Like me, or else: Nature, nurture and neural mechanisms of social emotion regulation in childhood

Achterberg, M.

ACKNOWLEDGMENTS

Dankwoord

Dit proefschrift had niet tot stand kunnen komen zonder de steun van vele mensen. De waardevolle contributies van mijn **coauteurs** staan genoemd op pagina 23. Tevens wil ik mijn (huidige en voorgaande) **collega's** van het Brain and Development Research Center bedanken voor de inspirerende en gezellige momenten.

Ik ben bijzonder dankbaar voor de enthousiaste inzet van alle **deelnemende gezinnen** binnen het Samen Uniek tweelingonderzoek. Het verzamelen van al deze data zou onmogelijk zijn zonder de buitenproportionele inzet van het (huidige en voorgaande) **L-CID onderzoeksteam**, hulde en bedankt!

Daarnaast is er een aantal mensen die ik in het bijzonder wil bedanken:

Allereerst **Mara**, wat was het fijn om alles met jou te kunnen delen. Ik bewonder je als wetenschapper en vriendin en heb respect voor jouw doorzettingsvermogen.

Anna, bedankt voor al je adviezen, zowel wetenschappelijk als persoonlijk. Je weet mij altijd enorm te inspireren.

Eveline, ik beschouw het als een voorrecht om met jou te mogen werken. Keer op keer weet je mij te motiveren om mijn passie te volgen. Ik kan mij geen betere mentor wensen en ben dankbaar voor alle kansen die je mij geeft.

Nim, thank you for your hospitality in welcoming me to your lab at Columbia University. My stay in New York City has taught me lots about developmental neuroscience and international collaborations.

Bianca, **Saskia**, en **Lara**, bedankt voor jullie steun en geduld. Ik ben trots en blij dat we een doorstart hebben gemaakt met het onderzoek en kijk uit naar de komende jaren van samenwerking.

Jorien, bedankt voor je opbeurende woorden, waardering en fijne koffie momenten.

Mijn beste vriendinnetjes **Marloes**, **Marcella, Yvonne** en **Miranda**: Bedankt voor jullie decennialange vriendschap. Het gevoel van trots dat jullie uitstralen is er één die alleen mijn eigen moeder zou kunnen evenaren.

Mijn lieve familie - in het bijzonder **Kevin**, **papa**, **Jacques** en **Anky** - bedankt voor jullie steun, interesse en onvoorwaardelijke liefde.

Oma, **Trix**, **Hanneke** en wooncentrum **de Wulverhorst**: jullie liefdevolle zorg voor mama geeft mij de ruimte om mijn dromen te volgen, zeer veel dank daarvoor.

Liefste **Arjen**, tranen van geluk, ellende en frustratie: Ze vielen allemaal op jouw schouders. Bedankt voor je grenzeloze liefde en je onuitputtelijke geduld. Jij bent mijn rots, mijn haven, mijn thuis: Ik hou van je.

Tien jaar ontwikkelingspsychologie valt in het niet met wat ik elke dag van mijn zoon leer, bedankt lieve **Dex**. Voor jouw liefde leef ik.

REFERENCES

Referenties

A

Achterberg, M., Bakermans-Kranenburg, M. J., van Ijzendoorn, M. H., van der Meulen, M., Tottenham, N. & Crone, E. A. (2018a) 'Distinctive heritability patterns of subcortical-prefrontal cortex resting state connectivity in childhood: A twin study', Neuroimage.

Achterberg, M., Peper, J. S., van Duijvenvoorde, A. C., Mandl, R. C. & Crone, E. A. (2016a) 'Frontostriatal White Matter Integrity Predicts Development of Delay of Gratification: A Longitudinal Study', J Neurosci, 36(6), pp. 1954-1961.

Achterberg, M. & van der Meulen, M. (2019) 'Genetic and environmental influences on MRI scan quantity and quality', Dev Cogn Neurosci, 38, p. 100667.

Achterberg, M., van Duijvenvoorde, A. C., Bakermans-Kranenburg, M. J. & Crone, E. A. (2016b) 'Control your anger! The neural basis of aggression regulation in response to negative social feedback', Soc Cogn Affect Neurosci, 11(5), pp. 712-720.

Achterberg, M., van Duijvenvoorde, A. C. K., van der Meulen, M., Bakermans-Kranenburg, M. J. & Crone, E. A. (2018b) 'Heritability of aggression following social evaluation in middle childhood: An fMRI study', Hum Brain Mapp, 39(7), pp. 2828-2841.

Achterberg, M., van Duijvenvoorde, A. C. K., van der Meulen, M., Euser, S., Bakermans-Kranenburg, M. J. & Crone, E. A. (2017) 'The neural and behavioral correlates of social evaluation in childhood', Dev Cogn Neurosci, 24, pp. 107-117.

Adolphs, R. (2009) 'The social brain: neural basis of social knowledge', Annu Rev Psychol, 60, pp. 693-716.

Akaike, H. (1974) 'New Look at Statistical-Model Identification', Ieee Transactions on Automatic Control, Ac19(6), pp. 716-723.

Andersson, J. L. & Skare, S. (2002) 'A model-based method for retrospective correction of geometric distortions in diffusion-weighted EPI', Neuroimage, 16(1), pp. 177-199.

Andersson, J. L., Skare, S. & Ashburner, J. (2003) 'How to correct susceptibility distortions in spin-echo echo-planar images: application to diffusion tensor imaging', Neuroimage, 20(2), pp. 870-888.

Andrew, T., Hart, D. J., Snieder, H., de Lange, M., Spector, T. D. & MacGregor, A. J. (2001) 'Are twins and singletons comparable? A study of disease-related and lifestyle characteristics in adult women', Twin Res, 4(6), pp. 464-477.

Anokhin, A. P., Golosheykin, S., Grant, J. D. & Heath, A. C. (2011) 'Heritability of delay discounting in adolescence: a longitudinal twin study', Behav Genet, 41(2), pp. 175-183.

Apps, M. A., Rushworth, M. F. & Chang, S. W. (2016) 'The Anterior Cingulate Gyrus and Social Cognition: Tracking the Motivation of Others', Neuron, 90(4), pp. 692-707.

Audrain-McGovern, J., Rodriguez, D., Epstein, L. H., Cuevas, J., Rodgers, K. & Wileyto, E. P. (2009) 'Does delay discounting play an etiological role in smoking or is it a consequence of smoking?', Drug Alcohol Depend, 103(3), pp. 99-106.

B

Bakermans-Kranenburg, M. J. & van Ijzendoorn, M. H. (2007) 'Research Review: genetic vulnerability or differential susceptibility in child development: the case of attachment', J Child Psychol Psychiatry, 48(12), pp. 1160-1173.

Bakermans-Kranenburg, M. J., Van, I. M. H., Pijlman, F. T., Mesman, J. & Juffer, F. (2008) 'Experimental evidence for differential susceptibility: dopamine D4 receptor polymorphism (DRD4 VNTR) moderates intervention effects on toddlers' externalizing behavior in a randomized controlled trial', Dev Psychol, 44(1), pp. 293-300.

Ball, T., Rahm, B., Eickhoff, S. B., Schulze-Bonhage, A., Speck, O. & Mutschler, I. (2007) 'Response Properties of Human Amygdala Subregions: Evidence Based on Functional MRI Combined with Probabilistic Anatomical Maps', PLoS One, 2(3).

Barch, D., Pagliaccio, D., Belden, A., Harms, M. P., Gaffrey, M., Sylvester, C. M., Tillman, R. & Luby, J. (2016) 'Effect of Hippocampal and Amygdala Connectivity on the Relationship Between Preschool Poverty and School-Age Depression', American Journal of Psychiatry, 173(6), pp. 625-634.

Barnes, K. A., Cohen, A. L., Power, J. D., Nelson, S. M., Dosenbach, Y. B., Miezin, F. M., Petersen, S. E. & Schlaggar, B. L. (2010) 'Identifying Basal Ganglia divisions in individuals using resting-state functional connectivity MRI', Front Syst Neurosci, 4, p. 18.

Basser, P. J. & Pierpaoli, C. (1996) 'Microstructural and physiological features of tissues elucidated by quantitative-diffusion-tensor MRI', J Magn Reson B, 111(3), pp. 209-219.

Bates, D., Machler, M., Bolker, B. M. & Walker, S. C. (2015) 'Fitting Linear Mixed-Effects Models Using lme4', Journal of Statistical Software, 67(1), pp. 1-48.

Baumeister, R. F. & Leary, M. R. (1995) 'The need to belong: desire for interpersonal attachments as a fundamental human motivation', Psychol Bull, 117(3), pp. 497-529.

Bava, S., Boucquey, V., Goldenberg, D., Thayer, R. E., Ward, M., Jacobus, J. & Tapert, S. F. (2011) 'Sex differences in adolescent white matter architecture', Brain Res, 1375, pp. 41-48.

Bava, S., Thayer, R., Jacobus, J., Ward, M., Jernigan, T. L. & Tapert, S. F. (2010) 'Longitudinal characterization of white matter maturation during adolescence', Brain Res, 1327, pp. 38-46.

Berndt, T. J. (2004) 'Children's friendships: Shifts over a half-century in perspectives on their development and their effects', Merrill-Palmer Quarterly-Journal of Developmental Psychology, 50(3), pp. 206-223.

Bickel, W. K., Pitcock, J. A., Yi, R. & Angtuaco, E. J. (2009) 'Congruence of BOLD response across intertemporal choice conditions: fictive and real money gains and losses', J Neurosci, 29(27), pp. 8839-8846.

Birn, R. M., Diamond, J. B., Smith, M. A. & Bandettini, P. A. (2006) 'Separating respiratory-variation-related neuronal-activity-related fluctuations in fluctuations from fMRI', Neuroimage, 31(4), pp. 1536-1548.

Blackwell, D., Leaman, C., Tramposch, R., Osborne, C. & Liss, M. (2017) 'Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction', Pers Individ Dif, 116, pp. 69-72.

Blakemore, S. J. (2008) 'The social brain in adolescence', Nat Rev Neurosci, 9(4), pp. 267-277.

Blokland, G. A., McMahon, K. L., Thompson, P. M., Martin, N. G., de Zubicaray, G. I. & Wright, M. J. (2011) 'Heritability of working memory brain activation', J Neurosci, 31(30), pp. 10882-10890.

Boecker, R., Holz, N. E., Buchmann, A. F., Blomeyer, D., Plichta, M. M., Wolf, I., Baumeister, S., Meyer-Lindenberg, A., Banaschewski, T., Brandeis, D. & Laucht, M. (2014) 'Impact of early life adversity on reward processing in young adults: EEG-fMRI results from a prospective study over 25 years', PLoS One, 9(8), p. e104185.

Borenstein, M., Rothstein, D. & Cohen, J. (2005) Comprehensive meta-analysis: A computer program for research synthesis, NJ: Biostat.

Bos, M. G. N., Wierenga, L. M., Blankenstein, N. E., Schreuders, E., Tamnes, C. K. & Crone, E. A. (2018) 'Longitudinal structural brain development and externalizing behavior in adolescence', J Child Psychol Psychiatry, 59(10), pp. 1061-1072.

Bouchard, T. J., Jr. & McGue, M. (2003) 'Genetic and environmental influences on human psychological differences', J Neurobiol, 54(1), pp. 4-45.

Braams, B. R., Guroglu, B., de Water, E., Meuwese, R., Koolschijn, P. C., Peper, J. S. & Crone, E. A. (2014a) 'Reward-related neural responses are dependent on the beneficiary', Soc Cogn Affect Neurosci, 9(7), pp. 1030-1037.

Braams, B. R., Peters, S., Peper, J. S., Guroglu, B. & Crone, E. A. (2014b) 'Gambling for self, friends, and antagonists: differential contributions of affective and social brain regions on adolescent reward processing', Neuroimage, 100, pp. 281-289.

Braams, B. R., van Duijvenvoorde, A. C., 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', J Neurosci, 35(18), pp. 7226-7238.

Branje, S. J. T., van Lieshout, C. F. M., van Aken, M. A. G. & Haselager, G. J. T. (2004) 'Perceived support in sibling relationships and adolescent adjustment', Journal of Child Psychology and Psychiatry, 45(8), pp. 1385-1396.

Brett, M., Anton, J. L., Valabregue, R. & Poline, J. B. (2002) 'Region of interest analysis using an SPM toolbox [abstract] Presented at the 8th International Conference on Functional Mapping of the Human Brain, June 2-6', Available on CD-ROM in NeuroImage, 16(2).

Brothers, L. (1990) 'The social brain: a project for integrating primate behavior and neurophysiology in a new domain. ', Concepts Neurosci., 1,, pp. 27–51.

Buckner, R. L., Krienen, F. M., Castellanos, A., Diaz, J. C. & Yeo, B. T. (2011) 'The organization of the human cerebellum estimated by intrinsic functional connectivity', J Neurophysiol, 106(5), pp. 2322-2345.

Bunge, S. A. & Zelazo, P. D. (2006) 'A brain-based account of the development of rule use in childhood', Current Directions in Psychological Science, 15(3), pp. 118-121.

Bushman, B. J. (2002) 'Does venting anger feed or extinguish the flame? Catharsis, rumination, distraction, anger, and aggressive responding', Personality and Social Psychology Bulletin, 28(6), pp. 724-731.

Bushman, B. J. & Baumeister, R. F. (1998) 'Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: does self-love or self-hate lead to violence?', J Pers Soc Psychol, 75(1), pp. 219-229.

Button, K. S., Ioannidis, J. P., Mokrysz, C., Nosek, B. A., Flint, J., Robinson, E. S. & Munafo, M. R. (2013) 'Power failure: why small sample size undermines the reliability of neuroscience', Nat Rev Neurosci, 14(5), pp. 365-376.

C

Caballero-Gaudes, C. & Reynolds, R. C. (2017) 'Methods for cleaning the BOLD fMRI signal', Neuroimage, 154, pp. 128-149.

Cacioppo, S., Frum, C., Asp, E., Weiss, R. M., Lewis, J. W. & Cacioppo, J. T. (2013) 'A Quantitative Meta-Analysis of Functional Imaging Studies of Social Rejection', Sci Rep, 3.

Casement, M. D., Guyer, A. E., Hipwell, A. E., McAloon, R. L., Hoffmann, A. M., Keenan, K. E. & Forbes, E. E. (2014) 'Girls' challenging social experiences in early adolescence predict neural response to rewards and depressive symptoms', Dev Cogn Neurosci, 8, pp. 18-27.

Casey, B. J. (2015) 'Beyond Simple Models of Self-Control to Circuit-Based Accounts of Adolescent Behavior', Annual Review of Psychology, Vol 66, 66, pp. 295-319.

Casey, B. J., Jones, R. M. & Hare, T. A. (2008) 'The adolescent brain', Ann N Y Acad Sci, 1124, pp. 111-126.

Casey, B. J., Somerville, L. H., Gotlib, I. H., Ayduk, O., Franklin, N. T., Askren, M. K., Jonides, J., Berman, M. G., Wilson, N. L., Teslovich, T., Glover, G., Zayas, V., Mischel, W. & Shoda, Y. (2011) 'Behavioral and neural correlates of delay of gratification 40 years later', Proc Natl Acad Sci U S A, 108(36), pp. 14998-15003.

Centeno, M., Tierney, T. M., Perani, S., Shamshiri, E. A., StPier, K., Wilkinson, C., Konn, D., Banks, T., Vulliemoz, S., Lemieux, L., Pressler, R. M., Clark, C. A., Cross, J. H. & Carmichael, D. W. (2016) 'Optimising EEG-fMRI for Localisation of Focal Epilepsy in Children', PLoS One, 11(2), p. e0149048.

Chai, X. Q. J., Ofen, N., Gabrieli, J. D. E. & Whitfield-Gabrieli, S. (2014) 'Selective Development of Anticorrelated Networks in the Intrinsic Functional Organization of the Human Brain', J Cogn Neurosci, 26(3), pp. 501-513.

Chang, L. C., Jones, D. K. & Pierpaoli, C. (2005) 'RESTORE: robust estimation of tensors by outlier rejection', Magn Reson Med, 53(5), pp. 1088-1095.

Chang, L. C., Walker, L. & Pierpaoli, C. (2012) 'Informed RESTORE: A method for robust estimation of diffusion tensor from low redundancy datasets in the presence of physiological noise artifacts', Magn Reson Med, 68(5), pp. 1654-1663.

Cheng, T. W., Vijayakumar, N., Flournoy, J. C., Op de Macks, Z., Peake, S. J., Flannery, J. E., Mobasser, A., Alberti, S. L., Fisher, P. A. & Pfeifer, J. H. (2019) 'Feeling left out or just surprised? Neural correlates of social exclusion and over-inclusion in adolescence', bioRxiv, p. 524934.

Chester, D. S. & DeWall, C. N. (2016) 'The pleasure of revenge: retaliatory aggression arises from a neural imbalance toward reward', Soc Cogn Affect Neurosci, 11(7), pp. 1173-1182.

Chester, D. S., Eisenberger, N. I., Pond, R. S., Jr., Richman, S. B., Bushman, B. J. & Dewall, C. N. (2014) 'The interactive effect of social pain and executive functioning on aggression: an fMRI experiment', Soc Cogn Affect Neurosci, 9(5), pp. 699-704.

Choi, E. Y., Yeo, B. T. T. & Buckner, R. L. (2012) 'The organization of the human striatum estimated by intrinsic functional connectivity', J Neurophysiol, 108(8), pp. 2242-2263.

Christakou, C., Economou, F., Livadas, S., Piperi, C., Adamopoulos, C., Marinakis, E. & Jdiamanti-Kandarakis, E. (2011) 'Strong and positive association of endothelin-1 with AGEs in PCOS: a causal relationship or a bystander?', Hormones (Athens), 10(4), pp. 292-297.

Cicchetti, D. V. (1994) 'Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology', Psychological Assessment, 6(4), pp. 284-290.

Colclough, G. L., Smith, S. M., Nichols, T. E., Winkler, A. M., Sotiropoulos, S. N., Glasser, M. F., Van Essen, D. C. & Woolrich, M. W. (2017) 'The heritability of multi-modal connectivity in human brain activity', Elife, 6.

Common Sense Media Incorporation (2015) The common sense census: Media use by tweens and teens.

Couvy-Duchesne, B., Blokland, G. A., Hickie, I. B., Thompson, P. M., Martin, N. G., de Zubicaray, G. I., McMahon, K. L. & Wright, M. J. (2014) 'Heritability of head motion during resting state functional MRI in 462 healthy twins', Neuroimage, 102 Pt 2, pp. 424-434.

Critchfield, T. S. & Kollins, S. H. (2001) 'Temporal discounting: basic research and the analysis of socially important behavior', J Appl Behav Anal, 34(1), pp. 101-122.

Crone, E. A. & Elzinga, B. M. (2015) 'Changing brains: how longitudinal functional magnetic resonance imaging studies can inform us about cognitive and social-affective growth trajectories', Wiley Interdiscip Rev Cogn Sci, 6(1), pp. 53-63.

Crone, E. A. & Konijn, E. A. (2018) 'Media use and brain development during adolescence', Nat Commun, 9(1), p. 588.

Crone, E. A. & Steinbeis, N. (2017) 'Neural Perspectives on Cognitive Control Development during Childhood and Adolescence', Trends Cogn Sci, 21(3), pp. 205-215.

D

Dale, A. M. (1999) 'Optimal experimental design for event-related fMRI', Hum Brain Mapp, 8(2-3), pp. 109-114.

Dale, A. M., Fischl, B. & Sereno, M. I. (1999) 'Cortical surface-based analysis. I. Segmentation and surface reconstruction', Neuroimage, 9(2), pp. 179-194.

Dalgleish, T., Walsh, N. D., Mobbs, D., Schweizer, S., van Harmelen, A. L., Dunn, B., Dunn, V., Goodyer, I. & Stretton, J. (2017) 'Social pain and social gain in the adolescent brain: A common neural circuitry underlying both positive and negative social evaluation', Sci Rep, 7, p. 42010.

Damoiseaux, J. S., Rombouts, S. A., Barkhof, F., Scheltens, P., Stam, C. J., Smith, S. M. & Beckmann, C. F. (2006) 'Consistent resting-state networks across healthy subjects', Proc Natl Acad Sci U S A, 103(37), pp. 13848-13853.

Davey, C. G., Allen, N. B., Harrison, B. J., Dwyer, D. B. & Yucel, M. (2010) 'Being liked activates primary reward and midline self-related brain regions', Hum Brain Mapp, 31(4), pp. 660-668.

de Water, E., Cillessen, A. H. & Scheres, A. (2014) 'Distinct age-related differences in temporal discounting and risk taking in adolescents and young adults', Child Dev, 85(5), pp. 1881-1897.

Deadwyler, S. A., Hayashizaki, S., Cheer, J. & Hampson, R. E. (2004) 'Reward, memory and substance abuse: functional neuronal circuits in the nucleus accumbens', Neurosci Biobehav Rev, 27(8), pp. 703-711.

Demetriou, L., Kowalczyk, O. S., Tyson, G., Bello, T., Newbould, R. D. & Wall, M. B. (2018) 'A comprehensive evaluation of increasing temporal resolution with multiband-accelerated protocols and effects on statistical outcome measures in fMRI', Neuroimage, 176, pp. 404-416.

Desikan, R. S., Segonne, F., Fischl, B., Quinn, B. T., Dickerson, B. C., Blacker, D., Buckner, R. L., Dale, A. M., Maguire, R. P., Hyman, B. T., Albert, M. S. & Killiany, R. J. (2006) 'An automated labeling system for subdividing the human cerebral cortex on MRI scans into gyral based regions of interest', Neuroimage, 31(3), pp. 968-980.

DeWall, C. N. & Bushman, B. J. (2011) 'Social Acceptance and Rejection: The Sweet and the Bitter', Current Directions in Psychological Science, 20(4), pp. 256-260.

DeWall, C. N., Deckman, T., Pond, R. S., Jr. & Bonser, I. (2011) 'Belongingness as a core personality trait: how social exclusion influences social functioning and personality expression', J Pers, 79(6), pp. 1281-1314.

Di Martino, A., Scheres, A., Margulies, D. S., Kelly, A. M., Uddin, L. Q., Shehzad, Z., Biswal, B., Walters, J. R., Castellanos, F. X. & Milham, M. P. (2008) 'Functional connectivity of human striatum: a resting state FMRI study', Cereb Cortex, 18(12), pp. 2735-2747.

Diamond, A. (2013) 'Executive functions', Annu Rev Psychol, 64, pp. 135-168.

Dodge, K. A., Lansford, J. E., Burks, V. S., Bates, J. E., Pettit, G. S., Fontaine, R. & Price, J. M. (2003) 'Peer rejection and social information-processing factors in the development of aggressive behavior problems in children', Child Dev, 74(2), pp. 374-393.

Dosenbach, N. U. F., Koller, J. M., Earl, E. A., Miranda-Dominguez, O., Klein, R. L., Van, A. N., Snyder, A. Z., Nagel, B. J., Nigg, J. T., Nguyen, A. L., Wesevich, V., Greene, D. J. & Fair, D. A. (2017) 'Real-time motion analytics during brain MRI improve data quality and reduce costs', Neuroimage, 161, pp. 80-93.

Du, W. J., Green, L. & Myerson, J. (2002) 'Cross-cultural comparisons of discounting delayed and probabilistic rewards', Psychological Record, 52(4), pp. 479-492.

Dubois, J. & Adolphs, R. (2016) 'Building a Science of Individual Differences from fMRI', Trends Cogn Sci, 20(6), pp. 425-443.

Durston, S., Nederveen, H., van Dijk, S., van Belle, J., de Zeeuw, P., Langen, M. & van Dijk, A. (2009) 'Magnetic resonance simulation is effective in reducing anxiety related to magnetic resonance scanning in children', J Am Acad Child Adolesc Psychiatry, 48(2), pp. 206-207.

E

Eickhoff, S. B., Bzdok, D., Laird, A. R., Kurth, F. & Fox, P. T. (2012) 'Activation likelihood estimation meta-analysis revisited', Neuroimage, 59(3), pp. 2349-2361.

Eickhoff, S. B., Laird, A. R., Grefkes, C., Wang, L. E., Zilles, K. & Fox, P. T. (2009) 'Coordinate-based activation likelihood estimation meta-analysis of neuroimaging data: a random-effects approach based on empirical estimates of spatial uncertainty', Hum Brain Mapp, 30(9), pp. 2907-2926.

Eigsti, I. M., Zayas, V., Mischel, W., Shoda, Y., Ayduk, O., Dadlani, M. B., Davidson, M. C., Lawrence Aber, J. & Casey, B. J. (2006) 'Predicting cognitive control from preschool to late adolescence and young adulthood', Psychol Sci, 17(6), pp. 478-484.

Eisenberger, N. I. & Lieberman, M. D. (2004) 'Why rejection hurts: a common neural alarm system for physical and social pain', Trends Cogn Sci, 8(7), pp. 294-300.

Eisenberger, N. I., Lieberman, M. D. & Williams, K. D. (2003) 'Does rejection hurt? An FMRI study of social exclusion', Science, 302(5643), pp. 290-292.

Ekhtiari, H., Kuplicki, R., Yeh, H. W. & Paulus, M. P. (2019) 'Physical characteristics not psychological state or trait characteristics predict motion during resting state fMRI', Sci Rep, 9.

Eklund, A., Nichols, T. E. & Knutsson, H. (2016) 'Cluster failure: Why fMRI inferences for spatial extent have inflated false-positive rates', Proc Natl Acad Sci U S A, 113(28), pp. 7900-7905.

Elliott, M. L., Knodt, A. R., Cooke, M., Kim, M. J., Melzer, T. R., Keenan, R., Ireland, D., Ramrakha, S., Poulton, R., Caspi, A., Moffitt, T. E. & Hariri, A. R. (2019a) 'General functional connectivity: Shared features of resting-state and task fMRI drive reliable and heritable individual differences in functional brain networks', Neuroimage, 189, pp. 516-532.

Elliott, M. L., Knodt, A. R., Ireland, D., Morris, M. L., Poulton, R., Ramrakha, S., Sison, M. L., Moffitt, T. E., Caspi, A. & Hariri, A. R. (2019b) 'Poor test-retest reliability of task-fMRI: New empirical evidence and a meta-analysis', bioRxiv.

Ellis, B. J., Boyce, W. T., Belsky, J., Bakermans-Kranenburg, M. J. & van Ijzendoorn, M. H. (2011) 'Differential susceptibility to the environment: An evolutionary-neurodevelopmental theory', Dev Psychopathol, 23(1), pp. 7-28.

Engelhardt, L. E., Roe, M. A., Juranek, J., DeMaster, D., Harden, K. P., Tucker-Drob, E. M. & Church, J. A. (2017) 'Children's head motion during fMRI tasks is heritable and stable over time', Dev Cogn Neurosci, 25, pp. 58-68.

Ernst, M. (2014) 'The triadic model perspective for the study of adolescent motivated behavior', Brain Cogn, 89, pp. 104-111.

Euser, S., Bakermans-Kranenburg, M. J., van den Bulk, B. G., Linting, M., Damsteegt, R. C., Vrijhof, C. I., van Wijk, I. C., Crone, E. A. & van, I. M. H. (2016) 'Efficacy of the Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline in Twin Families (VIPP-Twins): Study protocol for a randomized controlled trial', BMC Psychol, 4(1), p. 33.

Evans, S. C., Fite, P. J., Hendrickson, M. L., Rubens, S. L. & Mages, A. K. (2015) 'The Role of Reactive Aggression in the Link Between Hyperactive-Impulsive Behaviors and Peer Rejection in Adolescents', Child Psychiatry Hum Dev.

F

Fair, D. A., Cohen, A. L., Power, J. D., Dosenbach, N. U., Church, J. A., Miezin, F. M., Schlaggar, B. L. & Petersen, S. E. (2009) 'Functional brain networks develop from a "local to distributed" organization', PLoS Comput Biol, 5(5), p. e1000381.

Fareri, D. S., Gabard-Durnam, L., Goff, B., Flannery, J., Gee, D. G., Lumian, D. S., Caldera, C. & Tottenham, N. (2015) 'Normative development of ventral striatal resting state connectivity in humans', Neuroimage, 118, pp. 422-437.

Fassbender, C., Mukherjee, P. & Schweitzer, J. B. (2017a) 'Minimizing noise in pediatric task-based functional MRI; Adolescents with developmental disabilities and typical development', Neuroimage, 149, pp. 338-347.

Fassbender, C., Mukherjee, P. & Schweitzer, J. B. (2017b) 'Reprint of: Minimizing noise in pediatric task-based functional MRI; Adolescents with developmental disabilities and typical development', Neuroimage, 154, pp. 230-239.

Feinberg, D. A. & Yacoub, E. (2012) 'The rapid development of high speed, resolution and precision in fMRI', Neuroimage, 62(2), pp. 720-725.

Ferguson, C. J. (2010) 'Genetic Contributions to Antisocial Personality and Behavior: A Meta-Analytic Review From an Evolutionary Perspective', Journal of Social Psychology, 150(2), pp. 160-180.

Figner, B., Knoch, D., Johnson, E. J., Krosch, A. R., Lisanby, S. H., Fehr, E. & Weber, E. U. (2010) 'Lateral prefrontal cortex and self-control in intertemporal choice', Nat Neurosci, 13(5), pp. 538-539.

Fischl, B., Sereno, M. I. & Dale, A. M. (1999) 'Cortical surface-based analysis. II: Inflation, flattening, and a surface-based coordinate system', Neuroimage, 9(2), pp. 195-207.

Flagan, T. & Beer, J. S. (2013) 'Three ways in which midline regions contribute to self-evaluation', Front Hum Neurosci, 7, p. 450.

Flint, J. & Kendler, K. S. (2014) 'The Genetics of Major Depression', Neuron, 81(3), pp. 484-503.

Fox, M. D. & Raichle, M. E. (2007) 'Spontaneous fluctuations in brain activity observed with functional magnetic resonance imaging', Nature Reviews Neuroscience, 8(9), pp. 700-711.

Franco, A., Malhotra, N. & Simonovits, G. (2014) 'Publication bias in the social sciences: Unlocking the file drawer', Science, 345(6203), pp. 1502-1505.

Frohner, J. H., Teckentrup, V., Smolka, M. N. & Kroemer, N. B. (2019) 'Addressing the reliability fallacy in fMRI: Similar group effects may arise from unreliable individual effects', Neuroimage, 195, pp. 174-189.

Fulwiler, C. E., King, J. A. & Zhang, N. (2012) 'Amygdala-orbitofrontal resting-state functional connectivity is associated with trait anger', Neuroreport, 23(10), pp. 606-610.

G

Gabard-Durnam, L. J., Flannery, J., Goff, B., Gee, D. G., Humphreys, K. L., Telzer, E., Hare, T. & Tottenham, N. (2014) 'The development of human amygdala functional connectivity at rest from 4 to 23 years: A cross-sectional study', Neuroimage, 95, pp. 193-207.

Gabrieli, J. D. E., Ghosh, S. S. & Whitfield-Gabrieli, S. (2015) 'Prediction as a Humanitarian and Pragmatic Contribution from Human Cognitive Neuroscience', Neuron, 85(1), pp. 11-26.

Gallagher, H. L. & Frith, C. D. (2003) 'Functional imaging of 'theory of mind'', Trends Cogn Sci, 7(2), pp. 77-83.

Galvan, A. (2010) 'Adolescent development of the reward system', Front Hum Neurosci, 4, p. 6.

Galvan, A., Van Leijenhorst, L. & McGlennen, K. M. (2012) 'Considerations for imaging the adolescent brain', Dev Cogn Neurosci, 2(3), pp. 293-302.

Garrett, A. S., Carrion, V., Kletter, H., Karchemskiy, A., Weems, C. F. & Reiss, A. (2012) 'Brain activation to facial expressions in youth with PTSD symptoms', Depress Anxiety, 29(5), pp. 449-459.

Ge, T., Holmes, A. J., Buckner, R. L., Smoller, J. W. & Sabuncu, M. R. (2017) 'Heritability analysis with repeat measurements and its application to resting-state functional connectivity', Proc Natl Acad Sci U S A, 114(21), pp. 5521-5526.

Gee, D. G., Gabard-Durnam, L., Telzer, E. H., Humphreys, K. L., Goff, B., Shapiro, M., Flannery, J., Lumian, D. S., Fareri, D. S., Caldera, C. & Tottenham, N. (2014) 'Maternal Buffering of Human Amygdala-Prefrontal Circuitry During Childhood but Not During Adolescence', Psychol Sci, 25(11), pp. 2067-2078.

Giglietto, F., Rossi, L. & Bennato, D. (2012) 'The Open Laboratory: Limits and Possibilities of Using Facebook, Twitter, and YouTube as a Research Data Source', Journal of Technology in Human Services, 30(3-4), pp. 145-159.

Gilmore, J. H., Knickmeyer, R. C. & Gao, W. (2018) 'Imaging structural and functional brain development in early childhood', Nat Rev Neurosci, 19(3), pp. 123-137.

Glahn, D. C., Winkler, A. M., Kochunov, P., Almasy, L., Duggirala, R., Carless, M. A., Curran, J. C., Olvera, R. L., Laird, A. R., Smith, S. M., Beckmann, C. F., Fox, P. T. & Blangero, J. (2010) 'Genetic control over the resting brain', Proc Natl Acad Sci U S A, 107(3), pp. 1223-1228.

Glover, G. H. (2011) 'Overview of functional magnetic resonance imaging', Neurosurg Clin N Am, 22(2), pp. 133-139, vii.

Goff, B., Gee, D. G., Telzer, E. H., Humphreys, K. L., Gabard-Durnam, L., Flannery, J. & Tottenham, N. (2013) 'Reduced nucleus accumbens reactivity and adolescent depression following early-life stress', Neuroscience, 249, pp. 129-138.

Gogtay, N., Giedd, J. N., Lusk, L., Hayashi, K. M., Greenstein, D., Vaituzis, A. C., Nugent, T. F., Herman, D. H., Clasen, L. S., Toga, A. W., Rapoport, J. L. & Thompson, P. M. (2004) 'Dynamic mapping of human cortical development during childhood through early adulthood', Proc Natl Acad Sci U S A, 101(21), pp. 8174-8179.

Green, L., Fristoe, N. & Myerson, J. (1994) 'Temporal discounting and preference reversals in choice between delayed outcomes', Psychon Bull Rev, 1(3), pp. 383-389.

Greene, A. S., Gao, S., Scheinost, D. & Constable, R. T. (2018a) 'Task-induced brain state manipulation improves prediction of individual traits', Nat Commun, 9(1), p. 2807.

Greene, D. J., Koller, J. M., Hampton, J. M., Wesevich, V., Van, A. N., Nguyen, A. L., Hoyt, C. R., McIntyre, L., Earl, E. A., Klein, R. L., Shimony, J. S., Petersen, S. E., Schlaggar, B. L., Fair, D. A. & Dosenbach, N. U. F. (2018b) 'Behavioral interventions for reducing head motion during MRI scans in children', Neuroimage, 171, pp. 234-245.

Greve, D. N. & Fischl, B. (2009) 'Accurate and robust brain image alignment using boundary-based registration', Neuroimage, 48(1), pp. 63-72.

Gunther Moor, B., Bos, M. G., Crone, E. A. & van der Molen, M. W. (2014) 'Peer rejection cues induce cardiac slowing after transition into adolescence', Dev Psychol, 50(3), pp. 947-955.

Gunther Moor, B., Crone, E. A. & van der Molen, M. W. (2010a) 'The heartbrake of social rejection: heart rate deceleration in response to unexpected peer rejection', Psychol Sci, 21(9), pp. 1326-1333.

Gunther Moor, B., van Leijenhorst, L., Rombouts, S. A., Crone, E. A. & Van der Molen, M. W. (2010b) 'Do you like me? Neural correlates of social evaluation and developmental trajectories', Soc Neurosci, 5(5-6), pp. 461-482.

Guroglu, B., van den Bos, W. & Crone, E. A. (2014) 'Sharing and giving across adolescence: an experimental study examining the development of prosocial behavior', Front Psychol, 5.

Guroglu, B., van den Bos, W., Rombouts, S. A. & Crone, E. A. (2010) 'Unfair? It depends: neural correlates of fairness in social context', Soc Cogn Affect Neurosci, 5(4), pp. 414-423.

Guyer, A. E., Caouette, J. D., Lee, C. C. & Ruiz, S. K. (2014) 'Will they like me? Adolescents' emotional responses to peer evaluation', Int J Behav Dev, 38(2), pp. 155-163.

Guyer, A. E., Choate, V. R., Pine, D. S. & Nelson, E. E. (2012) 'Neural circuitry underlying affective response to peer feedback in adolescence', Soc Cogn Affect Neurosci, 7(1), pp. 81-92.

Guyer, A. E., Lau, J. Y., McClure-Tone, E. B., Parrish, J., Shiffrin, N. D., Reynolds, R. C., Chen, G., Blair, R. J., Leibenluft, E., Fox, N. A., Ernst, M., Pine, D. S. & Nelson, E. E. (2008) 'Amygdala and ventrolateral prefrontal cortex function during anticipated peer evaluation in pediatric social anxiety', Arch Gen Psychiatry, 65(11), pp. 1303-1312.

Guyer, A. E., McClure-Tone, E. B., Shiffrin, N. D., Pine, D. S. & Nelson, E. E. (2009) 'Probing the neural correlates of anticipated peer evaluation in adolescence', Child Dev, 80(4), pp. 1000-1015.

Guyer, A. E., Silk, J. S. & Nelson, E. E. (2016) 'The neurobiology of the emotional adolescent: From the inside out', Neurosci Biobehav Rev, 70, pp. 74-85.

H

Haber, S. N. & Knutson, B. (2010) 'The Reward Circuit: Linking Primate Anatomy and Human Imaging', Neuropsychopharmacology, 35(1), pp. 4-26.

Hallowell, L. M., Stewart, S. E., de Amorim, E. S. C. T. & Ditchfield, M. R. (2008) 'Reviewing the process of preparing children for MRI', Pediatr Radiol, 38(3), pp. 271-279.

Hanson, J. L., Albert, D., Iselin, A. M. R., Carre, J. M., Dodge, K. A. & Hariri, A. R. (2016) 'Cumulative stress in childhood is associated with blunted reward-related brain activity in adulthood', Soc Cogn Affect Neurosci, 11(3), pp. 405-412.

Hayes, A. F. & Cai, L. (2007) 'Using heteroskedasticity-consistent standard error estimators in OLS regression: an introduction and software implementation', Behav Res Methods, 39(4), pp. 709-722.

Heller, R., Stanley, D., Yekutieli, D., Rubin, N. & Benjamini, Y. (2006) 'Cluster-based analysis of FMRI data', Neuroimage, 33(2), pp. 599-608.

Herting, M. M., Gautam, P., Chen, Z., Mezher, A. & Vetter, N. C. (2018) 'Test-retest reliability of longitudinal task-based fMRI: Implications for developmental studies', Dev Cogn Neurosci, 33, pp. 17-26.

Hughes, B. L. & Beer, J. S. (2013) 'Protecting the self: the effect of social-evaluative threat on neural representations of self', J Cogn Neurosci, 25(4), pp. 613-622.

Huijbers, W., Van Dijk, K. R. A., Boenniger, M. M., Stirnberg, R. & Breteler, M. M. B. (2017) 'Less head motion during MRI under task than resting-state conditions', Neuroimage, 147, pp. 111-120.

Hyman, S. E. (2000) 'The genetics of mental illness: implications for practice', Bull World Health Organ, 78(4), pp. 455-463.

I

Ioannidis, J. P. A. (2005) 'Why most published research findings are false', Plos Medicine, 2(8), pp. 696-701.

J

Jalbrzikowski, M., Larsen, B., Hallquist, M. N., Foran, W., Calabro, F. & Luna, B. (2017) 'Development of White Matter Microstructure and Intrinsic Functional Connectivity Between the Amygdala and Ventromedial Prefrontal Cortex: Associations With Anxiety and Depression', Biol Psychiatry.

Jansen, A. G., Mous, S. E., White, T., Posthuma, D. & Polderman, T. J. (2015) 'What twin studies tell us about the heritability of brain development, morphology, and function: a review', Neuropsychol Rev, 25(1), pp. 27-46.

Jarcho, J. M., Fox, N. A., Pine, D. S., Etkin, A., Leibenluft, E., Shechner, T. & Ernst, M. (2013) 'The neural correlates of emotion-based cognitive control in adults with early childhood behavioral inhibition', Biol Psychol, 92(2), pp. 306-314.

Jenkinson, M., Bannister, P., Brady, M. & Smith, S. (2002) 'Improved optimization for the robust and accurate linear registration and motion correction of brain images', Neuroimage, 17(2), pp. 825-841.

Jenkinson, M. & Smith, S. (2001) 'A global optimisation method for robust affine registration of brain images', Med Image Anal, 5(2), pp. 143-156.

Jolles, D. D., van Buchem, M. A., Crone, E. A. & Rombouts, S. A. (2011) 'A comprehensive study of whole-brain functional connectivity in children and young adults', Cereb Cortex, 21(2), pp. 385-391.

Jones, D. K. (2008) 'Studying connections in the living human brain with diffusion MRI', Cortex, 44(8), pp. 936-952.

Juffer, F. & Bakermans-Kranenburg, M. J. (2018) 'Working with Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD): A case study', Journal of Clinical Psychology, 74(8), pp. 1346-1357.

Juffer, F., Bakermans-Kranenburg, M. J. & van IJzendoorn, M. H. (2017a) 'Pairing attachment theory and social learning theory in video-feedback intervention to promote positive parenting', Current Opinion in Psychology, 15, pp. 189-194.

Juffer, F., Bakermans-Kranenburg, M. J. & van Ijzendoorn, M. H. (2017b) 'Video Feedback Intervention to Promote Positive Parenting and Sensitive Discipline (VIPP-SD): Development and meta-analytic evidence of its effectiveness. ', in H. Steele & M. Steele (eds), Handbook of attachment-based interventions, New York, Guilford Publications.

K

Klapwijk, E. T., van de Kamp, F., van der Meulen, M., Peters, S. & Wierenga, L. M. (2019) 'Qoala-T: A supervised-learning tool for quality control of FreeSurfer segmented MRI data', Neuroimage, 189, pp. 116-129.

Kong, X. Z., Zhen, Z., Li, X., Lu, H. H., Wang, R., Liu, L., He, Y., Zang, Y. & Liu, J. (2014) 'Individual differences in impulsivity predict head motion during magnetic resonance imaging', PLoS One, 9(8), p. e104989.

Konijn, E. A., Bijvank, M. N. & Bushman, B. J. (2007) 'I wish I were a warrior: the role of wishful identification in the effects of violent video games on aggression in adolescent boys', Dev Psychol, 43(4), pp. 1038-1044.

Kotsoni, E., Byrd, D. & Casey, B. J. (2006) 'Special considerations for functional magnetic resonance imaging of pediatric populations', J Magn Reson Imaging, 23(6), pp. 877-886.

Kross, E., Berman, M. G., Mischel, W., Smith, E. E. & Wager, T. D. (2011) 'Social rejection shares somatosensory representations with physical pain', Proc Natl Acad Sci U S A, 108(15), pp. 6270-6275.

L

Lansford, J. E., Malone, P. S., Dodge, K. A., Pettit, G. S. & Bates, J. E. (2010) 'Developmental cascades of peer rejection, social information processing biases, and aggression during middle childhood', Dev Psychopathol, 22(3), pp. 593-602.

Leary, M. R. & Baumeister, R. F. (2000) 'The nature and function of self-esteem: Sociometer theory', Advances in Experimental Social Psychology, Vol 32, 32, pp. 1-62.

Leary, M. R., Kowalski, R. M., Smith, L. & Phillips, S. (2003) 'Teasing, rejection, and violence: Case studies of the school shootings', Aggressive Behavior, 29(3), pp. 202-214.

Leary, M. R., Twenge, J. M. & Quinlivan, E. (2006) 'Interpersonal rejection as a determinant of anger and aggression', Pers Soc Psychol Rev, 10(2), pp. 111-132.

Lebel, C. & Beaulieu, C. (2011) 'Longitudinal development of human brain wiring continues from childhood into adulthood', J Neurosci, 31(30), pp. 10937-10947.

Lee, D. & Seo, H. (2016) 'Neural Basis of Strategic Decision Making', Trends Neurosci, 39(1), pp. 40-48.

Lenroot, R. K. & Giedd, J. N. (2006) 'Brain development in children and adolescents: insights from anatomical magnetic resonance imaging', Neurosci Biobehav Rev, 30(6), pp. 718-729.

Lenroot, R. K. & Giedd, J. N. (2011) 'Annual Research Review: Developmental considerations of gene by environment interactions', J Child Psychol Psychiatry, 52(4), pp. 429-441.

Lenroot, R. K., Schmitt, J. E., Ordaz, S. J., Wallace, G. L., Neale, M. C., Lerch, J. P., Kendler, K. S., Evans, A. C. & Giedd, J. N. (2009) 'Differences in Genetic and Environmental Influences on the Human Cerebral Cortex Associated With Development During Childhood and Adolescence', Hum Brain Mapp, 30(1), pp. 163-174.

Lieberman, M. D. & Eisenberger, N. I. (2009) 'Neuroscience. Pains and pleasures of social life', Science, 323(5916), pp. 890-891.

Liu, T. T. (2017) 'Reprint of 'Noise contributions to the fMRI signal: An Overview'', Neuroimage, 154, pp. 4-14.

Long, J. S. & Ervin, L. H. (2000) 'Using heteroscedasticity consistent standard errors in the linear regression model', American Statistician, 54(3), pp. 217-224.

Luna, B., Garver, K. E., Urban, T. A., Lazar, N. A. & Sweeney, J. A. (2004) 'Maturation of cognitive processes from late childhood to adulthood', Child Dev, 75(5), pp. 1357-1372.

Luna, B., Padmanabhan, A. & O'Hearn, K. (2010) 'What has fMRI told us about the development of cognitive control through adolescence?', Brain Cogn, 72(1), pp. 101-113.

Lupien, S. J., McEwen, B. S., Gunnar, M. R. & Heim, C. (2009) 'Effects of stress throughout the lifespan on the brain, behaviour and cognition', Nat Rev Neurosci, 10(6), pp. 434-445.

M

Madhyastha, T., Peverill, M., Koh, N., McCabe, C., Flournoy, J., Mills, K., King, K., Pfeifer, J. & McLaughlin, K. A. (2018) 'Current methods and limitations for longitudinal fMRI analysis across development', Dev Cogn Neurosci, 33, pp. 118-128.

Masten, C. L., Eisenberger, N. I., Borofsky, L. A., Pfeifer, J. H., McNealy, K., Mazziotta, J. C. & Dapretto, M. (2009) 'Neural correlates of social exclusion during adolescence: understanding the distress of peer rejection', Soc Cogn Affect Neurosci, 4(2), pp. 143-157.

Mazaika, P. K., Hoeft, F., Glover, G. H. & Reiss, A. L. (2009) 'Methods and Software for fMRI analyses for Clinical Subjects.', Human Brain Mapping Conference, San Francisco, CA. .

McClure, S. M., Laibson, D. I., Loewenstein, G. & Cohen, J. D. (2004) 'Separate neural systems value immediate and delayed monetary rewards', Science, 306(5695), pp. 503-507.

Menon, V. (2013) 'Developmental pathways to functional brain networks: emerging principles', Trends Cogn Sci, 17(12), pp. 627-640.

Mezulis, A. H., Abramson, L. Y., Hyde, J. S. & Hankin, B. L. (2004) 'Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias', Psychol Bull, 130(5), pp. 711-747.

Miles, D. R. & Carey, G. (1997) 'Genetic and environmental architecture of human aggression', J Pers Soc Psychol, 72(1), pp. 207-217.

Mischel, W., Shoda, Y. & Rodriguez, M. I. (1989) 'Delay of gratification in children', Science, 244(4907), pp. 933-938.

Misic, B. & Sporns, O. (2016) 'From regions to connections and networks: new bridges between brain and behavior', Curr Opin Neurobiol, 40, pp. 1-7.

Moilanen, I., Linna, S. L., Ebeling, H., Kumpulainen, K., Tamminen, T., Piha, J. & Almqvist, F. (1999) 'Are twins' behavioural/emotional problems different from singletons'?', Eur Child Adolesc Psychiatry, 8 Suppl 4, pp. 62-67.

Montag, C., Blaszkiewicz, K., Lachmann, B., Andone, I., Sariyska, R., Trendafilov, B., Reuter, M. & Markowetz, A. (2014) 'Correlating Personality and Actual Phone Usage Evidence From Psychoinformatics', Journal of Individual Differences, 35(3), pp. 158-165.

Montag, C., Markowetz, A., Blaszkiewicz, K., Andone, I., Lachmann, B., Sariyska, R., Trendafilov, B., Eibes, M., Kolb, J., Reuter, M., Weber, B. & Markett, S. (2017) 'Facebook usage on smartphones and gray matter volume of the nucleus accumbens', Behav Brain Res, 329, pp. 221-228.

Mori, S., Crain, B. J., Chacko, V. P. & van Zijl, P. C. (1999) 'Three-dimensional tracking of axonal projections in the brain by magnetic resonance imaging', Ann Neurol, 45(2), pp. 265-269.

Mumford, J. A. & Nichols, T. E. (2008) 'Power calculation for group fMRI studies accounting for arbitrary design and temporal autocorrelation', Neuroimage, 39(1), pp. 261-268.

Murphy, K., Birn, R. M., Handwerker, D. A., Jones, T. B. & Bandettini, P. A. (2009) 'The impact of global signal regression on resting state correlations: are anti-correlated networks introduced?', Neuroimage, 44(3), pp. 893-905.

Myerson, J., Green, L. & Warusawitharana, M. (2001) 'Area under the curve as a measure of discounting', J Exp Anal Behav, 76(2), pp. 235-243.

N

Neale, M. C., Hunter, M. D., Pritikin, J. N., Zahery, M., Brick, T. R., Kirkpatrick, R. M., Estabrook, R., Bates, T. C., Maes, H. H. & Boker, S. M. (2016) 'OpenMx 2.0: Extended Structural Equation and Statistical Modeling', Psychometrika, 81(2), pp. 535-549.

Nelson, E. E., Jarcho, J. M. & Guyer, A. E. (2016) 'Social re-orientation and brain development: An expanded and updated view', Dev Cogn Neurosci, 17, pp. 118-127.

Nelson, E. E., Leibenluft, E., McClure, E. B. & Pine, D. S. (2005) 'The social re-orientation of adolescence: a neuroscience perspective on the process and its relation to psychopathology', Psychol Med, 35(2), pp. 163-174.

Nesdale, D. & Duffy, A. (2011) 'Social identity, peer group rejection, and young children's reactive, displaced, and proactive aggression', Br J Dev Psychol, 29(Pt 4), pp. 823-841.

Nesdale, D. & Lambert, A. (2007) 'Effects of experimentally manipulated peer rejection on children's negative affect, self-esteem, and maladaptive social behavior', International Journal of Behavioral Development, 31(2), pp. 115-122.

Nichols, T., Brett, M., Andersson, J., Wager, T. & Poline, J. B. (2005) 'Valid conjunction inference with the minimum statistic', Neuroimage, 25(3), pp. 653-660.

Nolan, S. A., Flynn, C. & Garber, J. (2003) 'Prospective relations between rejection and depression in young adolescents', J Pers Soc Psychol, 85(4), pp. 745-755.

Nord, C. L., Gray, A., Charpentier, C. J., Robinson, O. J. & Roiser, J. P. (2017) 'Unreliability of putative fMRI biomarkers during emotional face processing', Neuroimage, 156, pp. 119-127.

Novin, S., Bos, M. G. N., Stevenson, C. E. & Rieffe, C. (2018) 'Adolescents' responses to online peer conflict: How self-evaluation and ethnicity matter', Infant and Child Development, 27(2), p. e2067.

O

O'Shaughnessy, E. S., Berl, M. M., Moore, E. N. & Gaillard, W. D. (2008) 'Pediatric functional magnetic resonance imaging (fMRI): Issues and applications', J Child Neurol, 23(7), pp. 791-801.

Ochsner, K. N., Silvers, J. A. & Buhle, J. T. (2012) 'Functional imaging studies of emotion regulation: a synthetic review and evolving model of the cognitive control of emotion', Year in Cognitive Neuroscience, 1251, pp. E1-E24.

Olson, E. A., Collins, P. F., Hooper, C. J., Muetzel, R., Lim, K. O. & Luciana, M. (2009) 'White matter integrity predicts delay discounting behavior in 9- to 23-year-olds: a diffusion tensor imaging study', J Cogn Neurosci, 21(7), pp. 1406-1421.

Olson, E. A., Hooper, C. J., Collins, P. & Luciana, M. (2007) 'Adolescents' performance on delay and probability discounting tasks: contributions of age, intelligence, executive functioning, and self-reported externalizing behavior', Pers Individ Dif, 43(7), pp. 1886-1897.

Open Science, C. (2015) 'PSYCHOLOGY. Estimating the reproducibility of psychological science', Science, 349(6251), p. aac4716.

P

Park, A. T., Leonard, J. A., Saxler, P., Cyr, A. B., Gabrieli, J. D. E. & Mackey, A. P. (in press) 'Amygdala-medial prefrontal connectivity relates to stress and mental health in early childhood', Soc Cogn Affect Neurosci.

Peper, J. S., de Reus, M. A., van den Heuvel, M. P. & Schutter, D. J. (2015) 'Short fused? associations between white matter connections, sex steroids, and aggression across adolescence', Hum Brain Mapp, 36(3), pp. 1043-1052.

Peper, J. S., Mandl, R. C., Braams, B. R., de Water, E., Heijboer, A. C., Koolschijn, P. C. & Crone, E. A. (2013) 'Delay discounting and frontostriatal fiber tracts: a combined DTI and MTR study on impulsive choices in healthy young adults', Cereb Cortex, 23(7), pp. 1695-1702.

Peters, J. & Buchel, C. (2011) 'The neural mechanisms of inter-temporal decision-making: understanding variability', Trends Cogn Sci, 15(5), pp. 227-239.

Peters, S., Braams, B. R., Raijmakers, M. E., Koolschijn, P. C. & Crone, E. A. (2014a) 'The neural coding of feedback learning across child and adolescent development', J Cogn Neurosci, 26(8), pp. 1705-1720.

Peters, S. & Crone, E. A. (2017) 'Increased striatal activity in adolescence benefits learning', Nat Commun, 8(1), p. 1983.

Peters, S., Koolschijn, P. C., Crone, E. A., Van Duijvenvoorde, A. C. K. & Raijmakers, M. E. (2014b) 'Strategies influence neural activity for feedback learning across child and adolescent development', Neuropsychologia, 62, pp. 365-374.

Peters, S., Van Duijvenvoorde, A. C., Koolschijn, P. C. & Crone, E. A. (2016) 'Longitudinal development of frontoparietal activity during feedback learning: Contributions of age, performance, working memory and cortical thickness', Dev Cogn Neurosci, 19, pp. 211-222.

Pfeifer, J. H. & Allen, N. B. (2016) 'The audacity of specificity: Moving adolescent developmental neuroscience towards more powerful scientific paradigms and translatable models', Dev Cogn Neurosci, 17, pp. 131-137.

Pfeifer, J. H., Allen, N. B., Byrne, M. L. & Mills, K. L. (2018) 'Modeling Developmental Change: Contemporary Approaches to Key Methodological Challenges in Developmental Neuroimaging', Dev Cogn Neurosci, 33, pp. 1-4.

Phelps, E. A. (2004) 'Human emotion and memory: interactions of the amygdala and hippocampal complex', Curr Opin Neurobiol, 14(2), pp. 198-202.

Pinheiro, J., Bates, D., DebRoy, S. & Sarkar, D. (2013) 'the R Development Core Team: nlme: Linear and Nonlinear Mixed Effects Models.', R package version 3.1-104. In.

Polderman, T. J., Benyamin, B., de Leeuw, C. A., Sullivan, P. F., van Bochoven, A., Visscher, P. M. & Posthuma, D. (2015) 'Meta-analysis of the heritability of human traits based on fifty years of twin studies', Nat Genet, 47(7), pp. 702-709.

Poldrack, R. A. (2007) 'Region of interest analysis for fMRI', Soc Cogn Affect Neurosci, 2(1), pp. 67-70.

Poldrack, R. A., Pare-Blagoev, E. J. & Grant, P. E. (2002) 'Pediatric functional magnetic resonance imaging: progress and challenges', Top Magn Reson Imaging, 13(1), pp. 61-70.

Porsch, R. M., Middeldorp, C. M., Cherny, S. S., Krapohl, E., van Beijsterveldt, C. E. M., Loukola, A., Korhonen, T., Pulkkinen, L., Corley, R., Rhee, S., Kaprio, J., Rose, R. R., Hewitt, J. K., Sham, P., Plomin, R., Boomsma, D. I. & Bartels, M. (2016) 'Longitudinal Heritability of Childhood Aggression', American Journal of Medical Genetics Part B-Neuropsychiatric Genetics, 171(5), pp. 697-707.

Porter, J. N., Roy, A. K., Benson, B., Carlisi, C., Collins, P. F., Leibenluft, E., Pine, D. S., Luciana, M. & Ernst, M. (2015) 'Age-related changes in the intrinsic functional connectivity of the human ventral vs. dorsal striatum from childhood to middle age', Dev Cogn Neurosci, 11, pp. 83-95.

Power, J. D. (2017) 'A simple but useful way to assess fMRI scan qualities', Neuroimage, 154, pp. 150-158.

Power, J. D., Barnes, K. A., Snyder, A. Z., Schlaggar, B. L. & Petersen, S. E. (2012) 'Spurious but systematic correlations in functional connectivity MRI networks arise from subject motion', Neuroimage, 59(3), pp. 2142-2154.

Power, J. D., Fair, D. A., Schlaggar, B. L. & Petersen, S. E. (2010) 'The development of human functional brain networks', Neuron, 67(5), pp. 735-748.

Power, J. D., Mitra, A., Laumann, T. O., Snyder, A. Z., Schlaggar, B. L. & Petersen, S. E. (2014) 'Methods to detect, characterize, and remove motion artifact in resting state fMRI', Neuroimage, 84, pp. 320-341.

Power, J. D., Schlaggar, B. L. & Petersen, S. E. (2015) 'Recent progress and outstanding issues in motion correction in resting state fMRI', Neuroimage, 105, pp. 536-551.

Power, J. D., Silver, B. M., Silverman, M. R., Ajodan, E. L., Bos, D. J. & Jones, R. M. (2019) 'Customized head molds reduce motion during resting state fMRI scans', Neuroimage, 189, pp. 141-149.

Preacher, K. J. & Hayes, A. F. (2008) 'Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models', Behav Res Methods, 40(3), pp. 879-891.

Prinstein, M. J. & La Greca, A. M. (2004) 'Childhood peer rejection and aggression as predictors of adolescent girls' externalizing and health risk behaviors: a 6-year longitudinal study', J Consult Clin Psychol, 72(1), pp. 103-112.

Pulkkinen, L., Vaalamo, I., Hietala, R., Kaprio, J. & Rose, R. J. (2003) 'Peer reports of adaptive behavior in twins and singletons: is twinship a risk or an advantage?', Twin Res, 6(2), pp. 106-118.

R

R Core Team (2015) R: A language and environment for statistical computing, Vienna, Austria, R Foundation for Statistical Computing.

Raschle, N., Zuk, J., Ortiz-Mantilla, S., Sliva, D. D., Franceschi, A., Grant, P. E., Benasich, A. A. & Gaab, N. (2012) 'Pediatric neuroimaging in early childhood and infancy: challenges and practical guidelines', Ann N Y Acad Sci, 1252, pp. 43-50.

Reijntjes, A., Thomaes, S., Bushman, B. J., Boelen, P. A., de Castro, B. O. & Telch, M. J. (2010) 'The outcast-lash-out effect in youth: alienation increases aggression following peer rejection', Psychol Sci, 21(10), pp. 1394-1398.

Reijntjes, A., Thomaes, S., Kamphuis, J. H., Bushman, B. J., de Castro, B. O. & Telch, M. J. (2011) 'Explaining the Paradoxical Rejection-Aggression Link: The Mediating Effects of Hostile Intent Attributions, Anger, and Decreases in State Self-Esteem on Peer Rejection-Induced Aggression in Youth', Personality and Social Psychology Bulletin, 37(7), pp. 955-963.

Rhee, S. H. & Waldman, I. D. (2002) 'Genetic and environmental influences on antisocial behavior: A meta-analysis of twin and adoption studies', Psychol Bull, 128(3), pp. 490-529.

Richards, J. B., Zhang, L., Mitchell, S. H. & de Wit, H. (1999) 'Delay or probability discounting in a model of impulsive behavior: effect of alcohol', J Exp Anal Behav, 71(2), pp. 121-143.

Richmond, S., Johnson, K. A., Seal, M. L., Allen, N. B. & Whittle, S. (2016) 'Development of brain networks and relevance of environmental and genetic factors: A systematic review', Neurosci Biobehav Rev, 71, pp. 215-239.

Riva, P., Romero Lauro, L. J., DeWall, C. N., Chester, D. S. & Bushman, B. J. (2015) 'Reducing aggressive responses to social exclusion using transcranial direct current stimulation', Soc Cogn Affect Neurosci, 10(3), pp. 352-356.

Robbers, S. C., Bartels, M., van Oort, F. V., van Beijsterveldt, C. E., van der Ende, J., Verhulst, F. C., Boomsma, D. I. & Huizink, A. C. (2010) 'A twin-singleton comparison of developmental trajectories of externalizing and internalizing problems in 6- to 12-year-old children', Twin Res Hum Genet, 13(1), pp. 79-87.

Rodman, A. M., Powers, K. E. & Somerville, L. H. (2017) 'Development of self-protective biases in response to social evaluative feedback', Proc Natl Acad Sci U S A, 114(50), pp. 13158-13163.

Rosenberg, D. R., Sweeney, J. A., Gillen, J. S., Kim, J., Varanelli, M. J., O'Hearn, K. M., Erb, P. A., Davis, D. & Thulborn, K. R. (1997) 'Magnetic resonance imaging of children without sedation: preparation with simulation', J Am Acad Child Adolesc Psychiatry, 36(6), pp. 853-859.

Rotge, J. Y., Lemogne, C., Hinfray, S., Huguet, P., Grynszpan, O., Tartour, E., George, N. & Fossati, P. (2015) 'A meta-analysis of the anterior cingulate contribution to social pain', Soc Cogn Affect Neurosci, 10(1), pp. 19-27.

Roy, A. K., Shehzad, Z., Margulies, D. S., Kelly, A. M., Uddin, L. Q., Gotimer, K., Biswal, B. B., Castellanos, F. X. & Milham, M. P. (2009) 'Functional connectivity of the human amygdala using resting state fMRI', Neuroimage, 45(2), pp. 614-626.

Rubia, K. (2013) 'Functional brain imaging across development', Eur Child Adolesc Psychiatry, 22(12), pp. 719-731.

Russo, S. J. & Nestler, E. J. (2013) 'The brain reward circuitry in mood disorders', Nat Rev Neurosci, 14(9), pp. 609-625.

S

Satterthwaite, T. D., Wolf, D. H., Ruparel, K., Erus, G., Elliott, M. A., Eickhoff, S. B., Gennatas, E. D., Jackson, C., Prabhakaran, K., Smith, A., Hakonarson, H., Verna, R., Davatzikos, C., Gur, R. E. & Gur, R. C. (2013) 'Heterogeneous impact of motion on fundamental patterns of developmental changes in functional connectivity during youth', Neuroimage, 83, pp. 45-57.

Savalia, N. K., Agres, P. F., Chan, M. Y., Feczko, E. J., Kennedy, K. M. & Wig, G. S. (2017) 'Motion-related artifacts in structural brain images revealed with independent estimates of in-scanner head motion', Hum Brain Mapp, 38(1), pp. 472-492.

Scheibehenne, B., Jamil, T. & Wagenmakers, E. J. (2016) 'Bayesian Evidence Synthesis Can Reconcile Seemingly Inconsistent Results: The Case of Hotel Towel Reuse', Psychol Sci, 27(7), pp. 1043-1046.

Scheres, A., Dijkstra, M., Ainslie, E., Balkan, J., Reynolds, B., Sonuga-Barke, E. & Castellanos, F. X. (2006) 'Temporal and probabilistic discounting of rewards in children and adolescents: effects of age and ADHD symptoms', Neuropsychologia, 44(11), pp. 2092-2103.

Scheres, A., Sumiya, M. & Thoeny, A. L. (2010) 'Studying the relation between temporal reward discounting tasks used in populations with ADHD: a factor analysis', Int J Methods Psychiatr Res, 19(3), pp. 167-176.

Scheres, A., Tontsch, C., Thoeny, A. L. & Sumiya, M. (2014) 'Temporal reward discounting in children, adolescents, and emerging adults during an experiential task', Front Psychol, 5, p. 711.

Scherf, K. S., Behrmann, M. & Dahl, R. E. (2012) 'Facing changes and changing faces in adolescence: a new model for investigating adolescent-specific interactions between pubertal, brain and behavioral development', Dev Cogn Neurosci, 2(2), pp. 199-219.

Schmidt, S. (2009) 'Shall We Really Do It Again? The Powerful Concept of Replication Is Neglected in the Social Sciences', Review of General Psychology, 13(2), pp. 90-100.

Schmithorst, V. J. & Yuan, W. (2010) 'White matter development during adolescence as shown by diffusion MRI', Brain Cogn, 72(1), pp. 16-25.

Schwarz, G. (1978) 'Estimating Dimension of a Model', Annals of Statistics, 6(2), pp. 461-464.

Sektnan, M., McClelland, M. M., Acock, A. & Morrison, F. J. (2010) 'Relations between early family risk, children's behavioral regulation, and academic achievement', Early Childhood Research Quarterly, 25(4), pp. 464-479.

Sescousse, G., Caldu, X., Segura, B. & Dreher, J. C. (2013) 'Processing of primary and secondary rewards: a quantitative meta-analysis and review of human functional neuroimaging studies', Neurosci Biobehav Rev, 37(4), pp. 681-696.

Sherman, L. E., Greenfield, P. M., Hernandez, L. M. & Dapretto, M. (2018a) 'Peer Influence Via Instagram: Effects on Brain and Behavior in Adolescence and Young Adulthood', Child Dev, 89(1), pp. 37-47.

Sherman, L. E., Hernandez, L. M., Greenfield, P. M. & Dapretto, M. (2018b) 'What the brain 'Likes': neural correlates of providing feedback on social media', Soc Cogn Affect Neurosci, 13(7), pp. 699-707.

Siegle, G. J., Steinhauer, S. R., Carter, C. S., Ramel, W. & Thase, M. E. (2003) 'Do the seconds turn into hours? Relationships between sustained pupil dilation in response to emotional information and self-reported rumination', Cognitive Therapy and Research, 27(3), pp. 365-382.

Silk, J. S., Siegle, G. J., Lee, K. H., Nelson, E. E., Stroud, L. R. & Dahl, R. E. (2014) 'Increased neural response to peer rejection associated with adolescent depression and pubertal development', Soc Cogn Affect Neurosci, 9(11), pp. 1798-1807.

Silk, J. S., Stroud, L. R., Siegle, G. J., Dahl, R. E., Lee, K. H. & Nelson, E. E. (2012) 'Peer acceptance and rejection through the eyes of youth: pupillary, eyetracking and ecological data from the Chatroom Interact task', Soc Cogn Affect Neurosci, 7(1), pp. 93-105.

Silvers, J. A., Insel, C., Powers, A., Franz, P., Helion, C., Martin, R., Weber, J., Mischel, W., Casey, B. J. & Ochsner, K. N. (2016a) 'The transition from childhood to adolescence is marked by a general decrease in amygdala reactivity and an affect-specific ventral-to-dorsal shift in medial prefrontal recruitment', Dev Cogn Neurosci.

Silvers, J. A., Insel, C., Powers, A., Franz, P., Helion, C., Martin, R. E., Weber, J., Mischel, W., Casey, B. J. & Ochsner, K. N. (2016b) 'vlPFC-vmPFC-Amygdala Interactions Underlie Age-Related Differences in Cognitive Regulation of Emotion', Cereb Cortex.

Silvers, J. A., McRae, K., Gabrieli, J. D., Gross, J. J., Remy, K. A. & Ochsner, K. N. (2012) 'Age-related differences in emotional reactivity, regulation, and rejection sensitivity in adolescence', Emotion, 12(6), pp. 1235-1247.

Simmonds, D. J., Hallquist, M. N., Asato, M. & Luna, B. (2014) 'Developmental stages and sex differences of white matter and behavioral development through adolescence: a longitudinal diffusion tensor imaging (DTI) study', Neuroimage, 92, pp. 356-368.

Singmann, H. (2013) 'afex: analysis of Factorial Experiments. R package version 0.7-90', http://CRAN.R-project.org/package afex.

Smith, S. M. (2002) 'Fast robust automated brain extraction', Hum Brain Mapp, 17(3), pp. 143-155.

Smith, S. M., Jenkinson, M., Woolrich, M. W., Beckmann, C. F., Behrens, T. E., Johansen-Berg, H., Bannister, P. R., De Luca, M., Drobnjak, I., Flitney, D. E., Niazy, R. K., Saunders, J., Vickers, J., Zhang, Y., De Stefano, N., Brady, J. M. & Matthews, P. M. (2004) 'Advances in functional and structural MR image analysis and implementation as FSL', Neuroimage, 23 Suppl 1, pp. S208-219.

Smith, S. M. & Nichols, T. E. (2009) 'Threshold-free cluster enhancement: addressing problems of smoothing, threshold dependence and localisation in cluster inference', Neuroimage, 44(1), pp. 83-98.

Somerville, L. H., Heatherton, T. F. & Kelley, W. M. (2006) 'Anterior cingulate cortex responds differentially to expectancy violation and social rejection', Nat Neurosci, 9(8), pp. 1007-1008.

Somerville, L. H., Jones, R. M. & Casey, B. J. (2010) 'A time of change: behavioral and neural correlates of adolescent sensitivity to appetitive and aversive environmental cues', Brain Cogn, 72(1), pp. 124-133.

Sowell, E. R., Delis, D., Stiles, J. & Jernigan, T. L. (2001) 'Improved memory functioning and frontal lobe maturation between childhood and adolescence: a structural MRI study', J Int Neuropsychol Soc, 7(3), pp. 312-322.

Stein, J. L., Wiedholz, L. M., Bassett, D. S., Weinberger, D. R., Zink, C. F., Mattay, V. S. & Meyer-Lindenberg, A. (2007) 'A validated network of effective amygdala connectivity', Neuroimage, 36(3), pp. 736-745.

Steinberg, L. (2008) 'A Social Neuroscience Perspective on Adolescent Risk-Taking', Dev Rev, 28(1), pp. 78-106.

Steinberg, L., Albert, D., Cauffman, E., Banich, M., Graham, S. & Woolard, J. (2008) 'Age differences in sensation seeking and impulsivity as indexed by behavior and self-report: evidence for a dual systems model', Dev Psychol, 44(6), pp. 1764-1778.

Steinberg, L. & Chein, J. M. (2015) 'Multiple accounts of adolescent impulsivity', Proc Natl Acad Sci U S A, 112(29), pp. 8807-8808.

Steinberg, L., Elmen, J. D. & Mounts, N. S. (1989) 'Authoritative Parenting, Psychosocial Maturity, and Academic-Success among Adolescents', Child Dev, 60(6), pp. 1424-1436.

T

Tabachnick, B. & Fidell, S. (2013) Using Multivariate Statistics, 6th edition, Boston, Pearson.

Telzer, E. H., McCormick, E. M., Peters, S., Cosme, D., Pfeifer, J. H. & van Duijvenvoorde, A. C. K. (2018) 'Methodological considerations for developmental longitudinal fMRI research', Dev Cogn Neurosci.

Thomaes, S., Stegge, H., Olthof, T., Bushman, B. J. & Nezlek, J. B. (2011) 'Turning Shame Inside-Out: "Humiliated Fury" in Young Adolescents', Emotion, 11(4), pp. 786-793.

Thomason, M. E. (2009) 'Children in Non-Clinical Functional Magnetic Resonance Imaging (fMRI) Studies Give the Scan Experience a "Thumbs Up"', American Journal of Bioethics, 9(1), pp. 25-27.

Thomason, M. E., Dennis, E. L., Joshi, A. A., Joshi, S. H., Dinov, I. D., Chang, C., Henry, M. L., Johnson, R. F., Thompson, P. M., Toga, A. W., Glover, G. H., Van Horn, J. D. & Gotlib, I. H. (2011) 'Resting-state fMRI can reliably map neural networks in children', Neuroimage, 55(1), pp. 165-175.

Tottenham, N. & Galvan, A. (2016) 'Stress and the adolescent brain: Amygdala-prefrontal cortex circuitry and ventral striatum as developmental targets', Neurosci Biobehav Rev, 70, pp. 217-227.

Tottenham, N., Hare, T. A., Millner, A., Gilhooly, T., Zevin, J. D. & Casey, B. J. (2011) 'Elevated amygdala response to faces following early deprivation', Dev Sci, 14(2), pp. 190-204.

Tottenham, N. & Sheridan, M. A. (2009) 'A review of adversity, the amygdala and the hippocampus: a consideration of developmental timing', Front Hum Neurosci, 3, p. 68.

Turkeltaub, P. E., Eickhoff, S. B., Laird, A. R., Fox, M., Wiener, M. & Fox, P. (2012) 'Minimizing within-experiment and within-group effects in Activation Likelihood Estimation meta-analyses', Hum Brain Mapp, 33(1), pp. 1-13.

Tuvblad, C. & Baker, L. A. (2011) 'Human aggression across the lifespan: genetic propensities and environmental moderators', Adv Genet, 75, pp. 171-214.

Tuvblad, C., Raine, A., Zheng, M. & Baker, L. A. (2009) 'Genetic and environmental stability differs in reactive and proactive aggression', Aggress Behav, 35(6), pp. 437-452.

Twenge, J. M., Baumeister, R. F., Tice, D. M. & Stucke, T. S. (2001) 'If you can't join them, beat them: effects of social exclusion on aggressive behavior', J Pers Soc Psychol, 81(6), pp. 1058-1069.

Tyc, V. L., Fairclough, D., Fletcher, B., Leigh, L. & Mulhern, R. K. (1995) 'Childrens Distress during Magnetic-Resonance-Imaging Procedures', Childrens Health Care, 24(1), pp. 5-19.

Tziortzi, A. C., Haber, S. N., Searle, G. E., Tsoumpas, C., Long, C. J., Shotbolt, P., Douaud, G., Jbabdi, S., Behrens, T. E. J., Rabiner, E. A., Jenkinson, M. & Gunn, R. N. (2014) 'Connectivity-Based Functional Analysis of Dopamine Release in the Striatum Using Diffusion-Weighted MRI and Positron Emission Tomography', Cereb Cortex, 24(5), pp. 1165-1177.

Tzourio-Mazoyer, N., Landeau, B., Papathanassiou, D., Crivello, F., Etard, O., Delcroix, N., Mazoyer, B. & Joliot, M. (2002) 'Automated anatomical labeling of activations in SPM using a macroscopic anatomical parcellation of the MNI MRI single-subject brain', Neuroimage, 15(1), pp. 273-289.

U

Ullman, H., Almeida, R. & Klingberg, T. (2014) 'Structural maturation and brain activity predict future working memory capacity during childhood development', J Neurosci, 34(5), pp. 1592-1598.

V

van den Bos, W., Rodriguez, C. A., Schweitzer, J. B. & McClure, S. M. (2014) 'Connectivity strength of dissociable striatal tracts predict individual differences in temporal discounting', J Neurosci, 34(31), pp. 10298-10310.

van den Bos, W., Rodriguez, C. A., Schweitzer, J. B. & McClure, S. M. (2015) 'Adolescent impatience decreases with increased frontostriatal connectivity', Proc Natl Acad Sci U S A, 112(29), pp. E3765-3774.

van den Bos, W., van Dijk, E., Westenberg, M., Rombouts, S. A. & Crone, E. A. (2011) 'Changing brains, changing perspectives: the neurocognitive development of reciprocity', Psychol Sci, 22(1), pp. 60-70.

van den Bulk, B. G., Koolschijn, P. C., Meens, P. H., van Lang, N. D., van der Wee, N. J., Rombouts, S. A., Vermeiren, R. R. & Crone, E. A. (2013) 'How stable is activation in the amygdala and prefrontal cortex in adolescence? A study of emotional face processing across three measurements', Dev Cogn Neurosci, 4, pp. 65-76.

van den Heuvel, M. P., van Soelen, I. L., Stam, C. J., Kahn, R. S., Boomsma, D. I. & Hulshoff Pol, H. E. (2013) 'Genetic control of functional brain network efficiency in children', Eur Neuropsychopharmacol, 23(1), pp. 19-23.

van der Meulen, M., Steinbeis, N., Achterberg, M., van, I. M. H. & Crone, E. A. (2018) 'Heritability of neural reactions to social exclusion and prosocial compensation in middle childhood', Dev Cogn Neurosci, 34, pp. 42-52.

van Dijk, K. R., Hedden, T., Venkataraman, A., Evans, K. C., Lazar, S. W. & Buckner, R. L. (2010) 'Intrinsic functional connectivity as a tool for human connectomics: theory, properties, and optimization', J Neurophysiol, 103(1), pp. 297-321.

van Dijk, K. R., Sabuncu, M. R. & Buckner, R. L. (2012) 'The influence of head motion on intrinsic functional connectivity MRI', Neuroimage, 59(1), pp. 431-438.

van Duijvenvoorde, A. C., Achterberg, M., Braams, B. R., Peters, S. & Crone, E. A. (2016a) 'Testing a dual-systems model of adolescent brain development using resting-state connectivity analyses', Neuroimage, 124(Pt A), pp. 409-420.

van Duijvenvoorde, A. C., Peters, S., Braams, B. R. & Crone, E. A. (2016b) 'What motivates adolescents? Neural responses to rewards and their influence on adolescents' risk taking, learning, and cognitive control', Neurosci Biobehav Rev, 70, pp. 135-147.

van Horn, J. D. & Pelphrey, K. A. (2015) 'Neuroimaging of the developing brain', Brain Imaging Behav, 9(1), pp. 1-4.

van IJzendoorn, M. H. (1994) 'Process model of replication studies: on the relations between different types of replication. ', in R. van der Veer, M. H. Van IJzendoorn & J. Valsiner (eds), On reconstructing the mind. Replicability in research on human development, NJ.: Ablex, Norwood.

van Zeijl, J., Mesman, J., Van, I. M. H., Bakermans-Kranenburg, M. J., Juffer, F., Stolk, M. N., Koot, H. M. & Alink, L. R. (2006) 'Attachment-based intervention for enhancing sensitive discipline in mothers of 1- to 3-year-old children at risk for externalizing behavior problems: a randomized controlled trial', J Consult Clin Psychol, 74(6), pp. 994-1005.

Verhulst, B. (2017) 'A Power Calculator for the Classical Twin Design', Behav Genet, 47(2), pp. 255-261.

Vijayakumar, N., Cheng, T. W. & Pfeifer, J. H. (2017) 'Neural correlates of social exclusion across ages: A coordinate-based meta-analysis of functional MRI studies', Neuroimage, 153, pp. 359-368.

Visscher, P. M. (2004) 'Power of the classical twin design revisited', Twin Res, 7(5), pp. 505-512.

Vogel, A. C., Power, J. D., Petersen, S. E. & Schlaggar, B. L. (2010) 'Development of the Brain's Functional Network Architecture', Neuropsychol Rev, 20(4), pp. 362-375.

Vrijhof, C. I., van der Voort, A., van IJzendoorn, M. H. & Euser, S. (2018) 'Stressful Family Environments and Children's Behavioral Control: A Multimethod Test and Replication Study With Twins', Journal of Family Psychology, 32(1), pp. 49-59.

W

Watts, T. W., Duncan, G. J. & Quan, H. (2018) 'Revisiting the Marshmallow Test: A Conceptual Replication Investigating Links Between Early Delay of Gratification and Later Outcomes', Psychol Sci, 29(7), pp. 1159-1177.

Wechsler, D. (1991) The Wechsler intelligence scale for children—third edition. , San Antonio, TX, The Psychological Corporation.

Wechsler, D. (1997) WAIS-III, wechsler adult intelligence scale: Administration and scoring manual., Psychological Corporation. .

Welsh, M. & Peterson, E. (2014) 'Issues in the Conceptualization and Assessment of Hot Executive Functions in Childhood', Journal of the International Neuropsychological Society, 20(2), pp. 152-156.

Whelan, R., Conrod, P. J., Poline, J. B., Lourdusamy, A., Banaschewski, T., Barker, G. J., Bellgrove, M. A., Buchel, C., Byrne, M., Cummins, T. D., Fauth-Buhler, M., Flor, H., Gallinat, J., Heinz, A., Ittermann, B., Mann, K., Martinot, J. L., Lalor, E. C., Lathrop, M., Loth, E., Nees, F., Paus, T., Rietschel, M., Smolka, M. N., Spanagel, R., Stephens, D. N., Struve, M., Thyreau, B., Vollstaedt-Klein, S., Robbins, T. W., Schumann, G., Garavan, H. & Consortium, I. (2012) 'Adolescent impulsivity phenotypes characterized by distinct brain networks', Nat Neurosci, 15(6), pp. 920-925.

Whittle, S., Lichter, R., Dennison, M., Vijayakumar, N., Schwartz, O., Byrne, M. L., Simmons, J. G., Yucel, M., Pantelis, C., McGorry, P. & Allen, N. B. (2014) 'Structural brain development and depression onset during adolescence: a prospective longitudinal study', Am J Psychiatry, 171(5), pp. 564-571.

Wierenga, L. M., Bos, M. G. N., Schreuders, E., Vd Kamp, F., Peper, J. S., Tamnes, C. K. & Crone, E. A. (2018a) 'Unraveling age, puberty and testosterone effects on subcortical brain development across adolescence', Psychoneuroendocrinology, 91, pp. 105-114.

Wierenga, L. M., van den Heuvel, M. P., Oranje, B., Giedd, J. N., Durston, S., Peper, J. S., Brown, T. T., Crone, E. A., The Pediatric Longitudinal Imaging, N. & Genetics, S. (2018b) 'A multisample study of longitudinal changes in brain network architecture in 4-13-year-old children', Hum Brain Mapp, 39(1), pp. 157-170.

Williams, K. D. (2007) 'Ostracism', Annu Rev Psychol, 58, pp. 425-452.

Williams, K. D., Cheung, C. K. & Choi, W. (2000) 'Cyberostracism: effects of being ignored over the Internet', J Pers Soc Psychol, 79(5), pp. 748-762.

Woo, C. W., Krishnan, A. & Wager, T. D. (2014) 'Cluster-extent based thresholding in fMRI analyses: Pitfalls and recommendations', Neuroimage, 91, pp. 412-419.

Y

Yang, Z., Zuo, X. N., McMahon, K. L., Craddock, R. C., Kelly, C., de Zubicaray, G. I., Hickie, I., Bandettini, P. A., Castellanos, F. X., Milham, M. P. & Wright, M. J. (2016) 'Genetic and Environmental Contributions to Functional Connectivity Architecture of the Human Brain', Cereb Cortex, 26(5), pp. 2341-2352.

Yeo, B. T., Krienen, F. M., Sepulcre, J., Sabuncu, M. R., Lashkari, D., Hollinshead, M., Roffman, J. L., Smoller, J. W., Zollei, L., Polimeni, J. R., Fischl, B., Liu, H. & Buckner, R. L. (2011) 'The organization of the human cerebral cortex estimated by intrinsic functional connectivity', J Neurophysiol, 106(3), pp. 1125-1165.

Z

Zelazo, P. D. & Carlson, S. M. (2012) 'Hot and Cool Executive Function in Childhood and Adolescence: Development and Plasticity', Child Development Perspectives, 6(4), pp. 354-360.

Zeng, L. L., Wang, D., Fox, M. D., Sabuncu, M., Hu, D., Ge, M., Buckner, R. L. & Liu, H. (2014) 'Neurobiological basis of head motion in brain imaging', Proc Natl Acad Sci U S A, 111(16), pp. 6058-6062.

Zhang, Y. Y., Brady, M. & Smith, S. (2001) 'Segmentation of brain MR images through a hidden Markov random field model and the expectation-maximization algorithm', IEEE Trans Med Imaging, 20(1), pp. 45-57.

LIST OF PUBLICATIONS

Publicatielijst

Published:

Achterberg, M. & van der Meulen, M. (2019) Genetic and environmental influences on MRI scan quantity and quality. *Developmental Cognitive Neuroscience,* 38, pp. 100667.

Achterberg, M., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., van der Meulen, M., Tottenham, N. & Crone, E. A. (2018) Distinctive heritability patterns of subcortical-prefrontal cortex resting state connectivity in childhood: A twin study. *Neuroimage,* 175, pp. 138-149.

Achterberg, M., van Duijvenvoorde, A. C. K., van der Meulen, M., Bakermans-Kranenburg, M. J. & Crone, E. A. (2018) Heritability of aggression following social evaluation in middle childhood: An fMRI study. *Human Brain Mapping,* 39, pp. 2828-2841.

van der Meulen, M., Steinbeis, N., **Achterberg, M.**, van IJzendoorn, M. H., & Crone, E. A. (2018). Heritability of neural reactions to social exclusion and prosocial compensation in middle childhood. *Developmental Cognitive Neuroscience,* 34, 42-52.

Achterberg, M., van Duijvenvoorde, A. C. K., van der Meulen, M., Euser, S., Bakermans-Kranenburg, M. J. & Crone, E. A. (2017) The neural and behavioral correlates of social evaluation in childhood. *Developmental Cognitive Neuroscience*, 24, pp. 107-117.

Bos, D.J., Oranje, B., **Achterberg, M.**, Vlaskamp, C., Ambrosino, S., de Reus, M. A., van der Heuvel, M. P. & Rombouts, S. A. R. B. (2017). Structural and functional connectivity in children and adolescents with Attention Deficit/Hyperactivity Disorder. *Journal of Child Psychology and Psychiatry,* 58, pp. 810-818.

van der Meulen, M., Steinbeis, N., **Achterberg, M.**, Bilo, E., van den Bulk, B. G., van IJzendoorn, M. H., & Crone, E. A. (2017). The neural correlates of dealing with social exclusion in childhood. *Neuropsychologia*, 103, 27-39.

Achterberg, M.*, Peper, J. S*., van Duijvenvoorde, A. C., Mandl, R. C. & Crone, E. A. (2016) Frontostriatal White Matter Integrity Predicts Development of Delay of Gratification: A Longitudinal Study, *Journal of Neuroscience*, 36, pp. 1954-1961. **shared first author*

Achterberg, M., van Duijvenvoorde, A. C., Bakermans-Kranenburg, M. J. & Crone, E. A. (2016) Control your anger! The neural basis of aggression regulation in response to negative social feedback. *Social Cognitive and Affective Neuroscience,* 11, pp. 712-720.

Van Duijvenvoorde, A. C. K., **Achterberg, M.**, Braams, B. R., Peters, S., & Crone, E. A. (2016). Testing a dual-systems model of adolescent brain development using resting-state connectivity analyses. Neuroimage, 1, 409-420.

In revision:

Achterberg, M., van Duijvenvoorde, A. C. K., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J. & Crone, E. A. Longitudinal changes in DLPFC activation during childhood are related to decreased aggression following social rejection.

Crone, E.A., **Achterberg, M.**, Dobbelaar, S., Euser, S., van den Bulk, B. G., van der Meulen, M., van Druunen, L., Wierenga, L.M., Bakermans-Kranenburg, M. J & van IJzendoorn, M.H. Social acceptance and inclusion from early to middle childhood: The Leiden consortium on Individual Development on neurocognitive development and social enrichment.

Konijn, E.A., & **Achterberg, M.** Neuropsychological Underpinnings of Emotional Responsiveness to Media. In J. van den Bulck (Ed.), The International Encyclopedia of Media Psychology. John Wiley & Sons.

Overgaauw, S., **Achterberg, M.**, Bakermans-Kranenburg, M.J. Aggression after social evaluations in typically and atypically developing adolescents.

Van der Meulen, M., Wierenga, L. M., **Achterberg, M.**, Drenth, N., van IJzendoorn, M.H. & Crone, E. A. Shared genetic and environmental influences on structure of the social brain in children.

ABOUT THE AUTHOR

Curriculum vitae

Curriculum Vitae

Michelle Achterberg was born on May 28th 1991 in Gouda, the Netherlands. After graduating from secondary school (De Goudse Waarden, Gouda) in 2009, she went to Utrecht University to study psychology and neuroscience. Michelle obtained her Bachelor's degree in Psychology in 2012 and her Research Master's degree in Neuroscience and Cognition in 2014. During her masters, Michelle worked as a research intern at the department of (child) psychiatry, University Medical Center Utrecht, were she gained her first experience with neuroimaging in children. During the second year of her studies she joined the Brian and Development Research Center as a research assistant. Following her passion for developmental neuroscience, Michelle started her PhD project in 2014 as part of the Leiden Consortium on Individual Development at Leiden University under supervision of Prof. dr. Eveline Crone, Prof. dr. Marian Bakermans- Kranenburg and Dr. Anna van Duijvenvoorde. In her project, she focused on the underlying neural mechanisms of social emotion regulation in childhood using a large, longitudinal, twin-design. Michelle will continue her work on developmental neuroscience as a post-doctoral researcher at Erasmus University Rotterdam.

Michelle Achterberg werd op 28 mei 1991 geboren te Gouda. Na het behalen van haar vwo-diploma (De Goudse Waarden, Gouda) in 2009 ging ze naar de Universiteit Utrecht om psychologie en neurowetenschappen te studeren. Michelle behaalde haar bachelor diploma Psychologie in 2012 en haar masterdiploma in Neurowetenschap en Cognitie in 2014. Tijdens haar masteropleiding werkte Michelle als onderzoek stagiaire bij de afdeling (kinder) psychiatrie van het Universitair Medisch Centrum Utrecht, waar ze haar eerste ervaringen opdeed met hersenonderzoek bij kinderen. Tijdens het tweede jaar van haar masterstudie begon Michelle als onderzoeksassistent bij het Breinlab in Leiden. Michelle volgde haar passie voor neurowetenschappelijk onderzoek en begon in 2014 haar promotieonderzoek binnen het Samen Uniek tweelingonderzoek onder begeleiding van Prof. dr. Eveline Crone, Prof. dr. Marian Bakermans-Kranenburg en Dr. Anna van Duijvenvoorde. Tijdens haar promotie heeft Michelle onderzoek gedaan naar de neurale mechanisme van sociale emotie regulatie in kinderen door middel van een groot, longitudinaal tweelingonderzoek. Michelle zal haar onderzoek naar hersenontwikkeling voortzetten als postdoctoraal onderzoeker aan de Erasmus Universiteit Rotterdam.