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Appendix

References

A

- 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. *The Journal of Neuroscience*, *36*(6), 1954-1961.
- Achterberg, M., Van Duijvenvoorde, A. C., 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*, 107-117.
- Addington, J., & Addington, D. (2005). Patterns of premorbid functioning in first episode psychosis: relationship to 2-year outcome. *Acta Psychiatrica Scandinavica*, *112*(1), 40-46.
- Addington, J., & Addington, D. (2008). Social and cognitive functioning in psychosis. *Schizophrenia research*, *99*(1), 176-181.
- Adolphs, R. (2009). The social brain: neural basis of social knowledge. *Annual Review of Psychology*, *60*, 693-716.
- Adolphs, R. (2010). What does the amygdala contribute to social cognition? *Annals of the New York Academy of Sciences*, *1191*(1), 42-61.
- Akan, Z., Yilmaz, A., Özdemir, O., & Korpınar, M. A. (2012). Noise pollution, psychiatric symptoms and quality of life: noise problem in the east region of Turkey. *Journal of Inonu University Medical Faculty*, *19*(2), 75-81.
- Alquicer, G., Morales-Medina, J. C., Quirion, R., & Flores, G. (2008). Postweaning social isolation enhances morphological changes in the neonatal ventral hippocampal lesion rat model of psychosis. *Journal of chemical neuroanatomy*, *35*(2), 179-187.
- American Psychiatric Association. (2000). DSM-IV-TR: Diagnostic and statistical manual of mental disorders, text revision. *Washington, DC: American Psychiatric Association.*
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*: American Psychiatric Pub.
- Amodio, D. M. (2010). Can neuroscience advance social psychological theory? Social neuroscience for the behavioral social psychologist. *Social Cognition*, *28*(6), 695.
- Amodio, D. M., & Frith, C. D. (2006). Meeting of minds: the medial frontal cortex and social cognition. *Nature Reviews Neuroscience*, *7*(4), 268-277.
- Andreoni, J., & Vesterlund, L. (2001). Which is the fair sex? Gender differences in altruism. *Quarterly Journal of Economics*, *293*-312.
- Aoki, R., Matsumoto, M., Yomogida, Y., Izuma, K., Murayama, K., Sugiura, A., . . . Matsumoto, K. (2014). Social equality in the number of choice options is represented in the ventromedial prefrontal cortex. *Journal of Neuroscience*, *34*(18), 6413-6421.
- Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for? *Child development perspectives*, *1*(2), 68-73.
- Attademo, L., Bernardini, F., Garinella, R., & Compton, M. T. (2017). Environmental pollution and risk of psychotic disorders: A review of the science to date. *Schizophrenia research*, *181*, 55-59.
- Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. *Science*, *211*(4489), 1390-1396.

B

- Baas, D., Aleman, A., Vink, M., Ramsey, N. F., de Haan, E. H., & Kahn, R. S. (2008). Evidence of altered cortical and amygdala activation during social decision-making in schizophrenia. *Neuroimage*, *40*(2), 719-727.
- Badre, D., & Wagner, A. D. (2004). Selection, integration, and conflict monitoring: assessing the nature and generality of prefrontal cognitive control mechanisms. *Neuron*, *41*(3), 473-487.
- Bakolis, I., Hammoud, R., Smythe, M., Gibbons, J., Davidson, N., Tognin, S., & Mechelli, A. (2018). Urban Mind: Using Smartphone Technologies to Investigate the Impact of Nature on Mental Well-Being in Real Time. *BioScience*.
- Balliet, D., Li, N. P., Macfarlan, S. J., & Van Vugt, M. (2011). Sex differences in cooperation: a meta-analytic review of social dilemmas. *Psychological bulletin*, *137*(6), 881.
- Balliet, D., & Van Lange, P. A. M. (2013a). Trust, conflict, and cooperation: a meta-analysis. *Psychological bulletin*, *139*(5), 1090.
- Balliet, D., & Van Lange, P. A. M. (2013b). Trust, punishment, and cooperation across 18 societies A Meta-Analysis. *Perspectives on Psychological Science*, *8*(4), 363-379.
- Ballon, J. S., Kaur, T., Marks, I. I., & Cadenhead, K. S. (2007). Social functioning in young people at risk for schizophrenia. *Psychiatry research*, *151*(1), 29-35.

- Barbey, A. K., Koenigs, M., & Grafman, J. (2013). Dorsolateral prefrontal contributions to human working memory. *Cortex*, 49(5), 1195-1205.
- Baron-Cohen, S., Wheelwright, S., Hill, J., Raste, Y., & Plumb, I. (2001). The "Reading the Mind in the Eyes" test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism. *Journal of child psychology and psychiatry*, 42(2), 241-251.
- Barracough, D. J., Conroy, M. L., & Lee, D. (2004). Prefrontal cortex and decision making in a mixed-strategy game. *Nature Neuroscience*, 7(4), 404-410.
- Bartholomeusz, C.F., Ganella, E.P., Whittle, S., Allott, K., Thompson, A., Abu-Akel, A., . . . Pantelis, C. (2018). An fMRI study of theory of mind in individuals with first episode psychosis. *Psychiatry Research: Neuroimaging* 281, 1-11.
- Baumgartner, T., Fischbacher, U., Feierabend, A., Lutz, K., & Fehr, E. (2009). The neural circuitry of a broken promise. *Neuron*, 64(5), 756-770.
- Baumgartner, T., Heinrichs, M., Vonlanthen, A., Fischbacher, U., & Fehr, E. (2008). Oxytocin shapes the neural circuitry of trust and trust adaptation in humans. *Neuron*, 58(4), 639-650.
- Belli, S. R., Rogers, R. D., & Lau, J. Y. (2012). Adult and adolescent social reciprocity: experimental data from the trust game. *Journal of adolescence*, 35(5), 1341-1349.
- Bellucci, G., Chernyak, S. V., Goodyear, K., Eickhoff, S. B., & Krueger, F. (2016). Neural signatures of trust in reciprocity: A coordinate-based meta-analysis. *Human brain mapping*.
- Benedetti, F., Bernasconi, A., Bosia, M., Cavallaro, R., Dallspezia, S., Falini, A., . . . Scotti, G. (2009). Functional and structural brain correlates of theory of mind and empathy deficits in schizophrenia. *Schizophrenia research*, 114(1), 154-160.
- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and economic behavior*, 10(1), 122-142.
- Beutel, A. M., & Johnson, M. K. (2004). Gender and prosocial values during adolescence: A research note. *The Sociological Quarterly*, 45(2), 379-393.
- Bickart, K. C., Dickerson, B. C., & Barrett, L. F. (2014). The amygdala as a hub in brain networks that support social life. *Neuropsychologia*, 63, 235-248.
- Billeke, P., Armijo, A., Castillo, D., López, T., Zamorano, F., Cosmelli, D., & Aboitiz, F. (2015). Paradoxical expectation: oscillatory brain activity reveals social interaction impairment in schizophrenia. *Biological Psychiatry*, 78(6), 421-431.
- Birchwood, M., & Macmillan, F. (1993). Early intervention in schizophrenia. *Australian and New Zealand Journal of Psychiatry*, 27(3), 374-378.
- Blakemore, S.-J. (2008). The social brain in adolescence. *Nature Reviews Neuroscience*, 9(4), 267-277.
- Blakemore, S.-J. (2012). Imaging brain development: the adolescent brain. *Neuroimage*, 61(2), 397-406.
- Blakemore, S.-J., Den Ouden, H., Choudhury, S., & Frith, C. D. (2007). Adolescent development of the neural circuitry for thinking about intentions. *Social cognitive and affective neuroscience*, 2(2), 130-139.
- Blakemore, S. J., & Choudhury, S. (2006). Development of the adolescent brain: implications for executive function and social cognition. *Journal of child psychology and psychiatry*, 47(3-4), 296-312.
- Block, M. L., Elder, A., Auten, R. L., Bilbo, S. D., Chen, H., Chen, J.-C., . . . Dorman, D. C. (2012). The outdoor air pollution and brain health workshop. *Neurotoxicology*, 33(5), 972-984.
- Bolling, D. Z., Pitskel, N. B., Deen, B., Crowley, M. J., McPartland, J. C., Mayes, L. C., & Pelphrey, K. A. (2011). Dissociable brain mechanisms for processing social exclusion and rule violation. *Neuroimage*, 54(3), 2462-2471.
- Bora, E., & Pantelis, C. (2013). Theory of mind impairments in first-episode psychosis, individuals at ultra-high risk for psychosis and in first-degree relatives of schizophrenia: systematic review and meta-analysis. *Schizophrenia research*, 144(1), 31-36.
- Bratman, G. N., Hamilton, J. P., Hahn, K. S., Daily, G. C., & Gross, J. J. (2015). Nature experience reduces rumination and subgenual prefrontal cortex activation. *Proceedings of the National Academy of Sciences*, 112(28), 8567-8572.
- Brock, T. C. (1968). Implications of commodity theory for value change. *Psychological foundations of attitudes*, 1, 243-275.
- Brockmeyer, S., & D'Angiulli, A. (2016). How Air Pollution Alters Brain Development: The Role of Neuroinflammation (Vol. 7).

- Brohan, E., Elgie, R., Sartorius, N., Thornicroft, G., & Group, G.-E. S. (2010). Self-stigma, empowerment and perceived discrimination among people with schizophrenia in 14 European countries: the GAMIAN-Europe study. *Schizophrenia research*, *122*(1-3), 232-238.
- Broome, M. R., Day, F., Valli, I., Valmaggia, L., Johns, L., Howes, O., . . . McGuire, P. (2012). Delusional ideation, manic symptomatology and working memory in a cohort at clinical high-risk for psychosis: a longitudinal study. *European Psychiatry*, *27*(4), 258-263.
- Broome, M. R., Fusar-Poli, P., Matthiasson, P., Woolley, J. B., Valmaggia, L., Johns, L. C., . . . Brammer, M. J. (2010). Neural correlates of visuospatial working memory in the 'at-risk mental state'. *Psychological medicine*, *40*(12), 1987-1999.
- Broome, M. R., Woolley, J. B., Johns, L. C., Valmaggia, L. R., Tabraham, P., Gafoor, R., . . . McGuire, P. K. (2005). Outreach and support in south London (OASIS): implementation of a clinical service for prodromal psychosis and the at risk mental state. *European Psychiatry*, *20*(5), 372-378.
- Brown, B. B. (2004). Adolescents' relationships with peers. *Handbook of adolescent psychology*, *2*, 363-394.
- Brown, E. C., Tas, C., Gonzalez, C., & Brüne, M. (2014). Neurobiologic Underpinnings of Social Cognition and Metacognition in Schizophrenia Spectrum Disorders. *Social Cognition and Metacognition in Schizophrenia*, *1*.
- Brüne, M. (2005). "Theory of mind" in schizophrenia: a review of the literature. *Schizophrenia Bulletin*, *31*(1), 21-42.
- Brüne, M., Özgürdal, S., Ansorge, N., von Reventlow, H. G., Peters, S., Nicolas, V., . . . Lissek, S. (2011). An fMRI study of "theory of mind" in at-risk states of psychosis: comparison with manifest schizophrenia and healthy controls. *Neuroimage*, *55*(1), 329-337.
- Buchan, N. R., Croson, R. T., & Solnick, S. (2008). Trust and gender: An examination of behavior and beliefs in the Investment Game. *Journal of Economic Behavior & Organization*, *68*(3), 466-476.
- Buckner, R. L., Andrews-Hanna, J. R., & Schacter, D. L. (2008). The brain's default network. *Annals of the New York Academy of Sciences*, *1124*(1), 1-38.
- Burnett, S., Sebastian, C., Cohen Kadosh, K., & Blakemore, S.-J. (2011). The social brain in adolescence: Evidence from functional magnetic resonance imaging and behavioural studies. *Neuroscience & Biobehavioral Reviews*, *35*(8), 1654-1664. doi: <http://dx.doi.org/10.1016/j.neubiorev.2010.10.011>

C

- Cáceda, R., Nemeroff, C. B., & Harvey, P. D. (2014). Toward an understanding of decision making in severe mental illness. *The Journal of neuropsychiatry and clinical neurosciences*, *26*(3), 196-213.
- Cahill, L. (2006). Why sex matters for neuroscience. *Nature Reviews Neuroscience*, *7*(6), 477-484.
- Calderón-Garcidueñas, L., Mora-Tiscareño, A., Ontiveros, E., Gómez-Garza, G., Barragán-Mejía, G., Broadway, J., . . . Maronpot, R. R. (2008). Air pollution, cognitive deficits and brain abnormalities: a pilot study with children and dogs. *Brain and Cognition*, *68*(2), 117-127.
- Calderón-Garcidueñas, L., Mora-Tiscareño, A., Styner, M., Gómez-Garza, G., Zhu, H., Torres-Jardón, R., . . . Kavanaugh, M. (2012). White matter hyperintensities, systemic inflammation, brain growth, and cognitive functions in children exposed to air pollution. *Journal of Alzheimer's Disease*, *31*(1), 183-191.
- Callicott, J., Ihne, J., Ursini, G., Blasi, G., Berman, K., Bertolino, A., & Weinberger, D. (2015). S. 11.01 Gene-environment interaction and prefrontal cortical function as measured by fMRI. *European Neuropsychopharmacology*, *25*, S125-S126.
- Camerer, C. (2003). Behavioral game theory: Experiments in strategic interaction: Princeton University Press.
- Campellone, T. R., Fisher, A. J., & Kring, A. M. (2016). Using social outcomes to inform decision-making in schizophrenia: Relationships with symptoms and functioning. *Journal of abnormal psychology*, *125*(2), 310.
- Cannon, T. D., Cadenhead, K., Cornblatt, B., Woods, S. W., Addington, J., Walker, E., . . . McGlashan, T. (2008). Prediction of psychosis in youth at high clinical risk: a multisite longitudinal study in North America. *Archives of general psychiatry*, *65*(1), 28-37.
- Cantor-Graae, E., & Selten, J.-P. (2005). Schizophrenia and migration: a meta-analysis and review. *American Journal of Psychiatry*, *162*(1), 12-24.
- Chan, K. K., & Chen, E. Y. (2011). Theory of mind and paranoia in schizophrenia: a game theoretical investigation framework. *Cognitive neuropsychiatry*, *16*(6), 505-529.
- Chang, L. J., & Sanfey, A. G. (2008). Unforgettable ultimatums? Expectation violations promote enhanced social memory following economic bargaining. *Frontiers in behavioral neuroscience*, *3*, 36-36.
- Chang, L. J., & Sanfey, A. G. (2011). Great expectations: neural computations underlying the use of social norms in decision-making. *Social cognitive and affective neuroscience*, nsr094.
- Chaudhuri, A., & Gangadharan, L. (2003). Gender differences in trust and reciprocity.

- Chiao, J. Y. (2010). Neural basis of social status hierarchy across species. *Current opinion in neurobiology*, 20(6), 803-809.
- Choudhury, S., Blakemore, S.-J., & Charman, T. (2006). Social cognitive development during adolescence. *Social cognitive and affective neuroscience*, 1(3), 165-174.
- Cieslik, E. C., Zilles, K., Caspers, S., Roski, C., Kellermann, T. S., Jakobs, O., . . . Eickhoff, S. B. (2012). Is there "one" DLPFC in cognitive action control? Evidence for heterogeneity from co-activation-based parcellation. *Cerebral cortex*, 23(11), 2677-2689.
- Colodro-Conde, L., Couvy-Duchesne, B., Whitfield, J. B., & et al. (2018). Association between population density and genetic risk for schizophrenia. *JAMA psychiatry*. doi:10.1001/jamapsychiatry.2018.1581
- Contreras, J. M., Schirmer, J., Banaji, M. R., & Mitchell, J. P. (2013). Common brain regions with distinct patterns of neural responses during mentalizing about groups and individuals. *Journal of cognitive neuroscience*, 25(9), 1406-1417.
- Corcoran, C., Kimhy, D., Parrilla-Escobar, M., Cressman, V., Stanford, A., Thompson, J., . . . Moore, H. (2011). The relationship of social function to depressive and negative symptoms in individuals at clinical high-risk for psychosis. *Psychological medicine*, 41(02), 251-261.
- Corcoran, R., Mercer, G., & Frith, C. D. (1995). Schizophrenia, symptomatology and social inference: investigating "theory of mind" in people with schizophrenia. *Schizophrenia research*, 17(1), 5-13.
- Cornblatt, B. A., Auther, A. M., Niendam, T., Smith, C. W., Zinberg, J., Bearden, C. E., & Cannon, T. D. (2007). Preliminary findings for two new measures of social and role functioning in the prodromal phase of schizophrenia. *Schizophrenia Bulletin*, 33(3), 688-702.
- Couture, S. M., Penn, D. L., & Roberts, D. L. (2006). The functional significance of social cognition in schizophrenia: a review. *Schizophrenia Bulletin*, 32(suppl 1), S44-S63.
- Craig, T. K., Garety, P., Power, P., Rahaman, N., Colbert, S., Fornells-Ambrojo, M., & Dunn, G. (2004). The Lambeth Early Onset (LEO) Team: randomised controlled trial of the effectiveness of specialised care for early psychosis. *Bmj*, 329(7474), 1067.
- Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience*, 13(9), 636-650.
- Crone, E. A., & Güroglu, B. (2013). Development of Emotion and Social Reasoning in Adolescence. *The Oxford Handbook of Cognitive Neuroscience, Volume 2: The Cutting Edges*, 2, 122.
- Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic literature*, 47(2), 448-474.
- Csukly, G., Polgár, P., Tombor, L., Réthelyi, J., & Kéri, S. (2011). Are patients with schizophrenia rational maximizers? Evidence from an ultimatum game study. *Psychiatry research*, 187(1), 11-17.

D

- Das, P., Lagopoulos, J., Coulston, C. M., Henderson, A. F., & Malhi, G. S. (2012). Mentalizing impairment in schizophrenia: a functional MRI study. *Schizophrenia research*, 134(2-3), 158-164.
- Davis, M. (1992). The role of the amygdala in fear and anxiety. *Annual review of neuroscience*, 15(1), 353-375.
- Day-Wilson, K., Jones, D., Southam, E., Cilia, J., & Totterdell, S. (2006). Medial prefrontal cortex volume loss in rats with isolation rearing-induced deficits in prepulse inhibition of acoustic startle. *Neuroscience*, 141(3), 1113-1121.
- De Bellis, M. D., Keshavan, M. S., Beers, S. R., Hall, J., Frustaci, K., Masalehdan, A., . . . Boring, A. M. (2001). Sex Differences in Brain Maturation during Childhood and Adolescence. *Cerebral cortex*, 11(6), 552-557. doi:10.1093/cercor/11.6.552
- De Cremer, D., & Van Lange, P. A. M. (2001). Why prosocials exhibit greater cooperation than proselves: The roles of social responsibility and reciprocity. *European Journal of Personality*, 15(S1), S5-S18.
- Debetto, S., & Markus, H. (2010). The clinical importance of white matter hyperintensities on brain magnetic resonance imaging: systematic review and meta-analysis. *Bmj*, 341, c3666.
- Decety, J. (2011). Dissecting the neural mechanisms mediating empathy. *Emotion Review*, 3(1), 92-108.
- Declerck, C. H., Boone, C., & Emonds, G. (2013). When do people cooperate? The neuroeconomics of prosocial decision making. *Brain and Cognition*, 81(1), 95-117. doi:http://dx.doi.org/10.1016/j.bandc.2012.09.009
- Delgado, M. (2007). Reward-related responses in the human striatum. *Annals of the New York Academy of Sciences*, 1104(1), 70-88.
- Delgado, M., & Dickerson, K. C. (2012). Reward-related learning via multiple memory systems. *Biological Psychiatry*, 72(2), 134-141.
- Delgado, M., Frank, R. H., & Phelps, E. A. (2005). Perceptions of moral character modulate the neural systems of reward during the trust game. *Nature Neuroscience*, 8, 1611-1618.

- Delgado, M., Stenger, V., & Fiez, J. (2004). Motivation-dependent responses in the human caudate nucleus. *Cerebral cortex*, *14*(9), 1022-1030.
- Demjaha, A., Valmaggia, L., Stahl, D., Byrne, M., & McGuire, P. (2010). Disorganization/cognitive and negative symptom dimensions in the at-risk mental state predict subsequent transition to psychosis. *Schizophrenia Bulletin*, *38*(2), 351-359.
- Derks, J. (2015). Adolescent Social Cognition (doctoral dissertation).
- Derks, J., Lee, N. C., & Krabbendam, L. (2014). Adolescent trust and trustworthiness: Role of gender and social value orientation. *Journal of adolescence*, *37*(8), 1379-1386.
- Derks, J., Van Scheppingen, M. A., Lee, N. C., & Krabbendam, L. (2015). Trust and mindreading in adolescents: the moderating role of social value orientation. *Frontiers in psychology*, *6*.
- Derntl, B., Finkelmeyer, A., Voss, B., Eickhoff, S. B., Kellermann, T., Schneider, F., & Habel, U. (2012). Neural correlates of the core facets of empathy in schizophrenia. *Schizophrenia research*, *136*(1-3), 70-81.
- Derntl, B., Michel, T. M., Prempeh, P., Backes, V., Finkelmeyer, A., Schneider, F., & Habel, U. (2015). Empathy in individuals clinically at risk for psychosis: brain and behaviour. *The British Journal of Psychiatry*, *bjp*. bp. 114.159004.
- DeVylder, J. E., Kelleher, I., Lalane, M., Oh, H., Link, B. G., & Koyanagi, A. (2018). Association of urbanicity with psychosis in low-and middle-income countries. *JAMA psychiatry*.
- Dixon, M. L., & Christoff, K. (2014). The lateral prefrontal cortex and complex value-based learning and decision making. *Neuroscience & Biobehavioral Reviews*, *45*, 9-18.
- Dou, K., Wang, Y. J., Li, J. B., Li, J. J., & Nie, Y. G. (2018). Perceiving high social mindfulness during interpersonal interaction promotes cooperative behaviours. *Asian Journal of Social Psychology*, *21*(1-2), 97-106.
- Drukker, M., Krabbendam, L., Driessen, G., & Van Os, J. (2006). Social disadvantage and schizophrenia. *Social psychiatry and psychiatric epidemiology*, *41*(8), 595-604.
- Duerden, E. G., Arsalidou, M., Lee, M., & Taylor, M. J. (2013). Lateralization of affective processing in the insula. *Neuroimage*, *78*, 159-175.
- Dumontheil, I., Apperly, I. A., & Blakemore, S.-J. (2010). Online usage of theory of mind continues to develop in late adolescence. *Developmental Science*, *13*(2), 331-338. doi:10.1111/j.1467-7687.2009.00888.x
- Dumontheil, I., Küster, O., Apperly, I. A., & Blakemore, S.-J. (2010). Taking perspective into account in a communicative task. *Neuroimage*, *52*(4), 1574-1583.
- Dvash, J., Gilam, G., Ben-Ze'ev, A., Hendler, T., & Shamay-Tsoory, S. G. (2010). The envious brain: the neural basis of social comparison. *Human brain mapping*, *31*(11), 1741-1750.
- Dye, C. (2008). Health and urban living. *Science*, *319*(5864), 766-769.

E

- Eagly, A. H. (2009). The his and hers of prosocial behavior: an examination of the social psychology of gender. *American psychologist*, *64*(8), 644.
- Eckel, C. C., & Grossman, P. J. (2008). Men, women and risk aversion: Experimental evidence. *Handbook of experimental economics results*, *1*, 1061-1073.
- Eisenberg, N., Cumberland, A., Guthrie, I. K., Murphy, B. C., & Shepard, S. A. (2005). Age changes in prosocial responding and moral reasoning in adolescence and early adulthood. *Journal of research on adolescence*, *15*(3), 235-260.
- Eisenberg, N., Guthrie, I. K., Cumberland, A., Murphy, B. C., Shepard, S. A., Zhou, Q., & Carlo, G. (2002). Prosocial development in early adulthood: a longitudinal study. *Journal of personality and social psychology*, *82*(6), 993.
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, *302*(5643), 290-292.
- Eklund, A., Nichols, T. E., & Knutsson, H. (2016). Cluster failure: Why fMRI inferences for spatial extent have inflated false-positive rates. *Proceedings of the National Academy of Sciences*, 201602413.
- Euston, D. R., Gruber, A. J., & McNaughton, B. L. (2012). The role of medial prefrontal cortex in memory and decision making. *Neuron*, *76*(6), 1057-1070.

F

- Falk, E. B., Cascio, C. N., O'Donnell, M. B., Carp, J., Tinney, F. J., Bingham, C. R., . . . Simons-Morton, B. G. (2014). Neural responses to exclusion predict susceptibility to social influence. *Journal of Adolescent Health*, *54*(5), S22-S31.

- Fehr, E., & Camerer, C. F. (2007). Social neuroeconomics: the neural circuitry of social preferences. *Trends in Cognitive Sciences*, 11(10), 419-427.
- Fehr, E., Fischbacher, U., & Gächter, S. (2002). Strong reciprocity, human cooperation, and the enforcement of social norms. *Human nature*, 13(1), 1-25.
- FeldmanHall, O., Dunsmoor, J. E., Tompary, A., Hunter, L. E., Todorov, A., & Phelps, E. A. (2018). Stimulus generalization as a mechanism for learning to trust. *Proceedings of the National Academy of Sciences*, 115(7), E1690-E1697.
- Fett, A.-K., Gromann, P., Giampietro, V., Shergill, S., & Krabbendam, L. (2014). Default distrust? An fMRI investigation of the neural development of trust and cooperation. *Social cognitive and affective neuroscience*, 9(4), 395-402.
- Fett, A.-K., Gromann, P., Shergill, S., & Krabbendam, L. (2015). *Trust vs. Paranoia: The Dynamics of Social Interaction in Early and Chronic Psychosis*. Paper presented at the Schizophrenia Bulletin.
- Fett, A.-K., Shergill, S., Gromann, P., Dumontheil, I., Blakemore, S.-J., Yakub, F., & Krabbendam, L. (2014). Trust and social reciprocity in adolescence—a matter of perspective-taking. *Journal of adolescence*, 37(2), 175-184.
- Fett, A.-K., Shergill, S., Joyce, D., Riedl, A., Strobel, M., Gromann, P., & Krabbendam, L. (2012). To trust or not to trust: the dynamics of social interaction in psychosis. *Brain*, 135(3), 976-984.
- Fett, A.-K., Shergill, S., Korver-Nieberg, N., Yakub, F., Gromann, P., & Krabbendam, L. (2016). Learning to trust: trust and attachment in early psychosis. *Psychological medicine*, 46(7), 1437-1447.
- Fett, A.-K., Shergill, S., & Krabbendam, L. (2015). Social neuroscience in psychiatry: unravelling the neural mechanisms of social dysfunction. *Psychological medicine*, 45(6), 1145-1165.
- Fett, A.-K., Viechtbauer, W., Penn, D. L., Van Os, J., & Krabbendam, L. (2011). The relationship between neurocognition and social cognition with functional outcomes in schizophrenia: a meta-analysis. *Neuroscience & Biobehavioral Reviews*, 35(3), 573-588.
- Fletcher, P. C., Happe, F., Frith, U., Baker, S. C., Dolan, R. J., Frackowiak, R. S., & Frith, C. D. (1995). Other minds in the brain: a functional imaging study of “theory of mind” in story comprehension. *Cognition*, 57(2), 109-128.
- Fonken, L. K., Xu, X., Weil, Z. M., Chen, G., Sun, Q., Rajagopalan, S., & Nelson, R. J. (2011). Air pollution impairs cognition, provokes depressive-like behaviors and alters hippocampal cytokine expression and morphology. *Molecular psychiatry*, 16(10), 987-995.
- Forster, S. E., & Brown, J. W. (2011). Medial prefrontal cortex predicts and evaluates the timing of action outcomes. *Neuroimage*, 55(1), 253-265.
- Frissen, A., Lieverse, R., Drukker, M., Delespaul, P., Lataster, T., Myin-Germeys, I., & Van Os, J. (2014). Evidence that childhood urban environment is associated with blunted stress reactivity across groups of patients with psychosis, relatives of patients and controls. *Social psychiatry and psychiatric epidemiology*, 49(10), 1579-1587.
- Frissen, A., Van Os, J., Lieverse, R., Habets, P., Gronenschild, E., & Marcelis, M. (2017). No Evidence of Association between Childhood Urban Environment and Cortical Thinning in Psychotic Disorder. *PLoS ONE*, 12(1), e0166651.
- Friston, K. J., Zarahn, E., Josephs, O., Henson, R., & Dale, A. M. (1999). Stochastic designs in event-related fMRI. *Neuroimage*, 10(5), 607-619.
- Frith, C. D. (2007). The social brain? *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, 362(1480), 671-678.
- Frith, C. D., & Frith, U. (2006). The neural basis of mentalizing. *Neuron*, 50(4), 531-534.
- Frith, U., & Frith, C. D. (2010). The social brain: allowing humans to boldly go where no other species has been. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 365(1537), 165-176.
- Fonagy, P., and Target, M. (2006). The mentalization-focused approach to self pathology. *Journal of personality disorders* 20, 544-576.
- Fusar-Poli, P., Borgwardt, S., Bechdolf, A., Addington, J., Riecher-Rössler, A., Schultze-Lutter, F., . . . Seidman, L. J. (2013). The Psychosis High-Risk State: A Comprehensive State-of-the-Art Review. *JAMA psychiatry*, 70(1), 107.
- Fusar-Poli, P., Broome, M. R., Matthiasson, P., Woolley, J. B., Johns, L., Tabraham, P., . . . McGuire, P. (2010). Spatial working memory in individuals at high risk for psychosis: longitudinal fMRI study. *Schizophrenia research*, 123(1), 45-52.
- Fusar-Poli, P., Broome, M. R., Woolley, J. B., Johns, L. C., Tabraham, P., Bramon, E., . . . McGuire, P. (2011). Altered brain function directly related to structural abnormalities in people at ultra high risk of psychosis: longitudinal VBM-fMRI study. *Journal of psychiatric research*, 45(2), 190-198.

- Fusar-Poli, P., Byrne, M., Valmaggia, L., Day, F., Tabraham, P., Johns, L., . . . Team, O. (2010). Social dysfunction predicts two years clinical outcome in people at ultra high risk for psychosis. *Journal of psychiatric research, 44*(5), 294-301.
- Fusar-Poli, P., Nelson, B., Valmaggia, L., Yung, A. R., & McGuire, P. K. (2014). Comorbid depressive and anxiety disorders in 509 individuals with an at-risk mental state: impact on psychopathology and transition to psychosis. *Schizophrenia Bulletin, 40*(1), 120-131.

G

- Gallagher, H. L., & Frith, C. D. (2003). Functional imaging of 'theory of mind'. *Trends in Cognitive Sciences, 7*(2), 77-83.
- Galvan, A. (2010). Adolescent development of the reward system. *Frontiers in Human Neuroscience, 4*, 116-124.
- Giuliano, A. J., Li, H., I Mesholam-Gately, R., M Sorenson, S., A Woodberry, K., & J Seidman, L. (2012). Neurocognition in the psychosis risk syndrome: a quantitative and qualitative review. *Current pharmaceutical design, 18*(4), 399-415.
- Gold, J. M., Waltz, J. A., Matveeva, T. M., Kasanova, Z., Strauss, G. P., Herbener, E. S., . . . Frank, M. J. (2012). Negative symptoms and the failure to represent the expected reward value of actions: behavioral and computational modeling evidence. *Archives of general psychiatry, 69*(2), 129-138.
- Gold, J. M., Waltz, J. A., Prentice, K. J., Morris, S. E., & Heerey, E. A. (2008). Reward processing in schizophrenia: a deficit in the representation of value. *Schizophrenia Bulletin, 34*(5), 835-847.
- Goldin, P. R., McRae, K., Ramel, W., & Gross, J. J. (2008). The neural bases of emotion regulation: reappraisal and suppression of negative emotion. *Biological Psychiatry, 63*(6), 577-586.
- Goldman, H. H., Skodol, A. E., & Lave, T. R. (1992). Revising axis V for DSM-IV: a review of measures of social functioning. *Am J Psychiatry, 149*(9), 1148-1156.
- Gouin, M., Flamant, C., Gascoin, G., Rouger, V., Florin, A., Guimard, P., . . . Hanf, M. (2015). The association of urbanicity with cognitive development at five years of age in preterm children. *PLoS ONE, 10*(7), e0131749.
- Gradin, V. B., Waiter, G., Kumar, P., Stickle, C., Milders, M., Matthews, K., . . . Steele, J. D. (2012). Abnormal neural responses to social exclusion in schizophrenia. *PLoS ONE, 7*(8), e42608.
- Grahn, J. A., Parkinson, J. A., & Owen, A. M. (2008). The cognitive functions of the caudate nucleus. *Progress in neurobiology, 86*(3), 141-155.
- Grandjean, P., & Landrigan, P. J. (2014). Neurobehavioural effects of developmental toxicity. *The Lancet Neurology, 13*(3), 330-338. doi:[https://doi.org/10.1016/S1474-4422\(13\)70278-3](https://doi.org/10.1016/S1474-4422(13)70278-3)
- Green, M. F., Bearden, C. E., Cannon, T. D., Fiske, A. P., Helleman, G. S., Horan, W. P., . . . Sergi, M. J. (2011). Social cognition in schizophrenia, part 1: performance across phase of illness. *Schizophrenia Bulletin, sbq171*.
- Green, M. F., Horan, W. P., & Lee, J. (2015). Social cognition in schizophrenia. *Nature Reviews Neuroscience, 16*(10), 620.
- Green, M. F., & Leitman, D. I. (2008). Social cognition in schizophrenia. *Schizophrenia Bulletin, 34*(4), 670-672.
- Green, M. F., Olivier, B., Crawley, J., Penn, D., & Silverstein, S. (2005). Social cognition in schizophrenia: recommendations from the MATRICS New Approaches Conference. *Schizophr Bull, 31*, 882-887.
- Green, M. F., Penn, D. L., Bentall, R., Carpenter, W. T., Gaebel, W., Gur, R. C., . . . Heinsen, R. (2008). Social cognition in schizophrenia: an NIMH workshop on definitions, assessment, and research opportunities. *Schizophrenia Bulletin, 34*(6), 1211-1220.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science, 293*(5537), 2105-2108.
- Gromann, P., Heslenfeld, D., Fett, A.-K., Joyce, D., Shergill, S., & Krabbendam, L. (2013). Trust versus paranoia: abnormal response to social reward in psychotic illness. *Brain, awt076*.
- Gromann, P., Shergill, S., de Haan, L., Meewis, D., Fett, A.-K., Korver-Nieberg, N., & Krabbendam, L. (2014). Reduced brain reward response during cooperation in first-degree relatives of patients with psychosis: an fMRI study. *Psychological medicine, 44*(16), 3445-3454.
- Guala, F., & Mittone, L. (2010). Paradigmatic experiments: the dictator game. *The Journal of Socio-Economics, 39*(5), 578-584.
- Güroğlu, B., Van den Bos, W., Rombouts, S. A., & Crone, E. A. (2010). Unfair? It depends: neural correlates of fairness in social context. *Social cognitive and affective neuroscience, nsq013*.
- Güth, W., Schmittberger, R., & Schwarze, B. (1982). An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization, 3*(4), 367-388.

H

- Haber, S. N., & Knutson, B. (2010). The reward circuit: linking primate anatomy and human imaging. *Neuropsychopharmacology*, 35(1), 4-26.
- Hackel, L. M., Doll, B. B., & Amodio, D. M. (2015). Instrumental learning of traits versus rewards: dissociable neural correlates and effects on choice. *Nature Neuroscience*.
- Haddad, L., Schäfer, A., Streit, F., Lederbogen, F., Grimm, O., Wüst, S., . . . Meyer-Lindenberg, A. (2014). Brain structure correlates of urban upbringing, an environmental risk factor for schizophrenia. *Schizophrenia Bulletin*, sbu072.
- Hanssen, M., Bak, M., Bijl, R., Vollebergh, W., & Os, J. (2005). The incidence and outcome of subclinical psychotic experiences in the general population. *British Journal of Clinical Psychology*, 44(2), 181-191.
- Hare, T. A., Camerer, C. F., & Rangel, A. (2009). Self-control in decision-making involves modulation of the vmPFC valuation system. *Science*, 324(5927), 646-648.
- Hare, T. A., O'Doherty, J., Camerer, C. F., Schultz, W., & Rangel, A. (2008). Dissociating the role of the orbitofrontal cortex and the striatum in the computation of goal values and prediction errors. *The Journal of Neuroscience*, 28(22), 5623-5630.
- Harris, M. G., Henry, L. P., Harrigan, S. M., Purcell, R., Schwartz, O. S., Farrelly, S. E., . . . McGorry, P. D. (2005). The relationship between duration of untreated psychosis and outcome: an eight-year prospective study. *Schizophrenia research*, 79(1), 85-93.
- Haruno, M., & Frith, C. D. (2010). Activity in the amygdala elicited by unfair divisions predicts social value orientation. *Nature Neuroscience*, 13(2), 160-161.
- Haruno, M., Kuroda, T., Doya, K., Toyama, K., Kimura, M., Samejima, K., . . . Kawato, M. (2004). A neural correlate of reward-based behavioral learning in caudate nucleus: a functional magnetic resonance imaging study of a stochastic decision task. *The Journal of Neuroscience*, 24(7), 1660-1665.
- Haselhuhn, M. P., Kennedy, J. A., Kray, L. J., Van Zant, A. B., & Schweitzer, M. E. (2015). Gender differences in trust dynamics: Women trust more than men following a trust violation. *Journal of Experimental Social Psychology*, 56, 104-109.
- Hasler, G. (2012). Can the neuroeconomics revolution revolutionize psychiatry? *Neuroscience & Biobehavioral Reviews*, 36(1), 64-78.
- Heinz, A., Deserno, L., & Reininghaus, U. (2013). Urbanicity, social adversity and psychosis. *World Psychiatry*, 12(3), 187-197.
- Heinz, A., & Schlagenhauf, F. (2010). Dopaminergic dysfunction in schizophrenia: salience attribution revisited. *Schizophrenia Bulletin*, 36(3), 472-485.
- Hertwig, R., & Ortmann, A. (2001). Experimental practices in economics: A methodological challenge for psychologists? *Behavioral and Brain Sciences*, 24(03), 383-403.
- Higgins, E. T., & Scholer, A. A. (2009). Engaging the consumer: The science and art of the value creation process. *Journal of Consumer Psychology*, 19(2), 100-114.
- Hofman, P., Krabbendam, L., Vuurman, E., Honig, A., & Jolles, J. (2000). Schizophrenic patients are characterized by white matter hyperintensities, a controlled study. *Brain imaging in mild traumatic brain injury and neuropsychiatric disorders: a quantitative MRI study*, dissertation 113-119.
- Horat, S. K., Favre, G., Prévot, A., Ventura, J., Herrmann, F. R., Gothuey, I., . . . Missonnier, P. (2017). Impaired social cognition in schizophrenia during the Ultimatum Game: An EEG study. *Schizophrenia research*.
- Huettel, S. A., Song, A. W., & McCarthy, G. (2004). *Functional magnetic resonance imaging* (Vol. 1): Sinauer Associates Sunderland, MA.

I

- Insel, C., Reinen, J., Weber, J., Wager, T. D., Jarskog, L. F., Shohamy, D., & Smith, E. E. (2014). Antipsychotic dose modulates behavioral and neural responses to feedback during reinforcement learning in schizophrenia. *Cognitive, Affective, & Behavioral Neuroscience*, 14(1), 189-201.
- Ising, H. K., Kraan, T. C., Rietdijk, J., Dragt, S., Klaassen, R. M., Boonstra, N., . . . Linszen, D. H. (2016). Four-year follow-up of cognitive behavioral therapy in persons at ultra-high risk for developing psychosis: the Dutch early detection intervention evaluation (EDIE-NL) trial. *Schizophrenia Bulletin*, 42(5), 1243-1252.

J

- Jackson, C., Knott, C., Skeate, A., & Birchwood, M. (2004). The trauma of first episode psychosis: the role of cognitive mediation. *Australian and New Zealand Journal of Psychiatry*, 38(5), 327-333.

- Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explication. *Psychiatric services*, 52(4), 482-485.
- Jang, J. H., Shin, N. Y., Shim, G., Park, H. Y., Kim, E., Jang, G.-E., . . . Kwon, J. S. (2011). Longitudinal patterns of social functioning and conversion to psychosis in subjects at ultra-high risk. *Australian and New Zealand Journal of Psychiatry*, 45(9), 763-770.
- Jiang, Y., & Kanwisher, N. (2003). Common neural substrates for response selection across modalities and mapping paradigms. *Journal of cognitive neuroscience*, 15(8), 1080-1094.
- Johns, L. C., & Van Os, J. (2001). The continuity of psychotic experiences in the general population. *Clinical psychology review*, 21(8), 1125-1141.
- Johnson, N. D., & Mislin, A. A. (2011). Trust games: A meta-analysis. *Journal of Economic Psychology*, 32(5), 865-889.
- Juckel, G., Friedel, E., Koslowski, M., Witthaus, H., Özgürdal, S., Gudlowski, Y., . . . Heinz, A. (2012). Ventral striatal activation during reward processing in subjects with ultra-high risk for schizophrenia. *Neuropsychobiology*, 66(1), 50-56.
- Juckel, G., Schlagenhauf, F., Koslowski, M., Filonov, D., Wüstenberg, T., Villringer, A., . . . Wrase, J. (2006). Dysfunction of ventral striatal reward prediction in schizophrenic patients treated with typical, not atypical, neuroleptics. *Psychopharmacology*, 187(2), 222-228.

K

- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1986). Fairness and the assumptions of economics. *Journal of business*, 5285-5300.
- Kapur, S. (2003). Psychosis as a state of aberrant salience: a framework linking biology, phenomenology, and pharmacology in schizophrenia. *American Journal of Psychiatry*, 160(1), 13-23.
- Kay, S., Fiszbein, A., & Opler, L. (1987). The positive and negative syndrome scale (PANSS) for schizophrenia. *Schizophrenia Bulletin*, 13(2), 261.
- Kelleher, I., Keeley, H., Corcoran, P., Lynch, F., Fitzpatrick, C., Devlin, N., . . . Harley, M. (2012). Clinicopathological significance of psychotic experiences in non-psychotic young people: evidence from four population-based studies. *The British Journal of Psychiatry*, 201(1), 26-32.
- Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustun, T. B. (2007). Age of onset of mental disorders: a review of recent literature. *Current Opinion in Psychiatry*, 20(4), 359.
- Killingback, T., & Doebeli, M. (2002). The continuous prisoner's dilemma and the evolution of cooperation through reciprocal altruism with variable investment. *The American Naturalist*, 160(4), 421-438.
- Kim, T.-H., Jeong, G.-W., Baek, H.-S., Kim, G.-W., Sundaram, T., Kang, H.-K., . . . Song, J.-K. (2010). Human brain activation in response to visual stimulation with rural and urban scenery pictures: A functional magnetic resonance imaging study. *Science of the total environment*, 408(12), 2600-2607.
- King-Casas, B., Sharp, C., Lomax-Bream, L., Lohrenz, T., Fonagy, P., & Montague, P. R. (2008). The rupture and repair of cooperation in borderline personality disorder. *Science*, 321, 806-810.
- King-Casas, B., Tomlin, D., Anen, C., Camerer, C. F., Quartz, S. R., & Montague, P. R. (2005). Getting to know you: reputation and trust in a two-person economic exchange. *Science*, 308(5718), 78-83.
- King, M. V., Seeman, P., Marsden, C. A., & Fone, K. C. (2009). Increased dopamine D₂ receptors in rats reared in social isolation. *Synapse*, 63(6), 476-483.
- Kirkbride, J. B., Boydell, J., Ploubidis, G., Morgan, C., Dazzan, P., McKenzie, K., . . . Jones, P. B. (2008). Testing the association between the incidence of schizophrenia and social capital in an urban area. *Psychological medicine*, 38(8), 1083-1094.
- Kirkbride, J. B., Morgan, C., Fearon, P., Dazzan, P., Murray, R. M., & Jones, P. B. (2007). Neighbourhood-level effects on psychoses: re-examining the role of context. *Psychological medicine*, 37(10), 1413-1425.
- Kishida, K. T., King-Casas, B., & Montague, P. R. (2010). Neuroeconomic approaches to mental disorders. *Neuron*, 67(4), 543-554.
- Kliuchko, M., Heinonen-Guzejev, M., Vuust, P., Tervaniemi, M., & Brattico, E. (2016). A window into the brain mechanisms associated with noise sensitivity. *Scientific Reports*, 6, 39236.
- Knoch, D., Pascual-Leone, A., Meyer, K., Treyer, V., & Fehr, E. (2006). Diminishing reciprocal fairness by disrupting the right prefrontal cortex. *Science*, 314(5800), 829-832.
- Knutson, B., Adams, C. M., Fong, G. W., & Hommer, D. (2001). Anticipation of increasing monetary reward selectively recruits nucleus accumbens. *J Neurosci*, 21(16), RC159.
- Knutson, B., & Cooper, J. C. (2005). Functional magnetic resonance imaging of reward prediction. *Current opinion in neurology*, 18(4), 411-417.

- Knutson, B., Fong, G. W., Bennett, S. M., Adams, C. M., & Hommer, D. (2003). A region of mesial prefrontal cortex tracks monetarily rewarding outcomes: characterization with rapid event-related fMRI. *Neuroimage*, *18*(2), 263-272.
- Korte, C. (1980). Urban-Nonurban Differences in Social Behavior and Social Psychological Models of Urban Impact. *Journal of social issues*, *36*(3), 29-51.
- Krabbendam, L., & Van Os, J. (2005). Schizophrenia and urbanicity: a major environmental influence—conditional on genetic risk. *Schizophrenia Bulletin*, *31*(4), 795-799.
- Krach, S., Paulus, F. M., Bodden, M., & Kircher, T. (2010). The rewarding nature of social interactions. *Frontiers in behavioral neuroscience*, *4*, 22.
- Krämer, B., Diekhof, E. K., & Gruber, O. (2017). Effects of city living on the mesolimbic reward system—An fmri study. *Human brain mapping*, *38*(7), 3444-3453.
- Krueger, F. (2008). The neural correlates of economic game playing. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *363*, 3859-3874.
- Krueger, F., McCabe, K., Moll, J., Kriegeskorte, N., Zahn, R., Strenziok, M., . . . Grafman, J. (2007). Neural correlates of trust. *Proceedings of the National Academy of Sciences*, *104*(50), 20084-20089.
- Kuo, M. (2015). How might contact with nature promote human health? Promising mechanisms and a possible central pathway. *Frontiers in psychology*, *6*.

L

- Lambert, K. G., Nelson, R. J., Jovanovic, T., & Cerdá, M. (2015). Brains in the city: neurobiological effects of urbanization. *Neuroscience & Biobehavioral Reviews*, *58*, 107-122.
- Laursen, T. M., Munk-Olsen, T., Nordentoft, M., & Bo, M. P. (2007). A comparison of selected risk factors for unipolar depressive disorder, bipolar affective disorder, schizoaffective disorder, and schizophrenia from a danish population-based cohort. *The Journal of clinical psychiatry*, *68*(11), 1673-1681.
- Lavoie, M.-A., Lacroix, J. B., Godmaire-Duhaime, F., Jackson, P. L., & Achim, A. M. (2013). Social cognition in first-degree relatives of people with schizophrenia: a meta-analysis. *Psychiatry research*, *209*(2), 129-135.
- Lederbogen, F., Haddad, L., & Meyer-Lindenberg, A. (2013). Urban social stress—risk factor for mental disorders. The case of schizophrenia. *Environmental pollution*, *183*, 2-6.
- Lederbogen, F., Kirsch, P., Haddad, L., Streit, F., Tost, H., Schuch, P., . . . Deuschle, M. (2011). City living and urban upbringing affect neural social stress processing in humans. *Nature*, *474*(7352), 498-501.
- LeDoux, J. E. (2000). Emotion circuits in the brain. *Annual review of neuroscience*, *23*(1), 155-184.
- Lee, J., Quintana, J., Nori, P., & Green, M. F. (2011). Theory of mind in schizophrenia: exploring neural mechanisms of belief attribution. *Social neuroscience*, *6*(5-6), 569-581.
- Lemmers-Jansen, I. L., Fett, A.-K. J., Hanssen, E., Veltman, D. J., & Krabbendam, L. (2018). Learning to trust: social feedback normalizes trust behavior in first episode psychosis and clinical high-risk. *Psychological medicine*, 1-11.
- Lemmers-Jansen, I. L., Fett, A.-K. J., Veltman, D. J., & Krabbendam, L. (in revision). Trust and the City – linking urban upbringing to neural mechanisms of trust in psychosis.
- Lemmers-Jansen, I. L., Krabbendam, L., Amodio, D. M., Van Doesum, N. J., Veltman, D. J., & Van Lange, P. A. (2018). Giving others the option of choice: An fMRI study on low-cost cooperation. *Neuropsychologia*, *109*, 1-9.
- Lemmers-Jansen, I. L., Krabbendam, L., Veltman, D. J., & Fett, A.-K. J. (2017). Boys vs. girls: Gender differences in the neural development of trust and reciprocity depend on social context. *Developmental cognitive neuroscience*, *25* (2017) 235-245.
- Lenroot, R. K., & Giedd, J. N. (2010). Sex differences in the adolescent brain. *Brain and Cognition*, *72*(1), 46-55.
- Leucht, S., Kane, J.M., Kissling, W., Hamann, J., Etschel, E., and Engel, R.R. (2005). What does the PANSS mean? *Schizophrenia research* *79*, 231-238.
- Levesque, S., Surace, M. J., McDonald, J., & Block, M. L. (2011). Air pollution & the brain: Subchronic diesel exhaust exposure causes neuroinflammation and elevates early markers of neurodegenerative disease. *Journal of neuroinflammation*, *8*(1), 105.
- Li, H., Chan, R. C., McAlonan, G. M., & Gong, Q.-y. (2009). Facial emotion processing in schizophrenia: a meta-analysis of functional neuroimaging data. *Schizophrenia Bulletin*, *36*(5), 1029-1039.
- Li, W., Tol, M. J., Li, M., Miao, W., Jiao, Y., Heinze, H. J., . . . Walter, M. (2014). Regional specificity of sex effects on subcortical volumes across the lifespan in healthy aging. *Human brain mapping*, *35*(1), 238-247.

- Lieberman, V., Samuels, S. M., & Ross, L. (2004). The name of the game: Predictive power of reputations versus situational labels in determining prisoner's dilemma game moves. *Personality and Social Psychology Bulletin*, *30*(9), 1175-1185.
- Lieberman, J. A., Sheitman, B. B., & Kinon, B. J. (1997). Neurochemical sensitization in the pathophysiology of schizophrenia: deficits and dysfunction in neuronal regulation and plasticity. *Neuropsychopharmacology*, *17*(4), 205-229.
- Lieberman, M. D. (2007). Social cognitive neuroscience: a review of core processes. *Annu. Rev. Psychol.*, *58*, 259-289.
- Linszen, D., Becker, H., Dragt, S., Klaasen, R., De Koning, M., & Velthorst, E. (2011). Classificatie en diagnostiek. In W. Cahn, L. Krabbendam, I. Myin-Germeys, R. Bruggeman, & L. De Haan (Eds.), *Handboek Schizofrenie* (pp. 73-99). Utrecht: De Tijdstroom.
- Locey, M. L., Jones, B. A., & Rachlin, H. (2011). Real and hypothetical rewards. *Judgment and decision making*, *6*(6), 552.
- Lutz, K., & Widmer, M. (2014). What can the monetary incentive delay task tell us about the neural processing of reward and punishment. *Neurosci. Neuroeconom*, *3*, 33-45.
- Lynn, M. (1991). Scarcity effects on value: A quantitative review of the commodity theory literature. *Psychology & Marketing*, *8*(1), 43-57.
- Lysaker, P. H., Roe, D., & Yanos, P. T. (2006). Toward understanding the insight paradox: internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. *Schizophrenia Bulletin*, *33*(1), 192-199.

M

- Maas, J., Verheij, R. A., Groenewegen, P. P., De Vries, S., & Spreeuwenberg, P. (2006). Green space, urbanity, and health: how strong is the relation? *Journal of Epidemiology & Community Health*, *60*(7), 587-592.
- MacDonald, A. W., Cohen, J. D., Stenger, V. A., & Carter, C. S. (2000). Dissociating the role of the dorsolateral prefrontal and anterior cingulate cortex in cognitive control. *Science*, *288*(5472), 1835-1838.
- Madden, G. J., Begotka, A. M., Raiff, B. R., & Kastern, L. L. (2003). Delay discounting of real and hypothetical rewards. *Experimental and clinical psychopharmacology*, *11*(2), 139.
- Magson, N. R., Craven, R. G., & Bodkin-Andrews, G. H. (2014). Measuring Social Capital: The Development of the Social Capital and Cohesion Scale and the Associations between Social Capital and Mental Health. *Australian Journal of Educational & Developmental Psychology*, *14*, 202-216.
- Marcelis, M., Takei, N., & Van Os, J. (1999). Urbanization and risk for schizophrenia: does the effect operate before or around the time of illness onset? *Psychological medicine*, *29*(05), 1197-1203.
- Marjoram, D., Job, D. E., Whalley, H. C., Gountouna, V.-E., McIntosh, A. M., Simonotto, E., . . . Lawrie, S. (2006). A visual joke fMRI investigation into Theory of Mind and enhanced risk of schizophrenia. *Neuroimage*, *31*(4), 1850-1858.
- Marshall, M., Lewis, S., Lockwood, A., Drake, R., Jones, P., & Croudace, T. (2005). Association between duration of untreated psychosis and outcome in cohorts of first-episode patients: a systematic review. *Archives of general psychiatry*, *62*(9), 975-983.
- Marwick, K., & Hall, J. (2008). Social cognition in schizophrenia: a review of face processing. *British Medical Bulletin*, *88*(1), 43-58.
- 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. *Social cognitive and affective neuroscience*, *4*(2), 143-157.
- McCleery, A., Horan, W. P., & Green, M. F. (2014). Social Cognition During the Early Phase of Schizophrenia. *Social Cognition and Metacognition in Schizophrenia*, 49.
- McClure, E. B., Monk, C. S., Nelson, E. E., Zarahn, E., Leibenluft, E., Bilder, R. M., . . . Pine, D. S. (2004). A developmental examination of gender differences in brain engagement during evaluation of threat. *Biological Psychiatry*, *55*(11), 1047-1055.
- McGinty, V. B., & Grace, A. A. (2007). Selective activation of medial prefrontal-to-accumbens projection neurons by amygdala stimulation and Pavlovian conditioned stimuli. *Cerebral cortex*, *18*(8), 1961-1972.
- McGorry, P., & Van Os, J. (2013). Redeeming diagnosis in psychiatry: timing versus specificity. *The Lancet*, *381*(9863), 343-345.
- McKenzie, K., Murray, A., & Booth, T. (2013). Do urban environments increase the risk of anxiety, depression and psychosis? An epidemiological study. *Journal of affective disorders*, *150*(3), 1019-1024.

- Menon, V., & Uddin, L. Q. (2010). Saliency, switching, attention and control: a network model of insula function. *Brain Structure and Function*, 214(5-6), 655-667.
- Meyer-Lindenberg, A., & Tost, H. (2012). Neural mechanisms of social risk for psychiatric disorders. *Nature Neuroscience*, 15(5), 663-668.
- Meyer, E. C., Carrión, R. E., Cornblatt, B. A., Addington, J., Cadenhead, K. S., Cannon, T. D., . . . Walker, E. F. (2014). The relationship of neurocognition and negative symptoms to social and role functioning over time in individuals at clinical high-risk in the first phase of the North American Prodrome Longitudinal Study. *Schizophrenia Bulletin*, 40(6), 1452-1461.
- Michail, M., & Birchwood, M. (2009). Social anxiety disorder in first-episode psychosis: incidence, phenomenology and relationship with paranoia. *The British Journal of Psychiatry*, 195(3), 234-241.
- Mier, D., Lis, S., Zygodnik, K., Sauer, C., Ulferts, J., Gallhofer, B., & Kirsch, P. (2014). Evidence for altered amygdala activation in schizophrenia in an adaptive emotion recognition task. *Psychiatry Research: Neuroimaging*, 221(3), 195-203.
- Milev, P., Ho, B.-C., Arndt, S., & Andreasen, N. C. (2005). Predictive values of neurocognition and negative symptoms on functional outcome in schizophrenia: a longitudinal first-episode study with 7-year follow-up. *American Journal of Psychiatry*, 162(3), 495-506.
- Milham, M., Banich, M., Claus, E., & Cohen, N. (2003). Practice-related effects demonstrate complementary roles of anterior cingulate and prefrontal cortices in attentional control. *Neuroimage*, 18, 483-493.
- Mischkowski, D., Thielmann, I., & Glöckner, A. (2017). Think it through before making a choice? Processing mode does not influence social mindfulness. *Journal of Experimental Social Psychology*, 74, 85-97.
- Mitchell, D. G., Luo, Q., Avny, S. B., Kasprzycki, T., Gupta, K., Chen, G., . . . Blair, R. J. R. (2009). Adapting to dynamic stimulus-response values: differential contributions of inferior frontal, dorsomedial, and dorsolateral regions of prefrontal cortex to decision making. *The Journal of Neuroscience*, 29(35), 10827-10834.
- Modinos, G., Allen, P., Frascarelli, M., Tognin, S., Valmaggia, L., Xenaki, L., . . . Woolley, J. (2014). Are we really mapping psychosis risk? Neuroanatomical signature of affective disorders in subjects at ultra high risk. *Psychological medicine*, 44(16), 3491-3501.
- Möller, H.-J., Llorca, P.-M., Sacchetti, E., Martin, S. D., Medori, R., Parellada, E., & Group, S. S. (2005). Efficacy and safety of direct transition to risperidone long-acting injectable in patients treated with various antipsychotic therapies. *International clinical psychopharmacology*, 20(3), 121-130.
- Morey, R. A., Inan, S., Mitchell, T. V., Perkins, D. O., Lieberman, J. A., & Belger, A. (2005). Imaging frontostriatal function in ultra-high-risk, early, and chronic schizophrenia during executive processing. *Archives of general psychiatry*, 62(3), 254-262.
- Moritz, S., Berna, F., Jaeger, S., Westermann, S., & Nagel, M. (2017). The customer is always right? Subjective target symptoms and treatment preferences in patients with psychosis. *European archives of psychiatry and clinical neuroscience*, 267(4), 335-339.
- Morosini, P., Magliano, L., Brambilla, L., Ugolini, S., & Pioli, R. (2000). Development, reliability and acceptability of a new version of the DSM-IV Social and Occupational Functioning Assessment Scale (SOFAS) to assess routine social functioning. *Acta Psychiatrica Scandinavica*, 101(4), 323-329.
- Morrison, A. P., French, P., Stewart, S. L., Birchwood, M., Fowler, D., Gumley, A. I., . . . Murray, G. K. (2012). Early detection and intervention evaluation for people at risk of psychosis: multisite randomised controlled trial. *Bmj*, 344, e2233.
- Mortensen, P. B., Pedersen, C. B., Westergaard, T., Wohlfahrt, J., Ewald, H., Mors, O., . . . Melbye, M. (1999). Effects of family history and place and season of birth on the risk of schizophrenia. *New England Journal of Medicine*, 340(8), 603-608.
- Mothersill, O., Morris, D. W., Kelly, S., Rose, E. J., Bokde, A., Reilly, R., . . . Donohoe, G. (2014). Altered medial prefrontal activity during dynamic face processing in schizophrenia spectrum patients. *Schizophrenia research*, 157(1-3), 225-230.
- Murray, G., Corlett, P., Clark, L., Pessiglione, M., Blackwell, A., Honey, G., . . . Fletcher, P. (2008). Substantia nigra/ventral tegmental reward prediction error disruption in psychosis. *Molecular psychiatry* 13, 267.
- Myin-Germeys, I., Delespaul, P., & Van Os, J. (2005). Behavioural sensitization to daily life stress in psychosis. *Psychological medicine*, 35(5), 733-741.

N

- Nelson, B., Yuen, K., & Yung, A. (2011). Ultra high risk (UHR) for psychosis criteria: are there different levels of risk for transition to psychosis? *Schizophrenia research*, 125(1), 62-68.

- 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. *Psychological medicine*, 35(02), 163-174.
- Netherlands, C.B.S. (2014). Kerncijfers Wijken en Buurten.
- Neufang, S., Specht, K., Hausmann, M., Güntürkün, O., Herpertz-Dahlmann, B., Fink, G. R., & Konrad, K. (2009). Sex differences and the impact of steroid hormones on the developing human brain. *Cerebral cortex*, 19(2), 464-473.
- Nielsen, M. O., Rostrup, E., Wulff, S., Bak, N., Broberg, B. V., Lublin, H., . . . Glenthøj, B. (2012). Improvement of brain reward abnormalities by antipsychotic monotherapy in schizophrenia. *Archives of general psychiatry*, 69(12), 1195-1204.
- Niendam, T. A., Bearden, C. E., Zinberg, J., Johnson, J. K., O'Brien, M., & Cannon, T. D. (2007). The course of neurocognition and social functioning in individuals at ultra high risk for psychosis. *Schizophrenia Bulletin*, 33(3), 772-781.

O

- O'donoghue, B., Lyne, J., Renwick, L., Lane, A., Madigan, K., Staines, A., . . . Clarke, M. (2016). Neighbourhood characteristics and the incidence of first-episode psychosis and duration of untreated psychosis. *Psychological medicine*, 46(07), 1367-1378.

P

- Parks, C. D., Joireman, J., & Van Lange, P. A. M. (2013). Cooperation, trust, and antagonism how public goods are promoted. *Psychological Science in the Public Interest*, 14(3), 119-165.
- Paton, J. J., Belova, M. A., Morrison, S. E., & Salzman, C. D. (2006). The primate amygdala represents the positive and negative value of visual stimuli during learning. *Nature*, 439(7078), 865.
- Paulus, M. P., Hozack, N., Frank, L., & Brown, G. G. (2002). Error rate and outcome predictability affect neural activation in prefrontal cortex and anterior cingulate during decision-making. *Neuroimage*, 15(4), 836-846.
- Paus, T., Keshavan, M., & Giedd, J. N. (2008). Why do many psychiatric disorders emerge during adolescence? *Nature Reviews Neuroscience*, 9(12), 947.
- Pedersen, A., Koelkebeck, K., Brandt, M., Wee, M., Kueppers, K. A., Kugel, H., . . . Ohrmann, P. (2012). Theory of mind in patients with schizophrenia: is mentalizing delayed? *Schizophrenia research*, 137(1-3), 224-229.
- Pedersen, C. B., & Mortensen, P. B. (2001). Evidence of a dose-response relationship between urbanicity during upbringing and schizophrenia risk. *Archives of general psychiatry*, 58(11), 1039-1046.
- Pedersen, C. B., & Mortensen, P. B. (2006). Urbanization and traffic related exposures as risk factors for schizophrenia. *BMC psychiatry*, 6(1), 2.
- Peeters, S. C., Gronenschild, E., Van de Ven, V., Habets, P., Goebel, R., Van Os, J., & Marcelis, M. (2015). Altered mesocorticolimbic functional connectivity in psychotic disorder: an analysis of proxy genetic and environmental effects. *Psychological medicine*, 45(10), 2157-2169.
- Peeters, S. C., Van de Ven, V., Gronenschild, E. H. M., Patel, A. X., Habets, P., Goebel, R., . . . Marcelis, M. (2015). Default mode network connectivity as a function of familial and environmental risk for psychotic disorder. *PLoS ONE*, 10(3), e0120030.
- Penn, D. L., Sanna, L. J., & Roberts, D. L. (2008). Social cognition in schizophrenia: an overview. *Schizophrenia Bulletin*, 34(3), 408-411.
- Peysakhovich, A., Nowak, M. A., & Rand, D. G. (2014). Humans display a 'cooperative phenotype' that is domain general and temporally stable. *Nature communications*, 5.
- Phelps, E. A. (2006). Emotion and cognition: insights from studies of the human amygdala. *Annu. Rev. Psychol.*, 57, 27-53.
- Phelps, E. A., Delgado, M. R., Nearing, K. I., & LeDoux, J. E. (2004). Extinction learning in humans: role of the amygdala and vmPFC. *Neuron*, 43(6), 897-905.
- Phillips, L. J., Nelson, B., Yuen, H. P., Francey, S. M., Simmons, M., Stanford, C., . . . Conus, P. (2009). Randomized controlled trial of interventions for young people at ultra-high risk of psychosis: study design and baseline characteristics. *Australian & New Zealand Journal of Psychiatry*, 43(9), 818-829.
- Pinkham, A. E., Penn, D. L., Perkins, D. O., Graham, K. A., & Siegel, M. (2007). Emotion perception and social skill over the course of psychosis: a comparison of individuals "at-risk" for psychosis and individuals with early and chronic schizophrenia spectrum illness. *Cognitive neuropsychiatry*, 12(3), 198-212.
- Poldrack, R. A. (2006). Can cognitive processes be inferred from neuroimaging data? *Trends in Cognitive Sciences*, 10(2), 59-63.

- Poldrack, R. A., Baker, C. I., Durnez, J., Gorgolewski, K., Matthews, P. M., Munafo, M., . . . Yarkoni, T. (2016). Scanning the Horizon: Future challenges for neuroimaging research. *bioRxiv*, 059188.
- Powell, C., & Van Vugt, M. (2003). Genuine giving or selfish sacrifice? The role of commitment and cost level upon willingness to sacrifice. *European Journal of Social Psychology*, *33*(3), 403-412.
- Pujol, J., Martínez-Vilavella, G., Macià, D., Fenoll, R., Alvarez-Pedrerol, M., Rivas, I., . . . Querol, X. (2016). Traffic pollution exposure is associated with altered brain connectivity in school children. *Neuroimage*, *129*, 175-184.
- Pukrop, R., Schultze-Lutter, F., Ruhrmann, S., Brockhaus-Dumke, A., Tendolkar, I., Bechdolf, A., . . . Klosterkötter, J. (2006). Neurocognitive functioning in subjects at risk for a first episode of psychosis compared with first-and multiple-episode schizophrenia. *Journal of Clinical and Experimental Neuropsychology*, *28*(8), 1388-1407.

R

- Rand, D. G., Greene, J. D., & Nowak, M. A. (2012). Spontaneous giving and calculated greed. *Nature*, *489*(7416), 427-430.
- Rand, D. G., & Nowak, M. A. (2013). Human cooperation. *Trends in Cognitive Sciences*, *17*(8), 413-425.
- Ravindran, R., Devi, R. S., Samson, J., & Senthilvelan, M. (2005). Noise-stress-induced brain neurotransmitter changes and the effect of *Ocimum sanctum* (Linn) treatment in albino rats. *Journal of pharmacological sciences*, *98*(4), 354-360.
- Riccardi, I., Stratta, P., & Rossi, A. (2015). When economic theory meets the mind: neuroeconomics as a new approach to psychopathology. *Journal of Psychopathology*, *21*, 141-144.
- Ridderinkhof, K. R., Van den Wildenberg, W. P., Segalowitz, S. J., & Carter, C. S. (2004). Neurocognitive mechanisms of cognitive control: the role of prefrontal cortex in action selection, response inhibition, performance monitoring, and reward-based learning. *Brain and Cognition*, *56*(2), 129-140.
- Riedl, R., Hubert, M., & Kenning, P. (2010). Are there neural gender differences in online trust? An fMRI study on the perceived trustworthiness of eBay offers. *Mis Quarterly*, *34*(2), 397-428.
- Rietdijk, J., Klaassen, R., Ising, H., Dragt, S., Nieman, D., Van de Kamp, J., . . . Van der Gaag, M. (2012). Detection of people at risk of developing a first psychosis: comparison of two recruitment strategies. *Acta Psychiatrica Scandinavica*, *126*(1), 21-30.
- Rilling, J. K., Glenn, A. L., Jairam, M. R., Pagnoni, G., Goldsmith, D. R., Elfenbein, H. A., & Lilienfeld, S. O. (2007). Neural Correlates of Social Cooperation and Non-Cooperation as a Function of Psychopathy. *Biological Psychiatry*, *61*(11), 1260-1271. doi:http://dx.doi.org/10.1016/j.biopsych.2006.07.021
- Rilling, J. K., Gutman, D. A., Zeh, T. R., Pagnoni, G., Berns, G. S., & Kilts, C. D. (2002). A neural basis for social cooperation. *Neuron*, *35*(2), 395-405.
- Rilling, J. K., & Sanfey, A. G. (2011). The neuroscience of social decision-making. *Annual Review of Psychology*, *62*, 23-48.
- Roe, J. J., Aspinall, P. A., Mavros, P., & Coyne, R. (2013). Engaging the brain: the impact of natural versus urban scenes using novel EEG methods in an experimental setting. *Environ Sci*, *1*(2), 93-104.
- Roosendaal, B., McEwen, B. S., & Chattarji, S. (2009). Stress, memory and the amygdala. *Nature reviews Neuroscience*, *10*(6), 423.
- Ruff, C. C., & Fehr, E. (2014). The neurobiology of rewards and values in social decision making. *Nature Reviews Neuroscience*, *15*(8), 549.
- Ruhrmann, S., Schultze-Lutter, F., & Klosterkötter, J. (2010). Probably at-risk, but certainly ill—advocating the introduction of a psychosis spectrum disorder in DSM-V. *Schizophrenia research*, *120*(1), 23-37.
- Rutherford, H. J., Wareham, J. D., Vrouva, I., Mayes, L. C., Fonagy, P., & Potenza, M. N. (2012). Sex differences moderate the relationship between adolescent language and mentalization. *Personality Disorders: Theory, Research, and Treatment*, *3*(4), 393.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68.

S

- Sanfey, A. G., & Chang, L. J. (2008). Multiple systems in decision making. *Annals of the New York Academy of Sciences*, *1128*(1), 53-62.
- Sanfey, A. G., Rilling, J. K., Aronson, J. A., Nystrom, L. E., & Cohen, J. D. (2003). The neural basis of economic decision-making in the ultimatum game. *Science*, *300*(5626), 1755-1758.

- Savale, P. (2014). Effect of noise pollution on human being: Its prevention and control. *European Journal of Environment Research and Development*, 8(4).
- Saxe, R., & Kanwisher, N. (2003). People thinking about thinking people: the role of the temporo-parietal junction in "theory of mind". *Neuroimage*, 19(4), 1835-1842.
- Saxe, R., & Wexler, A. (2005). Making sense of another mind: the role of the right temporo-parietal junction. *Neuropsychologia*, 43(10), 1391-1399.
- Schilbach, L., Derntl, B., Aleman, A., Caspers, S., Clos, M., Diederer, K. M., . . . Sommer, I. E. (2016). Differential patterns of dysconnectivity in mirror neuron and mentalizing networks in schizophrenia. *Schizophrenia Bulletin*, 42(5), 1135-1148.
- Schmidt, A., Smieskova, R., Aston, J., Simon, A., Allen, P., Fusar-Poli, P., . . . Borgwardt, S. (2013). Brain connectivity abnormalities predating the onset of psychosis: correlation with the effect of medication. *JAMA psychiatry*, 70(9), 903-912.
- Schubert, M., Porkess, M., Dashdorj, N., Fone, K., & Auer, D. (2009). Effects of social isolation rearing on the limbic brain: a combined behavioral and magnetic resonance imaging volumetry study in rats. *Neuroscience*, 159(1), 21-30.
- Schurz, M., Radua, J., Aichhorn, M., Richlan, F., & Perner, J. (2014). Fractionating theory of mind: a meta-analysis of functional brain imaging studies. *Neuroscience & Biobehavioral Reviews*, 42, 9-34.
- Seeley, W. W., Menon, V., Schatzberg, A. F., Keller, J., Glover, G. H., Kenna, H., . . . Greicius, M. D. (2007). Dissociable intrinsic connectivity networks for salience processing and executive control. *The Journal of Neuroscience*, 27(9), 2349-2356.
- Seiferth, N. Y., Pauly, K., Habel, U., Kellermann, T., Shah, N. J., Ruhrmann, S., . . . Kircher, T. (2008). Increased neural response related to neutral faces in individuals at risk for psychosis. *Neuroimage*, 40(1), 289-297.
- Selten, J.-P., & Cantor-Graae, E. (2005). Social defeat: risk factor for schizophrenia? *The British Journal of Psychiatry*, 187(2), 101-102.
- Selten, J.-P., Van der Ven, E., Rutten, B. P., & Cantor-Graae, E. (2013). The social defeat hypothesis of schizophrenia: an update. *Schizophrenia Bulletin*, 39(6), 1180-1186.
- Shamay-Tsoory, S. G. (2011). The neural bases for empathy. *The Neuroscientist*, 17(1), 18-24.
- Sharp, C., Monterosso, J., & Montague, P. R. (2012). Neuroeconomics: a bridge for translational research. *Biological Psychiatry*, 72(2), 87-92.
- Shevlin, M., Houston, J. E., Dorahy, M. J., & Adamson, G. (2007). Cumulative traumas and psychosis: an analysis of the national comorbidity survey and the British Psychiatric Morbidity Survey. *Schizophrenia Bulletin*, 34(1), 193-199.
- Shim, G., Kang, D.-H., Sun Chung, Y., Young Yoo, S., Young Shin, N., & Soo Kwon, J. (2008). Social functioning deficits in young people at risk for schizophrenia. *Australian and New Zealand Journal of Psychiatry*, 42(8), 678-685.
- Smieskova, R., Marmy, J., Schmidt, A., Bendfeldt, K., Riecher-Rössler, A., Walter, M., . . . Borgwardt, S. (2013). Do subjects at clinical high-risk for psychosis differ from those with a genetic high risk?—A systematic review of structural and functional brain abnormalities. *Current medicinal chemistry*, 20(3), 467-481.
- Smith, A. R., Chein, J., & Steinberg, L. (2013). Impact of socio-emotional context, brain development, and pubertal maturation on adolescent risk-taking. *Hormones and Behavior*, 64(2), 323-332.
- Snyder, H. R., Miyake, A., & Hankin, B. L. (2015). Advancing understanding of executive function impairments and psychopathology: bridging the gap between clinical and cognitive approaches. *Frontiers in psychology*, 6, 328.
- Song, Y., Liu, Y., Wang, M., Lanaj, K., Johnson, R., & Shi, J. (2017). A Social Mindfulness Approach to Understanding Experienced Customer Mistreatment: A Within-Person Field Experiment. *Academy of Management Journal*, amj. 2016.0448.
- Sowell, E. R., Thompson, P. M., Tessner, K. D., & Toga, A. W. (2001). Mapping continued brain growth and gray matter density reduction in dorsal frontal cortex: Inverse relationships during postadolescent brain maturation. *The Journal of Neuroscience*, 21(22), 8819-8829.
- Spitzer, M., Fischbacher, U., Herrnberger, B., Grön, G., & Fehr, E. (2007). The neural signature of social norm compliance. *Neuron*, 56(1), 185-196.
- SPM. (2009). Statistical Parametric Mapping (Version 8). London, UK: Wellcome Trust Centre for Neuroimaging. Retrieved from www.fil.ion.ucl.ac.uk/spm
- Spreng, R. N., Stevens, W. D., Chamberlain, J. P., Gilmore, A. W., & Schacter, D. L. (2010). Default network activity, coupled with the frontoparietal control network, supports goal-directed cognition. *Neuroimage*, 53(1), 303-317.

- SPSS, I. (2012). IBM SPSS statistics version 21. *Boston, Mass: International Business Machines Corp.*
- Sripada, C. S., Angstadt, M., Banks, S., Nathan, P. J., Liberzon, I., & Phan, K. L. (2009). Functional neuroimaging of mentalizing during the trust game in social anxiety disorder. *Neuroreport*, *20*(11), 984.
- Stansfeld, S. A. (1992). Noise, noise sensitivity and psychiatric disorder: epidemiological and psychophysiological studies. *Psychological medicine monograph supplement*, *22*, 1-44.
- Stansfeld, S. A., & Clark, C. (2015). Health effects of noise exposure in children. *Current environmental health reports*, *2*(2), 171-178.
- StataCorp. (2013). Stata Statistical Software. TX: StataCorp LP.
- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences*, *9*(2), 69-74. doi:10.1016/j.tics.2004.12.005
- Steinberg, L., & Sheffield Morris, A. (2001). Adolescent development. *Annual Review of Psychology*, *52*, 83-110.
- Strauss, G. P., Frank, M. J., Waltz, J. A., Kasonova, Z., Herbener, E. S., & Gold, J. M. (2011). Deficits in positive reinforcement learning and uncertainty-driven exploration are associated with distinct aspects of negative symptoms in schizophrenia. *Biological Psychiatry*, *69*(5), 424-431.
- Strauss, G. P., Waltz, J. A., & Gold, J. M. (2013). A review of reward processing and motivational impairment in schizophrenia. *Schizophrenia Bulletin*, *40*(Suppl_2), S107-S116.
- Streit, F., Haddad, L., Paul, T., Frank, J., Schäfer, A., Nikitopoulos, J., . . . Witt, S. (2014). A functional variant in the neuropeptide S receptor 1 gene moderates the influence of urban upbringing on stress processing in the amygdala. *Stress*, *17*(4), 352-361.
- Sugranyes, G., Kyriakopoulos, M., Corrigall, R., Taylor, E., & Frangou, S. (2011). Autism spectrum disorders and schizophrenia: meta-analysis of the neural correlates of social cognition. *PLoS ONE*, *6*(10), e25322.
- Sundquist, K., Frank, G., & Sundquist, J. (2004). Urbanisation and incidence of psychosis and depression. *The British Journal of Psychiatry*, *184*(4), 293-298.
- Supekar, K., Uddin, L. Q., Prater, K., Amin, H., Greicius, M. D., & Menon, V. (2010). Development of functional and structural connectivity within the default mode network in young children. *Neuroimage*, *52*(1), 290-301.
- Sutter, M., & Kocher, M. G. (2007). Trust and trustworthiness across different age groups. *Games and economic behavior*, *59*(2), 364-382.

T

- Tabibnia, G., & Lieberman, M. D. (2007). Fairness and cooperation are rewarding. *Annals of the New York Academy of Sciences*, *1118*(1), 90-101.
- Takahashi, T., Ikeda, K., Ishikawa, M., Kitamura, N., Tsukasaki, T., Nakama, D., & Kameda, T. (2005). Interpersonal trust and social stress-induced cortisol elevation. *Neuroreport*, *16*(2), 197-199.
- Tamnes, C. K., Østby, Y., Fjell, A. M., Westlye, L. T., Due-Tønnessen, P., & Walhovd, K. B. (2010). Brain maturation in adolescence and young adulthood: regional age-related changes in cortical thickness and white matter volume and microstructure. *Cerebral cortex*, *20*(3), 534-548.
- Tang, J. Y.-M., Chang, W.-C., Hui, C. L.-M., Wong, G. H.-Y., Chan, S. K.-W., Lee, E. H.-M., . . . Chan, W.-F. (2014). Prospective relationship between duration of untreated psychosis and 13-year clinical outcome: a first-episode psychosis study. *Schizophrenia research*, *153*(1), 1-8.
- Tarrier, N., Khan, S., Cater, J., & Picken, A. (2007). The subjective consequences of suffering a first episode psychosis: trauma and suicide behaviour. *Social psychiatry and psychiatric epidemiology*, *42*(1), 29-35.
- Taylor, S. F., Kang, J., Brege, I. S., Tso, I. F., Hosanagar, A., & Johnson, T. D. (2012). Meta-analysis of functional neuroimaging studies of emotion perception and experience in schizophrenia. *Biological Psychiatry*, *71*(2), 136-145.
- Thompson, A. D., Bartholomeusz, C., & Yung, A. R. (2011). Social cognition deficits and the 'ultra high risk' for psychosis population: a review of literature. *Early intervention in psychiatry*, *5*(3), 192-202.
- Thompson, A. D., Papas, A., Bartholomeusz, C., Allott, K., Amminger, G. P., Nelson, B., . . . Yung, A. (2012). Social cognition in clinical "at risk" for psychosis and first episode psychosis populations. *Schizophrenia research*, *141*(2), 204-209.
- Tost, H., Champagne, F. A., & Meyer-Lindenberg, A. (2015). Environmental influence in the brain, human welfare and mental health. *Nature Neuroscience*, *18*(10), 1421-1431.
- Tost, H., & Meyer-Lindenberg, A. (2012). Puzzling over schizophrenia: schizophrenia, social environment and the brain. *Nature medicine*, *18*(2), 211-213.
- Tregellas, J. R., Smucny, J., Eichman, L., & Rojas, D. C. (2012). The effect of distracting noise on the neuronal mechanisms of attention in schizophrenia. *Schizophrenia research*, *142*(1), 230-236.
- Tzieropoulos, H. (2013). The Trust Game in neuroscience: a short review. *Social neuroscience*, *8*(5), 407-416.

U

- Ulrich, R. S. (1981). Natural versus urban scenes: Some psychophysiological effects. *Environment and behavior*, 13(5), 523-556.
- Ulrich, R. S., Simons, R. F., Losito, B. D., Fiorito, E., Miles, M. A., & Zelson, M. (1991). Stress recovery during exposure to natural and urban environments. *Journal of environmental psychology*, 11(3), 201-230.

V

- Valmaggia, L., Stahl, D., Yung, A., Nelson, B., Fusar-Poli, P., McGorry, P., & McGuire, P. (2013). Negative psychotic symptoms and impaired role functioning predict transition outcomes in the at-risk mental state: a latent class cluster analysis study. *Psychological medicine*, 43(11), 2311-2325.
- Van den Berg, A. E., Hartig, T., & Staats, H. (2007). Preference for nature in urbanized societies: Stress, restoration, and the pursuit of sustainability. *Journal of social issues*, 63(1), 79-96.
- Van den Berg, A. E., Jorgensen, A., & Wilson, E. R. (2014). Evaluating restoration in urban green spaces: Does setting type make a difference? *Landscape and Urban Planning*, 127, 173-181.
- Van den Berg, M., Wendel-Vos, W., Van Poppel, M., Kemper, H., Van Mechelen, W., & Maas, J. (2015). Health benefits of green spaces in the living environment: A systematic review of epidemiological studies. *Urban Forestry & Urban Greening*, 14(4), 806-816.
- Van den Bos, W., Van Dijk, E., & Crone, E. A. (2012). Learning whom to trust in repeated social interactions: a developmental perspective. *Group Processes & Intergroup Relations*, 15(2), 243-256.
- Van den Bos, W., Van Dijk, E., Westenberg, M., Rombouts, S. A., & Crone, E. A. (2009). What motivates repayment? Neural correlates of reciprocity in the Trust Game. *Social cognitive and affective neuroscience*, ns009.
- 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. *Psychological Science*, 22(1), 60-70.
- Van den Bos, W., Westenberg, M., Van Dijk, E., & Crone, E. A. (2010). Development of trust and reciprocity in adolescence. *Cognitive Development*, 25(1), 90-102.
- Van der Gaag, M., Nieman, D. H., Rietdijk, J., Dragt, S., Ising, H. K., Klaassen, R. M., . . . Linszen, D. H. (2012). Cognitive behavioral therapy for subjects at ultrahigh risk for developing psychosis: a randomized controlled clinical trial. *Schizophrenia Bulletin*, 38(6), 1180-1188.
- Van der Wal, A. J., Schade, H. M., Krabbendam, L., & Van Vugt, M. (2013). Do natural landscapes reduce future discounting in humans? *Proceedings of the Royal Society of London B: Biological Sciences*, 280(1773), 20132295.
- Van Doesum, N. J., Tybur, J. M., & Van Lange, P. A. M. (2017). Class impressions: Higher social class elicits lower prosociality. *Journal of Experimental Social Psychology*, 68, 11-20.
- Van Doesum, N. J., Van Lange, D. A. W., & Van Lange, P. A. M. (2013). Social mindfulness: Skill and will to navigate the social world. *Journal of personality and social psychology*, 105(1), 86.
- Van Doesum, N. J., Van Prooijen, J. W., Verburgh, L., & Van Lange, P. A. M. (2016). Social Hostility in Soccer and Beyond. *PLoS ONE*, 11(4), e0153577.
- Van Donkersgoed, R., Wunderink, L., Nieboer, R., Aleman, A., & Pijnenborg, G. (2015). Social cognition in individuals at ultra-high risk for psychosis: a meta-analysis. *PLoS ONE*, 10(10), e0141075.
- Van Kleef, G. A., & Van Lange, P. A. M. (2008). What other's disappointment may do to selfish people: Emotion and social value orientation in a negotiation context. *Personality and Social Psychology Bulletin*, 34(8), 1084-1095.
- Van Lange, P. A. M., De Bruin, E., Otten, W., & Joireman, J. A. (1997). Development of prosocial, individualistic, and competitive orientations: theory and preliminary evidence. *Journal of personality and social psychology*, 73(4), 733.
- Van Lange, P. A. M., Klapwijk, A., & Van Munster, L. M. (2011). How the shadow of the future might promote cooperation. *Group Processes & Intergroup Relations*, 1368430211402102.
- Van Lange, P. A. M., & Van Doesum, N. J. (2015). Social mindfulness and social hostility. *Current Opinion in Behavioral Sciences*, 3, 18-24.
- Van Os, J., Kenis, G., & Rutten, B. P. (2010). The environment and schizophrenia. *Nature*, 468(7321), 203.
- Van Os, J., & Linscott, R. J. (2012). Introduction: the extended psychosis phenotype—relationship with schizophrenia and with ultrahigh risk status for psychosis. *Schizophrenia Bulletin*, 38(2), 227-230.
- Van Os, J., Linscott, R. J., Myin-Germeys, I., Delespaul, P., & Krabbendam, L. (2009). A systematic review and meta-analysis of the psychosis continuum: evidence for a psychosis proneness—persistence—impairment model of psychotic disorder. *Psychological medicine*, 39(2), 179-195.

- Van Os, J., & Murray, R. M. (2013). Can we identify and treat "schizophrenia light" to prevent true psychotic illness. *Bmj*, *346*(jan18 1), f304-f304.
- Van Os, J., Pedersen, C. B., & Mortensen, P. B. (2004). Confirmation of synergy between urbanicity and familial liability in the causation of psychosis. *American Journal of Psychiatry*, *161*(12), 2312-2314.
- Van Os, J., & Reininghaus, U. (2016). Psychosis as a transdiagnostic and extended phenotype in the general population. *World Psychiatry*, *15*(2), 118-124.
- Van Overwalle, F. (2009). Social cognition and the brain: a meta-analysis. *Human brain mapping*, *30*(3), 829-858.
- Van Overwalle, F. (2011). A dissociation between social mentalizing and general reasoning. *Neuroimage*, *54*(2), 1589-1599.
- Van Overwalle, F., & Baetens, K. (2009). Understanding others' actions and goals by mirror and mentalizing systems: a meta-analysis. *Neuroimage*, *48*(3), 564-584.
- Van Vugt, M., & Van Lange, P. A. (2006). Psychological adaptations for prosocial behavior: The altruism puzzle. *Evolution and social psychology*, 237-261.
- Van Winkel, R., Stefanis, N. C., & Myin-Germeys, I. (2008). Psychosocial stress and psychosis. A review of the neurobiological mechanisms and the evidence for gene-stress interaction. *Schizophrenia Bulletin*, *34*(6), 1095-1105.
- Varga, E., Simon, M., Tényi, T., Schnell, Z., Hajnal, A., Orsi, G., . . . Füredi, R. (2013). Irony comprehension and context processing in schizophrenia during remission—A functional MRI study. *Brain and language*, *126*(3), 231-242.
- Veling, W., Susser, E., Van Os, J., Mackenbach, J. P., Selten, J.-P., & Hoek, H. W. (2008). Ethnic density of neighborhoods and incidence of psychotic disorders among immigrants. *American Journal of Psychiatry*, *165*(1), 66-73.
- Vellante, M., Baron-Cohen, S., Melis, M., Marrone, M., Petretto, D. R., Masala, C., & Preti, A. (2013). The "Reading the Mind in the Eyes" test: systematic review of psychometric properties and a validation study in Italy. *Cognitive neuropsychiatry*, *18*(4), 326-354.
- Velthorst, E., Fett, A.-K. J., Reichenberg, A., Perlman, G., Van Os, J., Bromet, E. J., & Kotov, R. (2016). The 20-Year Longitudinal Trajectories of Social Functioning in Individuals With Psychotic Disorders. *American Journal of Psychiatry*, appi. ajp. 2016.15111419.
- Velthorst, E., Nieman, D. H., Becker, H. E., Van de Fliert, R., Dingemans, P. M., Klaassen, R., . . . Linszen, D. H. (2009). Baseline differences in clinical symptomatology between ultra high risk subjects with and without a transition to psychosis. *Schizophrenia research*, *109*(1), 60-65.
- Velthorst, E., Reichenberg, A., Kapara, O., Goldberg, S., Fromer, M., Fruchter, E., . . . Weiser, M. (2016). Developmental Trajectories of Impaired Community Functioning in Schizophrenia. *JAMA psychiatry*, *73*(1), 48-55.
- Vincent, J. L., Kahn, I., Snyder, A. Z., Raichle, M. E., & Buckner, R. L. (2008). Evidence for a frontoparietal control system revealed by intrinsic functional connectivity. *Journal of neurophysiology*, *100*(6), 3328-3342.
- Vlaev, I. (2012). How different are real and hypothetical decisions? Overestimation, contrast and assimilation in social interaction. *Journal of Economic Psychology*, *33*(5), 963-972.
- Voges, M., & Addington, J. (2005). The association between social anxiety and social functioning in first episode psychosis. *Schizophrenia research*, *76*(2), 287-292.
- Vrticka, P., Sander, D., & Vuilleumier, P. (2013). Lateralized interactive social content and valence processing within the human amygdala. *Frontiers in Human Neuroscience*, *6*, 358.

W

- Walter, H., Abler, B., Ciaramidaro, A., & Erk, S. (2005). Motivating forces of human actions: Neuroimaging reward and social interaction. *Brain research bulletin*, *67*(5), 368-381.
- Waltz, J. A., Frank, M. J., Wiecki, T. V., & Gold, J. M. (2011). Altered probabilistic learning and response biases in schizophrenia: behavioral evidence and neurocomputational modeling. *Neuropsychology*, *25*(1), 86.
- Waltz, J. A., Schweitzer, J. B., Ross, T. J., Kurup, P. K., Salmeron, B. J., Rose, E. J., . . . Stein, E. A. (2010). Abnormal responses to monetary outcomes in cortex, but not in the basal ganglia, in schizophrenia. *Neuropsychopharmacology*, *35*(12), 2427.
- Wassum, K. M., & Izquierdo, A. (2015). The basolateral amygdala in reward learning and addiction. *Neuroscience & Biobehavioral Reviews*, *57*, 271-283.
- Wechsler, D. (1997). WAIS-III Dutch Translation. In: Lisse: Swets & Zeitlinger.

- Weiser, M., Van Os, J., Reichenberg, A., Rabinowitz, J., Nahon, D., Kravitz, E., . . . Noy, S. (2007). Social and cognitive functioning, urbanicity and risk for schizophrenia. *The British Journal of Psychiatry*, *191*(4), 320-324.
- White, K. J. C., & Guest, A. M. (2003). Community lost or transformed? Urbanization and social ties. *City & Community*, *2*(3), 239-259.
- Wigman, J. T., Van Nierop, M., Vollebergh, W. A., Lieb, R., Beesdo-Baum, K., Wittchen, H.-U., & Van Os, J. (2012). Evidence that psychotic symptoms are prevalent in disorders of anxiety and depression, impacting on illness onset, risk, and severity—implications for diagnosis and ultra-high risk research. *Schizophrenia Bulletin*, *sbr196*.
- Willems, R. M., Van der Haegen, L., Fisher, S. E., & Francks, C. (2014). On the other hand: including left-handers in cognitive neuroscience and neurogenetics. *Nature reviews. Neuroscience*, *15*(3), 193.
- Williams, K. D., Cheung, C. K., & Choi, W. (2000). Cyberostracism: effects of being ignored over the Internet. *Journal of personality and social psychology*, *79*(5), 748.
- Witt, L. A. (1989). Urban-nonurban differences in social cognition: Locus of control and perceptions of a just world. *The Journal of social psychology*, *129*(5), 715-717.
- Wood, S. J., Yung, A. R., McGorry, P. D., & Pantelis, C. (2011). Neuroimaging and treatment evidence for clinical staging in psychotic disorders: from the at-risk mental state to chronic schizophrenia. *Biological Psychiatry*, *70*(7), 619-625.
- Woods, S. W., Addington, J., Cadenhead, K. S., Cannon, T. D., Cornblatt, B. A., Heinssen, R., . . . Walker, E. F. (2009). Validity of the prodromal risk syndrome for first psychosis: findings from the North American Prodrome Longitudinal Study. *Schizophrenia Bulletin*, *35*(5), 894-908.
- Woudstra, S., Van Tol, M.-J., Bochanovits, Z., Van der Wee, N. J., Zitman, F. G., Van Buchem, M. A., . . . Veltman, D. J. (2013). Modulatory effects of the piccolo genotype on emotional memory in health and depression. *PLoS ONE*, *8*(4), e61494.

Y

- Yamagishi, T., Takagishi, H., Fermin, A. d. S. R., Kanai, R., Li, Y., & Matsumoto, Y. (2016). Cortical thickness of the dorsolateral prefrontal cortex predicts strategic choices in economic games. *Proceedings of the National Academy of Sciences*, *113*(20), 5582-5587.
- Yung, A. R., Phillips, L. J., Nelson, B., Francey, S. M., Yuen, H. P., Simmons, M. B., . . . Paul Amminger, G. (2011). Randomized controlled trial of interventions for young people at ultra high risk for psychosis: 6-month analysis. *Journal of Clinical Psychiatry*, *72*(4), 430.
- Yung, A. R., Phillips, L. J., Yuen, H. P., Francey, S. M., McFarlane, C. A., Hallgren, M., & McGorry, P. D. (2003). Psychosis prediction: 12-month follow up of a high-risk ("prodromal") group. *Schizophrenia research*, *60*(1), 21-32.
- Yung, A. R., Woods, S. W., Ruhrmann, S., Addington, J., Schultze-Lutter, F., Cornblatt, B. A., . . . Borgwardt, S. (2012). Whither the attenuated psychosis syndrome? *Schizophrenia Bulletin*, *38*(6), 1130-1134.
- Yung, A. R., Yung, A. R., Pan Yuen, H., McGorry, P. D., Phillips, L. J., Kelly, D., . . . Killackey, E. (2005). Mapping the onset of psychosis: the comprehensive assessment of at-risk mental states. *Australian and New Zealand Journal of Psychiatry*, *39*(11-12), 964-971.

Z

- Zadro, L., Williams, K. D., & Richardson, R. (2004). How low can you go? Ostracism by a computer is sufficient to lower self-reported levels of belonging, control, self-esteem, and meaningful existence. *Journal of Experimental Social Psychology*, *40*(4), 560-567.
- Zammit, S., Lewis, G., Rasbash, J., Dalman, C., Gustafsson, J.-E., & Allebeck, P. (2010). Individuals, schools, and neighborhood: a multilevel longitudinal study of variation in incidence of psychotic disorders. *Archives of general psychiatry*, *67*(9), 914-922.
- Zhu, Y., Zhang, L., Fan, J., & Han, S. (2007). Neural basis of cultural influence on self-representation. *Neuroimage*, *34*(3), 1310-1316.
- Ziauddeen, H., & Murray, G. K. (2010). The relevance of reward pathways for schizophrenia. *Current Opinion in Psychiatry*, *23*(2), 91-96.

- Weiser, M., Van Os, J., Reichenberg, A., Rabinowitz, J., Nahon, D., Kravitz, E., . . . Noy, S. (2007). Social and cognitive functioning, urbanicity and risk for schizophrenia. *The British Journal of Psychiatry*, *191*(4), 320-324.
- White, K. J. C., & Guest, A. M. (2003). Community lost or transformed? Urbanization and social ties. *City & Community*, *2*(3), 239-259.
- Wigman, J. T., Van Nierop, M., Vollebergh, W. A., Lieb, R., Beesdo-Baum, K., Wittchen, H.-U., & Van Os, J. (2012). Evidence that psychotic symptoms are prevalent in disorders of anxiety and depression, impacting on illness onset, risk, and severity—implications for diagnosis and ultra-high risk research. *Schizophrenia Bulletin*, *sbr196*.
- Willems, R. M., Van der Haegen, L., Fisher, S. E., & Francks, C. (2014). On the other hand: including left-handers in cognitive neuroscience and neurogenetics. *Nature reviews. Neuroscience*, *15*(3), 193.
- Williams, K. D., Cheung, C. K., & Choi, W. (2000). Cyberostracism: effects of being ignored over the Internet. *Journal of personality and social psychology*, *79*(5), 748.
- Witt, L. A. (1989). Urban-nonurban differences in social cognition: Locus of control and perceptions of a just world. *The Journal of social psychology*, *129*(5), 715-717.
- Wood, S. J., Yung, A. R., McGorry, P. D., & Pantelis, C. (2011). Neuroimaging and treatment evidence for clinical staging in psychotic disorders: from the at-risk mental state to chronic schizophrenia. *Biological Psychiatry*, *70*(7), 619-625.
- Woods, S. W., Addington, J., Cadenhead, K. S., Cannon, T. D., Cornblatt, B. A., Heinssen, R., . . . Walker, E. F. (2009). Validity of the prodromal risk syndrome for first psychosis: findings from the North American Prodrome Longitudinal Study. *Schizophrenia Bulletin*, *35*(5), 894-908.
- Woudstra, S., Van Tol, M.-J., Bochanovits, Z., Van der Wee, N. J., Zitman, F. G., Van Buchem, M. A., . . . Veltman, D. J. (2013). Modulatory effects of the piccolo genotype on emotional memory in health and depression. *PLoS ONE*, *8*(4), e61494.

Y

- Yamagishi, T., Takagishi, H., Fermin, A. d. S. R., Kanai, R., Li, Y., & Matsumoto, Y. (2016). Cortical thickness of the dorsolateral prefrontal cortex predicts strategic choices in economic games. *Proceedings of the National Academy of Sciences*, *113*(20), 5582-5587.
- Yung, A. R., Phillips, L. J., Nelson, B., Francey, S. M., Yuen, H. P., Simmons, M. B., . . . Paul Amminger, G. (2011). Randomized controlled trial of interventions for young people at ultra high risk for psychosis: 6-month analysis. *Journal of Clinical Psychiatry*, *72*(4), 430.
- Yung, A. R., Phillips, L. J., Yuen, H. P., Francey, S. M., McFarlane, C. A., Hallgren, M., & McGorry, P. D. (2003). Psychosis prediction: 12-month follow up of a high-risk ("prodromal") group. *Schizophrenia research*, *60*(1), 21-32.
- Yung, A. R., Woods, S. W., Ruhrmann, S., Addington, J., Schultze-Lutter, F., Cornblatt, B. A., . . . Borgwardt, S. (2012). Whither the attenuated psychosis syndrome? *Schizophrenia Bulletin*, *38*(6), 1130-1134.
- Yung, A. R., Yung, A. R., Pan Yuen, H., McGorry, P. D., Phillips, L. J., Kelly, D., . . . Killackey, E. (2005). Mapping the onset of psychosis: the comprehensive assessment of at-risk mental states. *Australian and New Zealand Journal of Psychiatry*, *39*(11-12), 964-971.

Z

- Zadro, L., Williams, K. D., & Richardson, R. (2004). How low can you go? Ostracism by a computer is sufficient to lower self-reported levels of belonging, control, self-esteem, and meaningful existence. *Journal of Experimental Social Psychology*, *40*(4), 560-567.
- Zammit, S., Lewis, G., Rasbash, J., Dalman, C., Gustafsson, J.-E., & Allebeck, P. (2010). Individuals, schools, and neighborhood: a multilevel longitudinal study of variation in incidence of psychotic disorders. *Archives of general psychiatry*, *67*(9), 914-922.
- Zhu, Y., Zhang, L., Fan, J., & Han, S. (2007). Neural basis of cultural influence on self-representation. *Neuroimage*, *34*(3), 1310-1316.
- Ziauddeen, H., & Murray, G. K. (2010). The relevance of reward pathways for schizophrenia. *Current Opinion in Psychiatry*, *23*(2), 91-96.

Curriculum Vitae

Imke Jansen was born in 1973 in Leiden, The Netherlands. She graduated from secondary school at the Gymnasium Haganum in The Hague in 1991. After a year abroad, studying viola and learning Spanish in Valencia, Spain, she studied viola at the Royal Conservatory in The Hague, and at the same time Musicology at the University of Utrecht. The combination of these studies was presented as the Akademie voor Muziek, where she graduated in 1998, with a viola recital (Docerend Musicus) and a thesis on the life and music of the Czech composer Gideon Klein (1919-1945). She pursued her musical career studying chamber music, and graduated in 2000. During her studies and later, Imke played as a substitute in several symphony orchestras, and taught violin and viola at Pier K, the music school in Hoofddorp (1997-2012). In 2006, she decided to start a completely different career, studying Educational Sciences at the University of Amsterdam (UvA). She obtained her Master's degree in 2012. Imke wrote her Master's thesis on behaviour and neural activation in siblings of schizophrenia patients during reward anticipation in a monetary incentive delay task under supervision of Lydia Krabbendam at the Vrije Universiteit Amsterdam. Consequently, she was offered a job as research assistant, followed by a position as lecturer-researcher (2013-2017), resulting in this dissertation. Apart from the fMRI study in clinical high-risk and first-episode patients presented in this dissertation, she conducted a diary study (ESM) in the same sample, investigating fluctuations in symptoms and social and situational stress; an online survey on trust and risk factors for psychosis in almost 700 high-school students; and she developed two new modules on trust for the Metacognitive training (MCT) for psychosis, followed by a pilot study on the feasibility and patient acceptance. Imke is still active as a (baroque) viola player in various ensembles; she is member of the MCT platform in the Netherlands, and gives lectures and trainings to medical staff about MCT implementation. At present she works as a post-doctoral researcher at the department of clinical developmental psychology at the Vrije Universiteit, for Anja Huizink.

List of publications

Publications

- **Lemmers-Jansen, I.L.J.**, Fett, A.-K.J., Hanssen, E., Veltman, D.J., Krabbendam, L. (2018) Learning to trust: Social feedback normalizes trust behaviour in first episode psychosis and clinical high-risk. *Psychological Medicine*, 1-11.
- **Lemmers-Jansen, I.L.J.**, Krabbendam, L., Amodio, D.M., Van Doesum, N.J., Veltman, D.J., & Van Lange, P.A.M. (2018). Giving Others the Option of Choice: An fMRI Study on Low-Cost Cooperation. *Neuropsychologia*, 109, 1-9.
- **Lemmers-Jansen, I. L.J.**, Krabbendam, L., Veltman, D. J., & Fett, A. K. J. (2017). Boys vs. girls: Gender differences in the neural development of trust and reciprocity depend on social context. *Developmental Cognitive Neuroscience*, 25, 235–245.
- Fett, A. K. J., González Berdugo, C. I., Hanssen, E., **Lemmers-Jansen, I.L.J.**, Shergill, S. S., & Krabbendam, L. (2015). I spy with my little eye—the detection of intentional contingency in early psychosis. *Cognitive neuropsychiatry*, 1-9.
- **Lemmers-Jansen, I.L.J.**, Versmissen, D., & Krabbendam, L. (2013). Wanen: over de oorsprong van opmerkelijke opvattingen. In: *Cognitieve neuropsychiatrie: een procesbenadering van symptomen*, Eling, P., Aleman, A., & Krabbendam, L. Eds., 97-124. Boom, Amsterdam.

In press

- Fett, A.-K.J., **Lemmers-Jansen, I.L.J.**, & Krabbendam, L. (2019). Psychosis and urbanicity: a review of the recent literature from epidemiology to neurourbanism. *Current Opinion in Psychiatry*
- **Lemmers-Jansen, I.L.J.**, Van Lange, P.A.M., Van Doesum, N.J., Veltman, D.J., & Krabbendam, L. (2018). Social Mindfulness and Psychosis: Neural response to socially mindful behaviour in first-episode psychosis and patients at clinical high-risk. *Frontiers Human Neuroscience*

In revision

- **Lemmers-Jansen, I.L.J.**, Fett, A.-K.J., Veltman, D.J., & Krabbendam, L. (2018). Trust and the city – linking urban upbringing to neural mechanisms of trust in psychosis

Under review

- **Lemmers-Jansen, I.L.J.**, Fett, A.-K.J., & Krabbendam, L. (2018). Neural correlates of urban risk environments. In: *Dimensions of Psychosis*. Tamminga, C., Van Os, J., Reininghaus, U., & Ivleva, E. Eds. Oxford University Press, New York.

Submitted

- **Lemmers-Jansen, I.L.J.**, Fett, A.-K.J., Shergill, S.S., Van Kesteren, M., & Krabbendam, L. (2019). Girls - boys: an investigation of the behavioural and neural mechanisms of trust and reciprocity in adolescence

Conference presentations

Oral presentations

- Apr. 2019 SIRS Orlando, Florida (US). **Individual presentation:** *Trust and the city – linking urban upbringing to neural mechanisms of trust in psychosis*. Awarded with **Travel Award (\$1000)**
- Apr. 2017 SRCD Austin, Texas (US) symposium 'Growing up in a City: The Influence of Urbanicity on Development in Youth'. **Symposium presentation:** *Urban Upbringing Influences Response to Social Feedback*
- Mar. 2017 ICOP Vienna (Austria) **Organizer of the symposium** 'Social interactions in psychopathology'. **Symposium presentation:** *Trust in ultra-high risk and psychosis*. Awarded with **Travel Grant (€150)**
- Mar. 2017 ICOP Vienna (Austria) symposium 'Cognition in Context: Social Networks and Social Cognition in Adolescence'. **Symposium presentation:** *Gender differences in development of trust depend on social context*
- Apr. 2015 ICOSR Colorado Springs (US). **Individual presentation:** *Minding other People's Interest: Neural Correlates of Social Mindfulness in Adolescents with Psychosis - Investigating a newly developed paradigm in adolescents with psychosis and healthy controls*
- Feb. 2014 SOPSI Torino (Italy). **Individual presentation:** *Metacognitive training in schizophrenia patients (MCT): 3-year follow-up*

Poster presentations

- Apr. 2017 ICOSR San Diego (US) *Urban Upbringing Influences Response to Social Feedback*. **Lemmers-Jansen, I.L.J.** and Fett, A.-K.J. *Schizophrenia Bulletin*, 2017
- Apr. 2016 SIRS Firenze (Italy) *Choosing with others in mind: neural mechanisms of social mindfulness in health and psychosis*. **Lemmers-Jansen, I.L.J.**, Van Lange, P.A.M., Fett, A.-K., Veltman, D.J., & Krabbendam, L.
- Apr. 2016 SIRS Firenze (Italy) *Neural correlates of Trust in health, psychosis and in patients at ultra-high risk for psychosis*. **Lemmers-Jansen, I.L.J.**, Fett, A.-K.J., Hanssen, E., Veltman, D.J., Krabbendam, L.
- Sept. 2015 Flux Leiden (Netherlands) *Age influences caudate activity in socially mindful decisions* **Lemmers-Jansen, I.L.J.**, Van Lange, P.A.M., Van Doesum, N.J., Veltman, D.J., & Krabbendam, L.