

David M. Lydon-Staley, Ph.D.

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ACADEMIC POSITIONS

University of Pennsylvania

Assistant Professor

Annenberg School for Communication

July 2020 – present

Postdoctoral Researcher

Department of Bioengineering

August 2017 – July 2020

EDUCATION

The Pennsylvania State University

Ph.D. Human Development & Family Studies

July 2017

M.S. Human Development & Family Studies

May 2014

Trinity College Dublin, Ireland

B.A. (Honors) Psychology & English Literature

May 2011

AWARDS AND FELLOWSHIPS

Summer Seminars in Neuroscience and Philosophy Summer Scholar	2020
UCLA mHealth Training Institute Scholar	2019
Human Capital Economic Opportunity Dissertation Prize, University of Chicago	2018
Jacobs Foundation/ISSBD Early Career Scholar	2015 – 2017
Steven H. Zarit Award for Outstanding Graduate Studies, Penn State	2016
Global Programs Graduate Travel Grant, Penn State	2015
Prevention & Methodology Fellowship, National Institute on Drug Abuse	2014 – 2016
NIDA/NIAA-sponsored APA Early Career Poster and Travel Award	2014/2015
Graham Fellowship, Penn State	2012

FUNDING

Person-specific dynamic networks of nicotine withdrawal: Implications for smoking cessation. K01. *National Institute on Drug Abuse*. 07/01/2019 – 06/30/2024. PI: D.M. Lydon-Staley.

The Knowledge Networks Over Time (KNOT) Study: Within-person change in curiosity and implications for well-being across development. *Center for Curiosity*. PI: D.S. Bassett.

PUBLICATIONS

29. Fink, K., Bonna, K., He, X., **Lydon-Staley, D.M.**, Kühn, S., Duch, W., & Bassett, D.S. (accepted). Dynamic reconfiguration of functional brain networks during working memory training. *Nature Communications*. Preprint: <https://osf.io/wf85u/>
28. Murphy, A.C., Bertolero, M.A., Papadopoulos, L., **Lydon-Staley, D.M.**, & Bassett, D.S. (in press). Multiscale and multimodal network dynamics underpinning working memory. *Nature Communications*. Preprint: <https://arxiv.org/abs/1901.06552>
27. Fosco, G.M., & **Lydon-Staley, D.M.** (2019). Implications of family cohesion and conflict for adolescent mood and well-being: Examining within- and between-family processes on a daily timescale. *Family Process*. Advance online publication: <https://doi.org/10.1111/famp.12515>
26. **Lydon-Staley, D.M.**, Falk, E.B., & Bassett, D.S. (2019). Within-person variability in sensation-seeking during daily life: positive associations with alcohol use and self-defined risky behaviors. *Psychology of Addictive Behaviors*. Advance online publication: <https://doi.org/10.1037/adb0000535>
25. **Lydon-Staley, D.M.**, Zurn, P., & Bassett, D.S. (2019). Within-person variability in curiosity during daily life and associations with well-being. *Journal of Personality*. Advance online publication: <https://doi.org/10.1111/jopy.12515>
24. **Lydon-Staley, D.M.**, Kuehner, C., Zamoscik, V., Huffziger, S., Kirsch, P., & Bassett, D.S. (2019). Repetitive negative thinking in daily life and functional connectivity among default mode, fronto-parietal, and salience networks. *Translational Psychiatry*, 9, 234.
23. Cornblath, E.J., **Lydon-Staley, D.M.**, & Bassett, D.S. (2019). Neuropsychiatric care informed by networks and big data. *Current Opinion in Neurobiology*, 55, 32-39.
22. Fosco, G.M., & **Lydon-Staley, D.M.** (2019). A within-family examination of interparental conflict, cognitive appraisals, and adolescent mood and well-being. *Child Development*, 90, e421-e436.
21. **Lydon-Staley, D.M.**, Barnett, I., Satterthwaite, T.D., & Bassett, D.S. (2019). Digital phenotyping for psychiatry: Accommodating data and theory with network science methodologies. *Current Opinion in Biomedical Engineering*, 9, 8-13.
20. **Lydon-Staley, D. M.**, Ciric, R., Satterthwaite, T. D., & Bassett, D. S. (2019). Evaluation of confound regression strategies for the mitigation of motion artifact in studies of dynamic resting state functional connectivity. *Network Neuroscience*, 3, 427-454.
19. **Lydon-Staley, D.M.**, Xia, M., Mak, H. W., & Fosco, G.M. (2019). Adolescent Emotion Network Dynamics in Daily Life and Implications for Depression. *Journal of Abnormal Child Psychology*, 47, 717-729.
18. Tang, E., Mattar, M.G., Giusti, C., **Lydon-Staley, D.M.**, Thompson-Scholl, S.L., & Bassett, D.S. (2019). Effective learning is accompanied by high dimensionality and efficient representations of neural activity. *Nature Neuroscience*, 22, 1000-1009.

17. White, R., Gatzke-Kopp, L.M., Ryan, P., & **Lydon-Staley, D.M.** (2019). The association between perinatal hypoxia exposure and externalizing symptoms and risky decision making in childhood is moderated by DRD2 genotype. *Developmental Psychobiology*, *61*, 56-68.
16. Gatzke-Kopp, L. M., Ram, N., **Lydon-Staley, D. M.**, & DuPuis, D. (2018). Children's sensitivity to cost and reward in decision making across distinct domains of probability, effort, and delay. *Journal of Behavioral Decision Making*, *31*, 12-24.
15. Geier, C.F., Roberts, N., & **Lydon-Staley, D.M.** (2018). The effects of smoking abstinence on incentivized spatial working memory. *Substance Use and Misuse*, *53*, 86-93.
14. **Lydon-Staley, D.M.**, & Bassett, D. S. (2018). The Promise and Challenges of Intensive Longitudinal Designs for Imbalance Models of Adolescent Substance Use. *Frontiers in Psychology*, *9*, 1576.
13. **Lydon-Staley, D.M.**, & Bassett, D.S. (2018). Network neuroscience: A framework for developing biomarkers in psychiatry. In J. Pratt, & J. Hall (Eds.), *Current topics in behavioral neurosciences: Biomarkers in psychiatry*. Advanced online publication. https://doi.org/10.1007/7854_2018_41
12. **Lydon-Staley, D.M.**, & Geier, C.F. (2018). Age-varying associations between cigarette-smoking, sensation-seeking, and impulse control through adolescence and young adulthood. *Journal of Research on Adolescence*, *28*, 354-367.
11. **Lydon-Staley, D.M.**, Schnoll, R., Hitsman, B., & Bassett, D.S. (2018). The network structure of tobacco withdrawal in a community sample of smokers treated with nicotine patch and behavioral counseling. *Nicotine & Tobacco Research*. Advance online publication: <https://doi.org/10.1093/ntr/nty250>
10. Yang, X., Ram, N., Gest, S.D., **Lydon-Staley, D.M.**, Conroy, D.E., Pincus, A.L., & Molenaar, P.C.M. (2018). Socioemotional dynamics of emotion regulation and depressive symptoms: A person-specific network approach. *Complexity*, *2018*.
9. **Lydon-Staley, D.M.**, Cleveland, H.H., Huhn, A.S., Cleveland, M.J., Harris, J., Stankoski, D., Deneke, E., Meyer, R.E., & Bunce, S.C. (2017). Daily sleep quality affects craving, partially through indirect associations with positive affect, in patients in treatment for nonmedical use of prescription drugs. *Addictive Behaviors*, *65*, 275-282.
8. **Lydon-Staley, D.M.**, Ram, N., Brose, A., & Schmiedek, F. (2017). Reduced Impact of Alcohol Use on Next-day Tiredness in Older Relative to Younger Adults: A Role for Sleep Duration. *Psychology & Aging*, *32*, 642-653.
7. Huhn, A.S., Harris, J., Cleveland, H.H., **Lydon, D.M.**, Stankoski, D., Cleveland, M.J., Deneke, E., & Bunce, S.C. (2016). Ecological momentary assessment of affect and craving in patients in treatment for prescription opioid dependence. *Brain Research Bulletin*, *123*, 94-101.
6. **Lydon, D.M.**, Howard, M., Wilson, S.J., & Geier, C.F. (2016). The perceived causal structures of smoking: Smoker and non-smoker comparisons. *Journal of Health Psychology*, *21*, 2042-2051.

5. **Lydon, D.M.**, Ram, N., Conroy, D.E., Pincus, A.L., Geier, C.F., & Maggs, J.L. (2016). The within-person association between alcohol use and sleep duration and quality in situ: an experience sampling study. *Addictive Behaviors*, *61*, 68-73.
4. **Lydon, D.M.**, Galvan, A., & Geier, C.F. (2015). Adolescence and addiction: Vulnerability, opportunity, and the role of brain development. In S.J. Wilson (Ed.), *The Wiley-Blackwell Handbook on the Cognitive Neuroscience of Addiction*. Oxford, UK: Wiley-Blackwell.
3. **Lydon, D.M.**, Roberts, N., & Geier, C.F. (2015). Reduced influence of monetary incentives on Go/No-Go performance during smoking abstinence. *Nicotine & Tobacco Research*, *17*, 1178-1181.
2. **Lydon, D.M.**, & Nixon, E. (2014). Facial mimicry interference affects reaction time but not accuracy on an emotion-recognition task in children, adolescents, and adults. *The Irish Journal of Psychology*, *35*, 106-120.
1. **Lydon, D.M.**, Wilson, S.J., Child, A., & Geier, C.F. (2014). Adolescent brain maturation and smoking: what we know and where we're headed. *Neuroscience & Biobehavioral Reviews*, *45*, 323-342.

Preprints/Manuscripts Under Review

Lydon-Staley, D.M., Zhou, D., Sizemore Blevins, A., Zurn, P., & Bassett, D.S. (under review). Hunters, busybodies, and the knowledge network building associated with curiosity. Preprint: <https://psyarxiv.com/undy4>

Lydon-Staley, D.M., Leventhal, A.M., Piper, M.E., Schnoll, R.A., & Bassett, D.S. (under review). More than the sum of its parts: A network perspective on tobacco withdrawal. Preprint: <https://psyarxiv.com/t2a9q>

Lydon-Staley, D.M., MacLean, R.R., Falk, E.B., Bassett, D.S., & Wilson, S.J. (under review). Segregation of the default mode from frontoparietal system protects against smoking lapse. Retrieved from <https://psyarxiv.com/ncwef>

Drake, A.*, Doré, B., Falk, E.B., Zurn, P., Bassett, D.S., & **Lydon-Staley, D.M.** (under review). Flourishing and its associations with affective reactivity and recovery to daily stress. Preprint: <https://psyarxiv.com/ahxq5>

*High school student mentee

Lydon-Staley, D.M., LoBraico, E.J., Bray, B.C., & Fosco, G.M. (preprint). Conceptualizations of the family context: New insights gained by capturing daily variability in cohesion and context. Preprint: <https://psyarxiv.com/zq35f/>

INVITED TALKS & CONFERENCE PRESENTATIONS

- 2020 Meeting of the International Society for Research on Impulsivity
- 2019 Social Cognitive and Affective Neuroscience (SCAN) Lab, Columbia University
- 2019 Network Medicine satellite at *Net.Sci2019*
- 2019 Computer Science Department colloquium, American University

CONFERENCE PRESENTATIONS

Chaired Symposia

Lydon-Staley, D.M. (May, 2020). Curiosity and information-seeking in the laboratory and in situ across seconds, days, and Millenia. *Association for Psychological Science*. Cancelled due to Covid-19.

Paper Presentations

Jovanova, M., **Lydon-Staley, D.M.**, O'Donnell, M., Pandey, P., Parelman, J., Kang, Y., Bassett, D.S., & Falk, E.B. (May, 2020). Default more and salience brain network integration during messaging predicts health behavior change. Paper presented at *International Communication Association Conference*.

Jovanova, M., Doré, B., **Lydon-Staley, D.M.**, Stanoi, O., Cooper, N., Kang, Y., Mucha, P., Ochsner, K., Bassett, D.S., & Falk, E.B. (May, 2020). Effects of a smartphone delivered intervention: Using mindfulness and perspective-taking to reduce alcohol consumption among college students. Paper presented at *International Communication Association Conference*.

Lydon-Staley, D.M. (March, 2019). Brain networks underpinning cognitive control support flexible behavior *in situ*. Paper presented at the annual meeting of the *Cognitive Neuroscience Society*.

LoBraico, E.J., **Lydon-Staley, D.M.**, & Fosco, G.M. (November, 2018). Latent profiles of variability and levels of family conflict and cohesion: Implications for adolescent adjustment. Paper presented at the *National Council on Family Relations*.

Fosco, G.M., & **Lydon-Staley, D.M.** (June, 2017). Daily variation in family cohesion and conflict: Implications for Adolescent Psychopathology and Well-Being. Paper presented at the *Society for Prevention Research*.

Fosco, G.M., & **Lydon-Staley, D.M.** (April, 2017). Aligning data, methodology, and theory in characterizing the associations between interparental conflict, adolescent appraisals, and adjustment on a daily timescale. Paper presented at the *Society for Research in Child Development*.

Lydon-Staley, D.M., Xia, M., & Fosco, G.M. (April, 2017). Daily emotion dynamics provide insight into emotion regulation above trait measures: Emotion network density and associations with symptoms of psychopathology in adolescents. Paper presented at the *Society for Research in Child Development*.

Mak, H.W., **Lydon-Staley, D.M.**, & Fosco, G.M. (April, 2017). The influence of parental emotion socialization on adolescents' emotion network density. Paper presented at the *Society for Research in Child Development*.

Yang, X., **Lydon, D.M.**, & Ram, N. (May, 2016). Individuals as dynamic networks: A merging of intraindividual variability, network analysis, and experience sampling. Paper presented at *Modern Modeling Methods*.

Poster Presentation

Lydon-Staley, D.M., Leventhal, A.M., Piper, M., Schnoll, R.A., & Bassett, D.S. (April, 2020). More than the sum of its parts: A network perspective on tobacco withdrawal. Poster presented at the *Society of Behavioral Medicine*. Cancelled due to Covid-19.

Von Schwanenflug, N., Koch, S.P., **Lydon-Staley, D.M.**, Heine, J., Prüss, H., Friedmann, P., Bassett, D.S., & Finke, C. (June, 2019). Alterations of network configurations in patients with anti-NMDA receptor encephalitis. Poster presented at *Organization for Human Brain Mapping*.

Jovanova, M., Pandey P., O'Donnell M.B., Parelman J., **Lydon-Staley, D.M.**, Kang, Y., Bassett, D.S., Falk E.B. (May, 2019) Functional connectivity between salience and self networks predicts message-consistent cognitions and health behavior change. Poster presented at *Social Affective Neuroscience Society*.

Zhou, D., **Lydon-Staley, D.M.**, Zurn, P., & Bassett, D.S. (May, 2019). Mechanisms of curiosity and information seeking during Wikipedia exploration. Poster presented at the *Arthur M. Sackler Colloquia on the National Academy of Sciences*.

Lydon-Staley, D.M., & Bassett, D.S. (May, 2019). Within-person variability in sensation-seeking during daily life: Associations with alcohol use and self-defined risky behaviors. Poster presented at the *Society for the Science of Motivation*.

Lydon-Staley, D.M., Zurn, P., & Bassett, D.S. (May, 2019). Fragile curiosity: Augmentation and blunting of curiosity in daily life and implications for well-being. Poster presented at the annual meeting of the *Association for Psychological Science*.

Lydon-Staley, D.M., Ciric, R., Gur, R.C., Gur, R.E., Satterthwaite, T.D., and Bassett, D.S. (May, 2018). Evaluation of confound regression strategies for the mitigation of motion artifact in studies of dynamic resting state functional connectivity. Poster presented at *Association for Psychological Science*.

Ryan, P., White, R., **Lydon-Staley, D.M.**, & Gatzke-Kopp, L.M. (April, 2017). A polymorphism in the glucocorticoid receptor gene mitigates the effect of physical prenatal maternal stress on effort tolerance. Poster presented at the *Society for Research in Child Development*.

White, R., Ryan, P., **Lydon-Staley, D.M.**, & Gatzke-Kopp, L.M. (April, 2017). COMT gene variants differentially moderate the effects of physical and interpersonal risk factors on children's delay tolerance. Poster presented at the *Society for Research in Child Development*.

White, R., Ryan, P., **Lydon-Staley, D.M.**, & Gatzke-Kopp, L.M. (April, 2017). DRD2 Taq1A polymorphism moderates the effect of pre- and perinatal exposure to hypoxic conditions on probability discounting. Poster presented at the *Society for Research in Child Development*.

Lydon-Staley, D.M., Luna, B., & Geier, C.F. (September, 2016). Age varying associations between daily cigarette-smoking, sensation-seeking, and impulse control through adolescence and young adulthood. Poster presented at *Flux: The International Congress of Integrative Developmental Cognitive Neuroscience*.

Lydon, D.M., Ram, N., Geier, C.F., & Gatzke-Kopp, L. (July, 2016). Individual differences in cost discounting: Associations with prenatal nicotine exposure. Poster presented at the *International Society for the Study of Behavioral Development*.

Cleveland, M., Cleveland, H.H., **Lydon, D.M.**, Deneke, E., Stankoski, D., & Bunce, S. (June, 2016). Between-person differences in within-day associations between affect and cravings predict time-to-relapse among prescription opiate dependent patients. Poster presented at the *Research Society on Alcoholism*.

Lydon, D.M., Ram, N., Geier, C.F., & Gatzke-Kopp, L. (September, 2015). Differences in children's cost discounting are associated with exposure to prenatal smoking. Poster presented at *Flux: The International Congress of Integrative Developmental Cognitive Neuroscience*.

White, R., Roberts, N.J., **Lydon, D.M.**, Lo, L.L., Luna, B., & Geier, C.F. (September, 2015). Development of reward and cognitive control connectivity using Group Iterative Multiple Model Estimation. Poster presented at *Flux: The International Congress of Integrative Developmental Cognitive Neuroscience*.

Lydon, D.M., Ram, N., Geier, C.F., & Gatzke-Kopp, L. (September, 2015). Differences in children's cost discounting are associated with exposure to prenatal smoking. Poster presented at the *Society for Research in Child Development*.

Lydon, D.M., Ram, N., Maggs, J.L., Conroy, D.E., Pincus, A.E., & Geier, C.F. (August, 2015). Sleep quality is reduced after alcohol use: an intensive look at everyday life. Poster presented at the *American Psychological Association*.

Geier, C.F., **Lydon, D.M.**, Lo, L., Roberts, N., & Luna, B. (September, 2014). The influence of incentives on cognitive control during adolescence. Poster presented at *Flux: the International Congress of Integrative Developmental Cognitive Neuroscience*.

Lydon, D.M., Roberts, N., & Geier, C.F. (September, 2014). Integrating smoking beliefs into a neurobiological model of smoking-related decision-making. Poster presented at *Flux: The International Congress of Integrative Developmental Cognitive Neuroscience*.

Roberts, N., **Lydon, D.M.**, & Geier, C.F. (September, 2014). Incentive effects on visual spatial working memory. Poster presented at *Flux: The International Congress of Integrative Developmental Cognitive Neuroscience*.

Lydon, D.M., & Geier, C.F. (August, 2014). The perceived causal structure of cigarette addiction among a sample of late adolescent smokers and non-smokers. Poster presented at the *American Psychological Association Convention*.

Lydon, D.M., Child, A., Beahm, J., & Geier, C.F. (November, 2013). A novel mixed anti- and visually guided saccade task to assess incentive effects on inhibitory control. Poster presented at *The Society for Neuroscience*.

Lydon, D.M., Child, A., Beahm, J., & Geier, C.F. (September, 2013). Incentive effects on inhibitory control across developmental and cigarette-smoking samples. Poster presented at *The International Congress for Integrative Developmental Cognitive Neuroscience*.

TEACHING

Department of Bioengineering, The University of Pennsylvania

Teaching Assistant

2019

Network Neuroscience (student evaluation of 3.47; 3-4 scaled “very good” to “excellent”)

Guest Lecturer

2017 – 2019

Network Neuroscience (Topics: Human Brain Networks in Psychiatric Disease; Flexible Behaviors and Flexible Brains)

Ancient and Modern Ways of Thinking About Thinking (Topic: Measuring Curiosity)

The College of Health and Human Development, The Pennsylvania State University

Teaching Assistant & Guest Lecturer

2012 – 2017

Introduction to Human Development and Family Studies

Infant and Child Development

Adolescent Development

Family Development

Developmental Problems in Childhood and Adolescence

Internship Experience

SCIENCE OUTREACH

Everyday curiosity. Interview with Choose to be Curious, Radio Arlington WERA-LP 96.7 FM

Life as a Postdoctoral Researcher in Psychology. Presentation at Out4STEM for STEM-oriented LGBTQIA Youth, The College of Physicians in Philadelphia. May, 2019.

Playing the Archive 5: Sonic Exploration of Dyadic Data. Public Data-Musik Concert, The Pennsylvania State University. January, 2019.

Letters to a Pre-scientist. Penpal to middle schoolers from low-income schools interested in exploring STEM careers. October 2018 – present.

Navigating your educational path toward an interdisciplinary career. Panelist for Alliance for the Arts in Research Universities (a2Ru) webinar. October, 2018.

Playing the Archive 4. Public Data-Musik Concert, The Pennsylvania State University. The Pennsylvania State University. January, 2017.

Banging Out the Data: Meaning Making Through Silence & Sound. Invited workshop at the *Graduate Women in Science National Conference*, State College, PA. June, 2015.

Sans-Axis. Data Visualization Exhibition, Borland Gallery, State College, PA. June, 2013.
<http://playingthearchive.com/#/exhibition/sans-axis/>

Penn State Graduate Student Sci-Art Collaboration. Workshop and Gallery Exhibition, Borland Gallery, State College, PA. September – December, 2013. <https://sciartgradcollab.weebly.com/>

AD HOC REVIEWER

Addictive Behaviors; Advances in Methods and Practices in Psychological Science; Behavioral Sleep Medicine; Biological Psychiatry; Brain Imaging and Behavior; Developmental Psychology; Emerging Adulthood; European Journal of Psychological Assessment; Journal of Adolescent Health; Journal of Complex Networks; Journal of Consulting and Clinical Psychology; Journal of Health Psychology; Journal of Personality; Journal of Research on Adolescence; Scientific Reports; Substance Abuse Treatment, Prevention and Policy; The American Journal of Drug and Alcohol Abuse

SERVICE

Society for Research on Adolescence Diversity and Equity Committee Member	2018-Present
Penn State LGBTQ Mentor	2016-2017
Penn State LGBTQ Safe Zone Program Volunteer	2014-2017
Penn State Human Development & Family Studies Admissions Committee	2015-2016
Penn State Human Development & Family Studies Steering Committee Chair	2014-2015
Penn State Human Development & Family Studies Newsletter Chair	2013-2014