture Youth Center 'South Park', Leiden
Lecture Children's University, Haarlem
Bessensap, NWO, presentation for journalists on adolescent risky driving
Lecture for parents at a primary school 'The adolescent brain'

Consultancy

Consultant BBC documentary 'Child of Our Time'
Consultant Trimbos Institute, short animation to inform parents and adolescents about drugs
Consultant safe driving for adolescents, Regionaal Orgaan Verkeersveiligheid in Gelderland

Outreach Events

Outreach event for high-school students, Harvard University. **Students visited the lab and were shown the facility and attended a lecture about the adolescent brain.*
Co-organizer 'Braintime-festival', **The Braintime festival was an outreach event for all participants in my PhD project. A total of 500 participants and their parents visited museum 'Corpus' in Leiden for a day filled with workshops and science.*
Organizer '3 October University' **A public event with a lecture and an interactive session in which the public could interact with scientists and participate in research*
Young Academy on Wheels, Royal Academy of Sciences

Primary & High School Lectures

Guest teacher primary school 'Brain in adolescence'
Guest teacher biology high school 'Brain in adolescence'
Lecture Picasso Lyceum. Zoetermeer

Invited guest teacher at a primary school for a lecture about the brain

Supervisor thesis high-school students, thesis was awarded a 9,5 out of 10

High school science project supervisor

Workshop leader 'Science Communication', Pre-University College, Leiden University