

## CURRICULUM VITAE

SCOTT TILLEM

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### EDUCATION

- 2015 – Present **Yale University**; New Haven, Connecticut  
Ph.D., Student, Clinical Psychology
- 2009 – 2013 **Case Western Reserve University**; Cleveland, Ohio  
B.A., Triple Major (Overall GPA: 3.88)  
Cognitive Science (GPA: 3.80)  
Psychology (GPA: 4.00)  
Sociology: Crime and Delinquency Concentration (GPA: 4.00)

### HONORS AND AWARDS

- 2013 Magna Cum Laude; Case Western Reserve University
- 2013 The Award in Cognition and Culture; Department of Cognitive Science, Case Western Reserve University
- 2013 Laraine Masters Glidden Undergraduate Student Award; Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities
- 2012 First Place Presentation at SOURCE Symposium Poster Presentation, Social Sciences Category; Case Western Reserve University
- 2010-2012 Deans High Honor Roll; Case Western Reserve University

### PUBLICATIONS

#### *Peer-Reviewed Publications*

1. **Tillem, S.**, Ryan, J., Wu, J., Crowley, M. J., Mayes, L. C., & Baskin-Sommers, A. (2016). Theta phase coherence in affective picture processing reveals dysfunctional sensory integration in psychopathic offenders. *Biological Psychology*, 119, 42-45. NIHMS803808

#### *Manuscripts In Preparation*

1. **Tillem, S.**, van Dongen, J., Brazil, I., Baskin-Sommers, A. (In Preparation). Interpersonal-Affective Traits of Psychopathy are Associated with Less Efficient Neural Communication during Resting-State EEG.
2. **Tillem, S.**, Gozzi, M., Dashow, E., Thurm, A., Swedo S. & Zink, C. (In Preparation). The Effects of Intranasal Oxytocin and Vasopressin on the Human Neural Responses to Social and Nonsocial Attention Orienting Cues.
3. **Tillem, S.**, Pepe, L., Weinberger, D. & Zink, C. (In Preparation). Human Striatal Responses to Reward Void of Motivation, and Motivation Void of Reward.
4. Dimitropoulos, A. & **Tillem, S.** (In Preparation). Altered Face Processing in Prader-Willi Syndrome: A Direct Comparison to Autism and Neurotypical Controls.

5. **Tillem, S.** & Jack, A. (In Preparation). Meta-analysis of social, emotional and memory related processes and their relationship to antagonistic neural networks.

### **Book Chapters**

1. Estrada, S.\*, **Tillem, S.\***, Stuppy, A., Baskin-Sommers, A, (in press). Specifying the connection between reward processing and antisocial behavior across development: Review, integration and future directions. In J. Gruber (Ed.), *Oxford Handbook of Positive Emotion and Psychopathology*. Oxford University Press: New York, NY. \*These authors contributed equally to this publication

### **CONFERENCE SYMPOSIA**

1. **Tillem, S.**, van Dongen, J., Brazil, I., Baskin-Sommers, A. (2017) Interpersonal-Affective Traits of Psychopathy are Associated with Less Efficient Neural Communication during Resting-State EEG. Talk given at the *Society for the Scientific Study of Psychopathy*, Antwerp, Belgium.

### **POSTER PRESENTATIONS**

1. **Tillem, S.**, Pepe, L., Weinberger, D. & Zink, C. (2014). Human Striatal Responses to Reward Void of Motivation, and Motivation Void of Reward. *44<sup>th</sup> Annual Society for Neuroscience Meeting Poster Presentation*.
2. **Tillem, S.**, Pepe, L., Weinberger, D. & Zink, C. (2014). Reward vs Motivation: Striatal Responses to Reward Cues Presented after a Target. *20<sup>th</sup> Annual Organization for Human Brain Mapping Conference Poster Presentation*.
3. **Tillem, S.** & Jack, A. (2013). Social Brain Meta-Analysis: Regional Specialization and Relationship to Anti-Correlated Networks. *25<sup>th</sup> Annual Association for Psychological Science Convention Poster Presentation*.
4. **Tillem, S.** & Dimitropoulos, A. (2013). Functional Differences between Prader-Willi Syndrome, Autism Spectrum Disorder, and Neurotypical Controls During an fMRI based Facial Processing Task. *46<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities Poster Presentation*.
5. **Tillem, S.** & Jack, A. (2012). The Social Brain: An ALE Based Meta-Analysis of Social Cognition in the Brain. *Source Symposium Poster Presentation*.

### **RESEARCH EXPERIENCE**

2015-Present Graduate Research Assistant  
Department of Psychology, Yale University; New Haven, Connecticut  
Principle Investigator: Arielle Baskin-Sommers, Ph.D.

Research in the Mechanisms of Disinhibition (MoD) lab utilizes interdisciplinary theoretical principles and methods (e.g., electrophysiology, neuroimaging, self-report) to distinguish the deficits associated with antisocial behavior in order to improve the identification of these individuals who engage in chronic antisocial behavior and develop innovative person-specific interventions. One component of research in the MoD lab is to identify and specify the neural mechanisms associated with psychopathy. I work on several projects related to our focus on psychopathy. More specifically, I've examined EEG data (e.g., minimum spanning tree analysis, time frequency analysis) using BrainWave and Matlab to identify neural communication and attention processing in psychopathy. Additionally, I am involved

in data collection at our prison site and conduct clinical phone screens for our community site.

2013-2015      Research Associate  
Clinical Sciences Division, Lieber Institute for Brain Development; Baltimore, Maryland  
Principle Investigator: Caroline Zink, Ph.D.

Research under the direction of Dr. Zink takes advantage of advances in human genetics and neuroimaging techniques to gain a more complete understanding of the complex neural circuitry underlying distinct cognitive processes related to individual symptoms of schizophrenia and autism. As a research associate, I worked on two projects. First, was a project that examined the effects of intranasally administered oxytocin and vasopressin on the neural response to social eye gaze cues in neurotypical controls. Second, was a project that used two novel variants of the Monetary Incentive Delay fMRI paradigm to determine the ventral striatum's (a limbic structure which has a long association with reward-predicting cues) role in motivation, disentangled from reward processing (which is intact in schizophrenia). On both projects, I wrote and edited Matlab scripts for analysis of the behavioral and fMRI data, developed a preprocessing pipeline for fMRI data using SPM8 and Matlab scripts, and was involved in analysis and dissemination of the data. Lastly, I helped other lab members learn Matlab and SPM8 and assisted in piloting new fMRI paradigms at the scanner.

2012-2013      Undergraduate Research Assistant  
Department of Psychological Sciences, Case Western Reserve University; Cleveland, Ohio  
Neurodevelopment Research Lab  
Principle Investigator: Anastasia Dimitropoulos, Ph.D.  
Project: Facial Processing in Prader-Willi Syndrome

Research within Dr. Dimitropoulos' Neurodevelopmental Research Lab utilizes genetics, neuroimaging techniques, and behavioral paradigms to examine the cognitive and social deficits of individuals with developmental disorders, such as Prader-Willi Syndrome and Autism Spectrum Disorder. As a research assistant in this lab I was involved a project that utilized an fMRI facial processing paradigm to examine social processing in individuals with Prader-Willi Syndrome contrasted against individuals with Autism Spectrum Disorder and healthy controls. For this project I was responsible for the analysis and dissemination of the data.

2010-2013      Undergraduate Research Assistant  
Department of Cognitive Science, Case Western Reserve University; Cleveland, Ohio  
Brain Mind and Consciousness Lab  
Principle Investigator: Anthony Jack, Ph.D.

Research within the Brain Mind and Consciousness Lab utilized neuroimaging techniques to examine the neural underpinnings of higher-level cognitive processes (e.g. social cognition, introspection, and mechanical reasoning) in the humans. One component of

this research involves examining the functions the Default Mode Network (a neural network associated with social cognition and internally directed attention). During my time in this lab, I ran a project related to this Default Mode Network research. Specifically, I completed an Activation Likelihood Estimation (ALE) based meta-analysis of neuroimaging data to identify and classify regions of functional specialization within the Default Mode Network. For this project, I performed the initial literature search and data collection, developed and trained lab members on a data classification system, processed and analyzed the data using GingerALE and Caret, and disseminated the data. Additionally, during my time in this lab, I assisted in fMRI data collection for various other projects.

2010-2012 Undergraduate Research Assistant  
Department of Psychological Sciences, Case Western Reserve University; Cleveland, Ohio  
Relationships, Emotion and Family Lab  
Principle Investigator: Arin Connell, Ph.D.

Research in the Relationships, Emotion, and Family Lab utilized multi-modal research methods (e.g. EEG, physiological recording, behavioral observations, and self-report) to examine the etiology of internalizing disorders in children and adolescents. During my time as a research assistant in this lab I preprocessed EEG and physiological recording data, completed diagnostic interviews for depression in adolescents, and assisted in data collection (EEG, physiological, and behavioral) for various projects.

## TEACHING EXPERIENCE

- Spring 2017 Graduate Teaching Fellow  
Department of Psychology, Yale University; New Haven, Connecticut  
Professor: Gregory McCarthy  
Class: PSYC 160- The Human Brain  
*Duties:* graded assignments and exams, held office hours to meet with students, facilitated review sessions
- Fall 2016 Graduate Teaching Fellow  
Department of Psychology, Yale University; New Haven, Connecticut  
Professor: Tyrone Cannon, Ph.D.  
Class: PSYC 190- Introduction to Clinical Neuroscience  
*Duties:* graded assignments and exams, held office hours to meet with students, facilitated review sessions
- Spring 2012 Undergraduate Teaching Assistant  
Department of Cognitive Science, Case Western Reserve University; Cleveland, Ohio  
Professor: Anthony Jack, Ph.D.  
Class: COGS 102- Introduction to Cognitive Neuroscience  
*Duties:* graded assignments and exams

## **CLINICAL EXPERIENCE**

2016-Present Student Clinician

Yale Psychology Department Clinic, Yale University; New Haven, Connecticut

Supervisors: Mary O'Brien, Ph.D., Christine DeMaio, Ph.D., & Arielle Baskin-Sommers, Ph.D.

The Yale Psychology Department Clinic provides outpatient individual, couples, and group treatments to New Haven community members. Treatment programs at the clinic are skills-oriented and based in both Cognitive Behavioral Therapy (CBT) and Dialectical Behavioral Therapy (DBT). During my time at the clinic I have completed intake interviews for incoming individual and group clients using the SCID-5, conducted weekly sessions of individual therapy utilizing skills trainings from both CBT and DBT, and conducted weekly sessions of group based DBT.

## **PROFESSIONAL SOCIETY MEMBERSHIPS**

2017 Society for the Scientific Study of Psychopathy

2014 Society for Neuroscience

2013 Association for Psychological Sciences

## **SKILLS AND QUALIFICATIONS**

### **Computer Skills**

- Extensive experience with Windows XP, Windows Vista, and Windows 7, Windows 10
- Familiar with Unix
- Expertise with Microsoft Excel, Microsoft Powerpoint, Microsoft Word, and SPSS
- Proficiency with MATLAB and PsychToolbox
- Experience processing, examining, and analyzing fMRI data using SPM8, Caret (version 5), Brain Voyager, and GingerALE
- Experience processing, examining, and analyzing EEG data using EEGLab and BrainWave

### **Miscellaneous Skills**

- CPR certified