April 27, 2017

DEPARTMENT OF PSYCHOLOGY

RESEARCH POSTER PRESENTATION

(46 posters, 102 students)

#	Presenters	Advisors
1	Sarah Corner, Jordan Feingold-Link, and Ilana Ladis*	H. Barth
2	Jamie Hom, Meghana Kandlur, Praise Owoyemi, Joanna Paul, Elizabeth Shackney	H. Barth
3	Maxine Lai and Alexandra Zax^	H. Barth
4	Alexandra Zax^	H. Barth
5	Chenmu "Julia" Xing^^	H. Barth
6	Sheri Reichelson**	H. Barth
7	Emily Blaker and Jenna Shapiro	J. Cooper
8	Samantha Schreiber, Medha Swaminathan, and Teresa Naval	B. Juhasz
9	Lauren Yue	B. Juhasz
10	Jenne Johnson	K. Kim
11	Amabel Jeon and Danielle Rothschild	K. Kim
12	Solange Resnik, Yvette Yun, and Mia Ray	K. Kim
13	Han Yang Tay	P. Loui
14	Tima Zeng*	P. Loui
15	Cameron Arkin	P. Loui
16	Sean Patterson, Emily Przysinda^	P. Loui
17	Sarah Knight and Maxine Bouvagnet	P. Loui
18	Tedra James and Gonçalo Sampaio	P. Loui
19	Molly Byrne, Kinsey Yost, and Christine Mathews	P. Loui
20	Trinity Russell*	M. Robinson
21	Olivia Lofaro*	M. Robinson
22	Fred Ayres and Vaishvi Jhaveri	M. Robinson
23	Ariel Ben-Ezra, Emma Halter, and Carli Poisson	M. Robinson
24	Rebecca Shteyn, Callie Clibanoff, Hadley Walsh, Chi Chi Wakabayashi, Aida Julien, Freya Strasburg, Katie Ross, and Anna Knes	M. Robinson
25	Lucy De Souza**	P. Rodriguez Mosquera
26	Yvette Yun	P. Rodriguez Mosquera
27	Maxine Lai and Sophia Antonio	P. Rodriguez Mosquera
28	Maya Dorn*, Tatum Leclair	P. Rodriguez Mosquera

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RESEARCH POSTER PRESENTATION

29	Gabriella Montinola*	K. Schmidt
30	Shane Ross and KC O'Hara	K. Schmidt
31	Ilana Ladis*	C. Shepherd
32	Kayla Schlenz**	C. Shepherd
33	Mary Toomey*	A. Shusterman
34	Megan Dolan* and Sara Dean	A. Shusterman
35	Emily Kaplan-Levenson, Joy Adedokun, and Jordan Ellman	A. Shusterman
36	Natalie May and Sifana Sohail	A. Shusterman
37	Lauren Conte, and Leyla Wade	R. Tavernier
38	Martin Rubin, Nicole Brenner, Toys Koomplee, Laila Samy and Olivia Footer	R. Tavernier
39	Nicole Brenner, Mikaela Carty, Jamie Hom, Jessi Lord, and Danielle Rothschild	R. Tavernier
40	Jessi Lord, Nicole Brenner, Mikaela Carty, Danielle Rothschild, and Jamie Hom	R. Tavernier
41	Ella Sinfield, Toys Koomplee, Ray Peters, and Luka Lezhanskyy	R. Tavernier
42	Fred Ayres, Eunice Lee, Joshua Cardenas, Serene Murad, Ananya Subrahmanian, Louisa Winchell, and Mingxuan "Michelle" Tan^^	S. Versey
43	Yun Ju "Roxie" Chuang*	C. Wilkins
44	Sheri Reichelson**	C. Wilkins
45	Gabrielle Ebron, Kadijah Matthews, Jamie Hom	C. Wilkins
46	Taylor Dillon, Aaron Feliciano, and Vivian Liu	C. Wilkins

* Psychology or NS&B BA student – thesis presentation
** Psychology or NS&B BA/MA student – thesis presentation
^ Research Associates & Research Assistants
^^ Post Doctorates

Poster # 1
Demand Characteristics in the Child Minimal Group Paradigm
Presenter/s: Sarah Corner, Jordan Feingold-Link, and Ilana Ladis
Advisor: Hilary Barth
Previous investigations have demonstrated the presence of a 'minimal' group bias in children, wherein children demonstrate an in-group bias even when groups are novel and arbitrary. To our knowledge, no investigation has attempted to uncover what role demand characteristics may play in these effects. We describe a proposed study that aims to critically investigate this possible role by measuring whether a similar effect can be produced without any group categorization event. We will perform a procedure that closely matches previous investigations but without the critical content that is theoretically required for an in-group bias to occur. If a bias is observed, this would provide evidence that group affiliation is not the driving force behind these effects in children.

Poster # 2
Partition Dependence in Financial Aid Allocations
Presenter/s: Jamie Hom, Meghana Kandlur, Praise Owoyemi, Joanna Paul, and Elizabeth Shackney
Advisor: Hilary Barth
Individuals often allocate resources by spreading them across varied categories; people diversify even across arbitrary categories, such that allocations will differ even when identical options are differently partitioned ("*partition dependence,"* Fox & Rottenstreich, 2003). For example, in a Fox et al. (2005) study, adults demonstrated partition dependence when allocating university financial aid across differently partitioned income brackets. The present study replicated Fox et al. (2005) at Wesleyan. Because greater expertise and stronger intrinsic preferences reduce partition dependence, we hypothesized that Wesleyan students might not display partition dependence with financial aid allocations. Alternatively, if partition dependence in resource allocation is particularly robust, it may appear even in this relatively knowledgeable and invested population. Additionally, we added a new manipulation where participants were shown both options and randomly assigned themselves to a low or high-income partition to see if partition dependence would be reduced by making the study's structure explicit. Based on preliminary data, Wesleyan students demonstrated partition dependence when presented with only one of the two partitions. When participants saw both partitions and randomly assigned themselves to one, we did not find evidence of partition dependence. Results highlight marketers' ability to influence consumers' decisions through the partitioning of available options.

Poster # 3
Do holistic number representations form adults' and children's numerical estimates?
Presenter/s: Maxine Lai and Alexandra Zax
Advisor: Hilary Barth
Learning the meanings of Arabic numerals involves mapping the number symbols to mental representations of their corresponding, approximate numerical quantities. It is often assumed that these representations drive performance on numerical tasks, but studies are now showing that this link is not clear. We ask whether holistic number representations drive performance in number line estimation (NLE) tasks, or whether

specific digits influence estimates. If the former is true, estimates for numerals that have similar magnitudes, but different digits (such as 399 and 402) should be placed in similar locations. If the latter is true, these estimates will differ significantly. In two studies, children and adults completed a 0-1000 NLE task with paired target values on either side of "Hundreds" boundaries (e.g. 698 and 701) and "Fifties" boundaries (e.g. 749/752). In Study 1, an atypical speeded NLE task was used, while Study 2 used a standard non-speeded NLE task. In both speeded and non-speeded conditions, specific hundreds digits influenced performance. This means that holistic representations of numerals are not the primary influence shaping children's or adults' estimates.

Poster # 4
Quantitative Models of Proportion Estimation Explain Numerical Estimation With and Without Anchors
Presenter/s: Alexandra Zax
Advisor: Hilary Barth
What do numerical estimates tell us about the development of the understanding of number? One theory is that estimates reveal a "representational shift" from logarithmically to linearly organized mental representations over development. A different theory claims that models of proportion judgment better describe these estimates, and that developmental change in estimation reflects change in children's numerical knowledge and ability to make appropriate relative judgments, rather than revealing categorical representational change. A recent study argued against this theory by suggesting that cyclical patterns of over- and underestimation described by this account are artifacts of a task procedure in which children receive explicit information about the location of the numerical midpoint (Opfer, Thompson, & Kim, 2016). We test this claim in two studies (N = 122). We found that proportion judgment models explain the development of numerical estimation with and without midpoint cues, that explicit cues to the midpoint of the number line increase the probability that children will use a middle reference point, and that children may use a middle reference point spontaneously in the absence of explicit midpoint cues. This work shows that proportion judgment models can explain numerical estimates whether or not spatial and numerical midpoint anchors are provided.

Poster # 5
Links between Numerical Competence and Math Ability at Ages 6-8
Presenter/s: Chenmu (Julia) Xing^
Advisor: Hilary Barth
This study examined the links between 6- to 8-year-olds' numerical competence and math ability. 98 children completed a 0-100 number line task measuring numerical estimation abilities, a dot discrimination task evaluating the approximate number system (ANS), an imprecise, non-symbolic system of number representation, and the TEMA-3, a standardized math ability test. A continuous and significant developmental progression was found in the number line task performance but not in ANS acuity at this age. Children's ability to use a sophisticated proportion estimation strategy for the number line task was found to be an important source of the differences in their TEMA scores. ANS acuity also predicted the TEMA scores in addition. However, number line performance did not correlate with ANS acuity, suggesting the possible independence of the two numerical processes and their links with math ability at ages 6-8.

Poster # 6
Partition Dependence in Children's and Adults' Decision-Making
Presenter/s: Sheri Reichelson**
Advisor: Hilary Barth
The partitioning of options into arbitrary categories influences adults' decisions when making selections or allocations among those categories; this tendency is called "partition dependence." In three selection experiments (*N* = 299) I asked whether a candy selection task elicits partition dependence in children and adults as reported in a previous adult study (Fox, Ratner, & Lieb, 2005). The physical partitioning of candy across bowls did not influence the selections of adults or children, conflicting with previous findings. In three allocation experiments (*N* = 159 children and *N* = 60 adults) I tested to see if children and adults exhibit partition dependence in a novel resource allocation task. This novel task of distributing food to zoo animals elicited partition dependence in older and younger children, with younger children exhibiting stronger partition dependence. Preliminary adult results suggest that the allocation task does not influence adults' decisions. This work questions the scope of partition dependence in physical choices and proposes explanations for the discrepancy between these selection findings and previous selection findings. I provide the first evidence of partition dependence in children, suggesting that younger children are more susceptible to partition dependence and laying the groundwork for future developmental investigations into the phenomenon.

Poster # 7
Individual Differences in Morphological Awareness and Reading Skills
Presenter/s: Emily Blaker and Jenna Shapiro
Advisor: Jennifer Cooper
Collaborative work benefits student learning. In this research, two 200-level Wesleyan courses (52 students) completed a section of a test in a group. Participants were surveyed before the test about their experiences with collaborative work, preparation, difficulty of the class, stress about exams, and expectations for the test. After each test, participants reported impressions of the group experience (e.g., familiarity with members, how well they worked together). Preliminary findings indicate that students' stress was not correlated to their preparation, but overall stress for individual and group exams were strongly related. Students felt that work was distributed evenly across group members during testing. Over half of the students reported intentions to change their studying after the first test. As analyses continue, these measures will be considered in relation to how the groups were formed. The overall goal will be to help educators determine best practices for group tests, to facilitate the least stressful and most educationally rewarding experience for students.

Poster # 8
Individual Differences in Morphological Awareness and Reading Skills
Presenter/s: Samantha Schreiber, Medha Swaminathan, and Teresa Naval
Advisor: Barbara Juhasz
Morphological awareness, the ability to recognize and manipulate morphemes, has been demonstrated to be an important component of reading fluency and comprehension. Morphological awareness works alongside orthographic and phonological awareness to facilitate reading. The present study investigates the relationship between the formation of compound words with morphological processing and other reading skills. Researchers observed individual differences in morphological processing through a series of reading

skills-based tasks: the Compound Remote Associate Test (CRAT), a spelling task, an analogy task with morphologically-complex items, a derived morphology shift task, verbal fluency tasks, the Author Recognition Test (ART), and a reading habits self-report. These tasks assessed derived and inflected morphological awareness, orthographic awareness, and print exposure. The results suggest significant correlations between the CRAT and five tasks: S-word and animal name generations, the ART, Spelling, and the Analogy task. These results suggest that morphological processing is related to verbal and semantic fluency, orthographic processing, and print exposure. Results from the present study may suggest that morphological awareness interacts with other reading processes to enable efficient reading. Individual-level differences may be implicated by individual performance on the tasks.

Poster # 9

Investigating the Precise Timing of Age-of-Acquisition Effects Using Eye Fixation Durations

Presenter/s: Lauren Yue
Advisor: Barbara Juhasz

Participants' eye movements were tracked while they read sentences that contained early- and late-acquired words. All of the words were nouns that were controlled for frequency, orthographic similarity, familiarity, imageability, and length. This study used eye tracking techniques in order to determine early-acquired and late-acquired age-of-acquisition (AoA) effects, as the duration of time one spends fixating a word corresponds to the time it takes to process and comprehend a word. Participants read through 140 sentences containing target words that were either early- or late-acquired words while their eye movements were recorded. The fixation types that were analyzed were first fixation duration, gaze duration, and total fixation duration; a match paired t-test was conducted to analyze the difference in processing speeds between early- and late-acquired words. Results from the current experiment demonstrated that early-acquired words are processed faster than late-acquired words. Early-acquired words received significantly shorter fixation durations for all three fixation types. These results indicate that there is a substantial processing advantage for early-acquired words, and that late-acquired words require a more effortful retrieval process to comprehend. The findings from the current experiment illustrate that the age at which one learns a word can have a significant impact on the rate at which one can process that word in adulthood. The results also suggest that reading and understanding words at a younger age can significantly benefit your reading speed as an adult.

Poster # 10

Task-Relevance of Self-Related Information Modulates Incidental Self-Reference Effect

Presenter/s: Jenne Johnson
Advisor: Kyungmi Kim

Pairing a target stimulus with self- vs. other-relevant information produces a memory advantage, even without any explicit task demand to evaluate self-relevance. We explored how task-relevance of the dimension in which self-relevant information is presented, a factor shown to influence self-priority effects in attention, affects the magnitude of this "incidental" self-reference effect (SRE). During incidental encoding, participants were presented with words in two different colors either above or below a name (the participant's own or another person's name). Participants performed either a name-relevant task ("Is the word above or below the name?") or a name-irrelevant task

("Is the word in red or green?"). Memory for each word and its associated source features (name, location, color) was subsequently tested. There was a SRE for item memory when the encoding task was name-relevant but not when it was name-irrelevant. The SRE for source memory marginally interacted with encoding task, and was significant only in the name-relevant encoding condition. These findings indicate that greater attention to self- vs. other-relevant information at encoding contributes to the incidental SRE for item and source memory.

Poster # 11

Conscious Perception of Self-Related Information is Necessary for Incidental Self-Reference Effect

Presenter/s: Amabel Jeon and Danielle Rothschild

Advisor: Kyungmi Kim

Self-related information has been found to affect subsequent behavioral judgments in non-self-referential tasks, even when presented subliminally, below one's conscious awareness. The current study investigated whether subliminal processing of self-related information would result in an incidental self-reference effect (SRE; memory advantage for items presented with self- *vs*. other-related information in the absence of any explicit task demand to evaluate self-relevance). During incidental encoding, participants were presented with words in two different colors either above or below a name (the participant's own or another person's name). The names were presented either supraliminally (for 2 sec) or subliminally (for 33 msec, with backward and forward visual masks). Participants' task was to make a simple location judgment for each word. Memory for each word and its associated source features (location, color) was subsequently tested. There was a SRE for both item and source memory when the names were presented supraliminally but not when they were presented subliminally. These findings suggest that different mechanisms may underlie the self-advantage in early visual processing *vs*. in memory.

Poster # 12

Attentional Focus as Source of Differing Effects of Emotion on Memory Formation

Presenter/s: Solange Resnik, Yvette Yun, and Mia Ray

Advisor: Kyungmi Kim

Self-conscious emotions (SCE; e.g., embarrassment) accompany more inward-directed, self-focused attention compared to non-self-conscious emotions (NSCE; e.g., anger). Importantly, inward-directed attentional focus has been shown to impair individual's ability to attend to information from external environment. The present study investigates how attentional focus induced by SCE vs. NSCE differentially affects individual's ability to form new memories. Participants first wrote a passage about the time they felt "very embarrassed" (SCE group), "very angry at someone" (NSCE group), or they transcribed a recipe (Control group). Then, in an ostensibly unrelated study, participants made location judgments for words presented in two different locations on the screen. Memory for each word and its location was later tested. The data collected to date showed no significant difference in self-reported levels of emotional valence and intensity of the remembered event between the SCE and the NSCE groups. Item memory was worse in the SCE group than in the NSCE group. Source memory accuracy did not significantly differ among the three emotion induction groups. Going beyond emotional valence and arousal by examining the role of emotion-induced attentional focus, the findings from this on-going study should advance our understanding of the psychological mechanisms by which emotion affects memory.

Poster # 13
Longitudinal Study of White Matter Changes in Jazz Musicians
Presenter/s: Han Yang Tay
Advisor: Psyche Loui
Creativity is the ability to produce work that is original and appropriate to an audience (Hollenberg, 1999). Jazz musicians express their creativity by improvising auditory-motor sequences that are aesthetically and emotionally rewarding. Previous studies have found positive associations between behavioural performance on creativity tasks and white matter integrity in mesial structures such as cingulate cortex and corpus callosum (Takuechi et al, 2010). In our previous investigation (Zeng et al, submitted), we found that compared to classical musicians and nonmusicians, jazz musicians have increased connectivity between the cingulate cortex (a mesial structure important for cognitive control) and endpoints of the arcuate fasciculus (a lateral structure important for perception and action), which also correlated positively with objective measures of musical improvisation behaviour. Here, we examine the longitudinal changes in white matter architecture of jazz musicians, classical musicians, and nonmusicians. Each participant was scanned twice, with a 3-5 month duration between the first and second MRI scan. Using Diffusion Tensor Imaging and probabilistic tractography, we measured changes in white matter structures such as the arcuate fasciculus and the corticospinal tract. Results suggest that jazz musicians undergo higher growth rates in the left arcuate fasciculus and right corticospinal tract, implicating the role of jazz musical training in neuroplasticity of these white matter structures.

Poster # 14
Increased Structural and Functional Connectivity in Jazz Musicians
Presenter/s: Tima Zeng
Advisor: Psyche Loui
The process of creativity entails the production of novel and original work appropriate in certain domains. One specific domain of creativity is jazz improvisation, which requires musicians to produce original and novel music in real time. Previous studies have found positive associations between behavioral performance on creativity tasks and white matter integrity in mesial structures such as corpus callosum, and lateral structures such as superior longitudinal fasciculus. We hypothesize that the ability to improvise is facilitated by increased structural and functional connectivity between mesial and lateral structures. We test this hypothesis by comparing diffusion tensor imaging and resting state fMRI of jazz improvising musicians to musician and non-musician control groups. DTI analyses include TBSS and probabilistic tractography of specific white matter pathways of interest. Compared to control group, jazz musicians have significantly higher FA in the anterior cingulate and corpus callosum (TBSS, $p < .05$ TFCE-corrected), and significantly higher volume and mean FA of arcuate fasciculus and pathways between left inferior frontal gyrus and corpus callosum (probabilistic tractography, $p < .05$). Resting state fMRI data show significantly more overlap among jazz musicians between regions that are functionally correlated with default mode network and language network areas ($p < .05$, voxel-corrected). Results support our hypothesis by showing enhanced structural and functional connectivity between mesial default mode areas and lateral language areas in jazz improvising musicians. This interplay may enable spontaneous creative behavior, such as in conversation.

Poster # 15
Structural Brain Differences in Jazz Improvising Musicians
Presenter/s: Cameron Arkin
Advisor: Psyche Loui
Jazz improvisation requires execution of creative musical ideas in real time. Here we investigate structural differences between the brains of improvising jazz musicians, musicians, and nonmusicians. We hypothesize that regions important for auditory-motor and cognitive control functions will show structural differences in jazz musicians compared to non-improvising musicians and nonmusicians. T1 images were acquired from nonmusicians (n=12), musicians (n=12), and jazz musicians (n=12) and run through the Freesurfer pipeline to identify surface area, volume, and cortical thickness values for each region. Our hypothesized regions of interest included the superior temporal gyrus, cingulate, and precentral gyrus, corresponding to auditory, cognitive control, and motor processes respectively. Results showed that Jazz musicians had significantly larger surface area and volume in the superior temporal gyrus, precentral gyrus, and rostral anterior cingulate in the left hemisphere (main effect of group, $p<0.0167$). In the right hemisphere a main effect of group was seen in surface area for the posterior cingulate cortex and superior temporal gyrus ($p<0.05$). Additional whole-brain analyses revealed differences in entorhinal cortex, inferior parietal lobule, and insula in the right hemisphere, and the fusiform gyrus, inferior temporal gyrus, and lateral occipital gyrus in the left hemisphere ($p<0.05$). However, these additional regions did not survive Bonferroni correction for multiple comparisons ($p<0.0015$). Results show that regions associated with auditory and motor processes as well as integration processes are significantly larger in jazz musicians, suggesting that these two networks are involved together in executing auditory-motor ideas into improvisational pieces of music.

Poster # 16
White Matter Correlates of Musical Anhedonia
Presenter/s: Sean Patterson and Emily Przysinda
Advisor: Psyche Loui
Music elicits emotions in all human cultures, but several recent reports have demonstrated specific musical anhedonia: lack of emotional response to music. Here we report a case study on BW, a subject who self-reported a socially-debilitating lack of emotion from music. Baseline perceptual testing showed normal audiometric responses and sensitivity to musical pitch. Physical Anhedonia Scale showed normal hedonic responses overall, but below-average scores on auditory items specifically. The Barcelona Music Reward Questionnaire (BMRQ) and the Aesthetic Experience in Music Scale both showed abnormally low (>3SD below published norms) scores on all subscales. Results from Diffusion Tensor Imaging showed that compared to controls, BW has less volume in white matter pathways between the Superior Temporal Gyrus (STG), Anterior Insula (AIns), Medial Prefrontal Cortex (MPFC), and Nucleus Accumbens (NAc). Bilateral tract FA between the NAc and AIns correlate with music reward score and emotional evocation subscore. Tract FA between left AIns and MPFC correlate with music reward score. Together, results suggest that white matter between emotion and reward areas are important for normal emotional responses to music, but it is only in more extreme cases of musical anhedonia where connections from auditory to emotion regions are compromised.

Poster # 17
Differential Effects of Audiovisual Integration in Congenital Amusia
Presenter/s: Sarah Knight and Max Bouvagnet
Advisor: Psyche Loui
Amusia is a disorder characterized by an inability to discriminate the pitch differences of tones. Here we investigate how the integration of audiovisual information might differ in amusics using behavior and EEG. Amusics (n=12) and controls (n=14) had EEGs recorded while performing an interval discrimination task in which they differentiated between a pair of tones at a small pitch interval (1-2 semitones) or a large interval from each other (9-10 semitones), and a pair of dots at either a short (1-2 units) or long (9-10 units) interval distance from each other. Trials included auditory, visual, and audiovisual (congruent and incongruent) conditions. Behavioral results show impaired performance during interval size estimation in amusics only in the audio-only and audiovisual interval conditions, but not in the visual-only condition. ERP results show smaller difference waves in amusics between large and small intervals in audio-only and audiovisual conditions, but not in the visual-only condition. ERPs also show an effect of audiovisual incongruence in controls but not in amusics. Together results show that amusics' difficulty with pitch discrimination spread to difficulties with audiovisual integration

Poster # 18
Musical Effects on Oscillatory Markers of Attention
Presenter/s: Tedra James and Gonçalo Sampaio,
Advisor: Psyche Loui
Brain.fm is a music software that claims to use the principle of auditory entrainment via neuronal oscillations to modulate attention, thus helping users maintain focus on their task at hand while they listen to Brain.fm music. We investigate this claim by comparing oscillatory activity in electroencephalography (EEG) recordings obtained during the Sustained Attention to Response Task (SART) while subjects listened to Brain.fm music, compared to Spotify music, pink noise, and a silent control. Comparisons of spectra of neuronal oscillations show higher activity in the beta and gamma bands (12-18 Hz and 30-50 Hz respectively) during the Brain.fm condition. These differences were observed during the entire listening session, but were especially synchronized to specific trials of the SART task. Results suggest that auditory stimuli can enhance attention through neuronal entrainment in the 30-50 Hz frequency range.

Poster # 19
Effects of Music on Mind-Wandering: Behavioral and ERP Study
Presenter/s: Molly Byrne, Kinsey Yost, and CJ Mathew
Advisor: Psyche Loui
Mind-wandering occurs when attention is diverted from the direct external task at hand towards the internal. The company Brain.FM claims that their algorithmically generated music can increase attention and help people focus by reducing mind wandering. To evaluate that claim, this study compared EEGs on participants while they performed the sustained attention to response task (SART) during different sound conditions. Half of participants listened to spotify music as a control condition, half heard pink noise. All participants had silence as third control condition. Behavioral responses to the task show above-chance levels of performance for all conditions. Reaction time variability, an index of attention fluctuations, increases over time during all control conditions but decreases during Brain.FM. This shows increased mind-wandering during all conditions but

decreased mind-wandering during Brain.FM. ERP analyses show a difference in the Brain.FM condition for Go trials where there is enhanced frontal-central negativity. The nogo trials show an expected frontal negativity (N200) followed by a parietal positivity (P300), in all conditions. Preliminary data during Go trials in the Brain.FM shows a smaller negativity at 300-400 ms post-stimulus, suggesting less of a need to reorient between successive trials of the sustained attention task. Results provide first behavioral and neural evidence for effects of algorithmically generated music on sustained attention.

Poster # 20

Effects of nicotine exposure and anxiety on motivation for gambling-like cues

Presenter/s: Trinity Russell

Advisor: Mike Robinson

One characteristic common to all gambling games is the uncertainty associated with the probability of reward delivery and the magnitude of the reward. Evidence suggests that uncertainty may powerfully enhance attraction for cues. However, it is unknown how nicotine or anxiety might contribute to cue-attraction. In the present study, we investigate the effects of nicotine (0.3 mg/kg, s.c.) on the desire for uncertain reward-related cues in male and female Long-Evans rats. During an autoshaping task, rats learned to associate a lever+tone cue (CS) with the delivery of sucrose pellet rewards (UCS) on either a certain or uncertain reward contingency. Subsequently, we tested the ability of gambling-like cues to serve as a conditioned reinforcer, and to promote motivation for the sucrose reward during a progressive ratio task. Finally, anxiety behavior was measured to examine its interaction with nicotine and uncertainty. Here, we demonstrate nicotine to enhance attraction to CS cues for certain conditions, but not for uncertain ones. Conversely, in the progressive ratio task, nicotine enhanced motivation to obtain the reward in uncertain conditions, but not for certain conditions. Understanding the effects of nicotine and uncertainty on cue-reactivity might provide insight into the comorbid relationship between pathological gambling and tobacco use. We demonstrate anxiety and sex-dependent differences in the presence of nicotine and reward uncertainty in rats. Such evidence might elucidate the comorbid relationship between pathological gambling and tobacco use.

Poster # 21

Reward Preference Induced by Optogenetic Central Amygdala Stimulation Persists Despite Competitive Physiological Motivation

Presenter/s: Olivia M. Lofaro

Advisor: Mike Robinson

Previous research has established that optogenetic stimulation of the central amygdala (CeA) generates an addiction-like preference for laser-paired reward. Here we examine if CeA stimulation-induced reward preference is maintained despite internal physiological consequences such as sodium depletion and conditioned taste aversion (CTA). For sodium depletion, rats infused with light-activated Channelrhodopsin (ChR2) or control virus (EYFP) were trained to press levers for either a sucrose reward paired with CeA laser stimulation, or an unpaired salt pellet. Rats developed a strong preference for the sucrose pellet, and were then repeatedly sodium-depleted in order to shift preference towards the salt reward. Here, EYFP rats shifted their behavior while ChR2 rats did not, maintaining a focused preference for the laser-paired reward despite their growing sodium appetite. For CTA, rats were presented with two novel sugar pellet flavors, one of which was repeatedly paired with the aversive agent lithium chloride. ChR2 and EYFP

rats were then given the option to lever press for the aversive reward paired with laser stimulation, or the unpaired alternative flavored reward. Here, EYFP rats demonstrated a stronger avoidance of the aversive pellet and reduction in laser preference compared to ChR2 rats. These results suggest that CeA stimulation produces a powerful preference that can overcome intense physiological motivation, which could provide insight into why addicts forego their own health and biological needs to pursue their preferred reward.

Poster # 22

Effects of Primed Cues on Risky Decision Making in Adolescent Rats

Presenter/s: Fred Ayres and Vaishvi Jhaveri

Advisor: Mike Robinson

We face risky choices everyday. However, increased attraction towards uncertain choices, such as in gambling, may be due to cues that inconsistently predict rewards. Notably, adolescents are more than twice as likely to be affected by problem gambling compared to adults. To assess how unreliable cues may impact risk preference in adolescents, we examine rats under a risky decision-making task, which presents a choice between a "safe" option with a certain reward and a "risky" option with an uncertain outcome of either a greater reward (a "win") or no reward (a "loss"). Initially, specific auditory cues play after each risky win or loss. During our testing period, these cues randomly precede the two options, but do not reliably predict the risky outcome. We then measure the change in risk preference following these cues. Priming the rats with unreliable auditory cues results in substantial variability in the percent change from initial risk preference. We define a subgroup of "super-performers" within our sample whose change in risk preference suggests sensitivity to priming cues as the "win" cue increases their risk preference and the "loss" cue decreases that preference. However, further investigation is needed to understand why they exhibit this behavior.

Poster # 23

The impact of junk-food on 'liking' responses to sucrose, saccharin and salt in obesity-prone and obesity-resistant rats."

Presenter/s: Ariel Ben-Ezra, Emma Halter, and Carli Poisson

Advisor: Mike Robinson

Diet-induced obesity is a growing problem influenced by the high availability of "junk-food". However, variance exists in the physiological consequences of these foods. This is reflected in rodent models, where a junk-food diet causes weight gain in some Sprague Dawley rats (gainers), but not others (non-gainers). We have recently shown that male gainers experience a blunting of pleasure or 'liking' (Robinson *et. al*, 2015). However, it is unclear whether these effects are the cause or consequence of excessive junk-food consumption. We can explore this question using selectively-bred obesity-prone (OP) or obesity-resistant (OR) rats to examine hedonic 'liking' and 'disliking' responses both before and after exposure to junk-food. We used male and female OP (n = 20) and OR (n = 20) rats to study taste reactivity responses to sucrose (1%, 3%, 9%), salt (1%), and saccharin (0.15%) solutions. We found that OP rats had trouble discriminating between different sucrose concentrations, and that hedonic responses to sucrose and saccharin were blunted in OP, but not OR, rats after junk-food exposure (Sucrose: $F_{(1,37)} = 4.20$, $p = 0.048$, Saccharin: $F_{(1,38)} = 4.551$, $p = 0.039$). Furthermore, junk-food exposure decreased aversive responses to salt in OP, but not OR rats ($F_{(1,39)} = 4.439$, $p = 0.042$). Ultimately, OP rats demonstrate a blunted pleasure response to sweet solutions initially before junk-food, as well as after chronic ingestion of junk-food.

Poster # 24

Are Casinos Operant Chambers for Humans?: Reward Uncertainty Increases Attraction to Cues

Presenter/s: Rebecca Shteyn, Callie Clibanoff, Hadley Walsh, Chi Chi Wakabayashi, Aida Julien, Freya Strasburg, Katie Ross, and Anna Knes

Advisor: Mike Robinson

Pathological gambling affects 1-2% of US adults each year and is characterized by an inability to stop gambling despite adverse consequences. For many gamblers, the lights, colors, and sounds in a casino act as cues that unknowingly trigger the urge to continue. These cues can predict reward and also incentivize behavior to pursue reward. While cues that reliably predict a reward are positive reinforcers of behavior, uncertainty for reward an also increase the appeal of a cue and positively reinforce. In our experiment, we examined the role of reward uncertainty and the attraction to incentive cues, even if the cue has limited predictive value. We conducted two experiments utilizing Pavlovian autoshaping with a predictive cue followed by an incentive cue and then a reward. The first experiment looked at rats in uncertain conditions to see whether they are more likely to interact with the incentive cue. We found that rats in uncertain conditions did indeed interact more with the incentive cue than the predictive cue. In a subsequent experiment, we examined whether rats in uncertain conditions would become so attracted to the incentive cue that they would momentarily ignore the reward. The results found uncertain rats actually interacted more with predictive cue and did not ignore the reward. The results help us better understand uncertainty's role in creating attraction to various cues that drive addictive behaviors, like gambling.

Poster # 25

Honor and Masculinity Among Latinos and European-Americans

Presenter/s: Lucy De Souza

Advisor: Patricia Rodriguez Mosquera

Previous research suggests that there are pan-cultural ideals of masculinity (Williams & Best, 1982; Rodriguez Mosquera, 2011). However, research has not yet examined how honor orientation influences which masculinity/masculine honor values are most important in different cultures. In Study 1, I measured European-American and Latin@/U.S. Hispanic men and women's appraisals and perceived emotional consequences of eleven masculinity/male honor threat situations. As expected, male participants felt more shame and perceived more harm to reputation compared to their female counterparts. Study 2 narrowed it focus on Latino/U.S. Hispanic and European-American men, who read one general masculinity threat and three male honor threat situations. Study 2 additionally included measures that assessed masculine honor orientation, gender in-group centrality, and gender in-group commonality. Analyses revealed cultural differences in the *threat to authority over the family* situation; Latino/U.S. Hispanic men found this threat situation more harmful to reputation and self-esteem and believed they would feel more shame and humiliation compared to European-American men. Regression analyses revealed the role that masculine honor and gender in-group centrality play in cultural differences in participants' responses. These studies contribute to the literature on masculine honor, suggesting that there is variation in the importance of certain masculinity/male honor values across cultures.

Poster # 26
Honor, emotions, and moral violations
Presenter/s: Yvette Yun
Advisor: Patricia Rodriguez Mosquera
What emotions do people experience after a moral transgression? The objective of this study was to examine the emotional and behavioral consequences of a moral violation through the perspective of honor. Previous research has shown that honor is closely related to a concern for one's reputation and social image, and the emotions of shame and anger (Rodriguez Mosquera, 2016). In this study, participants either imagined themselves violating the academic honor code by plagiarizing an essay, or not violating the honor code by choosing not to plagiarize. They were then asked a series of questions about their emotional appraisals, feelings, and concern for their reputation. As hypothesized and consistent with previous findings in research on honor, we found that participants who imagined a moral violation experienced a higher degree of negative emotions (e.g., shame), worried more about their reputation, and evaluated their behavior as more dishonorable. This research also demonstrates the reliability of the morality based honor scale, as well as reveals interesting gender differences in concern for honor and emotional experiences.

Poster # 27
Perspectives on Feminine Honor among Latino/a Americans and European Americans
Presenter/s: Maxine Lai and Sophia Antonio
Advisor: Patricia Rodriguez Mosquera
According to the multifaceted construct of honor, there are four major honor codes including morality based, family, masculine and feminine honor (Rodriguez Mosquera, 2016). Across different cultural and social groups, the importance of each code varies. Prior research has shown that gendered honor codes prescribe appropriate behaviors for men and women, thereby contributing to a culture's gender ideologies. The aim of this study was to investigate the role of culture on feminine honor at work, specifically comparing European American (individualistic, less honor-oriented) and Latino/a American (collectivistic; more honor-oriented) cultures. European Americans (n = 124) and Latino/a Americans (n = 125) were asked to respond to one of four scenarios. The scenarios manipulated (1) modesty (a key value of the honor code); and (2) the gender of the character in the scenarios (female vs. male). Modesty was manipulated as flirting behavior in a work context. Results show that the manipulations worked for both cultural groups. On average, participants "liked" the characters less in the flirting conditions when compared to the control conditions. Participants also found the characters to be less modest in the flirting conditions. Other key results and implications will be discussed.

Poster # 28
Gender and Honor
Presenter/s: Maya Dorn, Tatum Leclair
Advisor: Patricia Rodriguez Mosquera
Honor codes have been shown to have a basis on morality, masculinity, femininity, and family (Rodriguez Mosquera, 2016). Research on gendered honor codes (masculine and feminine honor), however, has not been conducted with groups of people that are moving away from a binary, concrete definition of gender. This study examined responses to perceived violations of gendered honor codes in the Wesleyan context, a

context characterized by multiple definitions of gender. Participants were exposed to an experimental manipulation in which they read a fake "WesCeleb" article, a regular feature of Wesleyan's student publication, the Argus, that interviews well-known, current seniors. There were three articles corresponding to each of the conditions: a feminine honor violation condition, a masculine honor violation condition, and a control condition. Measures included individual differences in the importance of gendered honor codes, emotional reactions to and opinions on the student featured in the "WesCeleb" article, and desire to change gendered honor codes. Key results and implications are discussed.

Poster # 29
Positive Empathy Does Not Affect Implicit or Explicit Attitudes
Presenter/s: Gaby Montinola
Advisor: Kathleen Schmidt
Previous research has found that perspective-taking can improve implicit and explicit attitudes toward stigmatized groups (e.g., Batson et al., 1997). Perspective-taking produces empathy (Batson, Early, & Salvarani, 2008), which occurs when one person shares the emotional experiences of another (De Vignemont & Singer, 2006). Positive empathy involves empathizing with positive emotions of others, while negative empathy involves empathizing with the negative emotions of others. Two studies explored whether perspective-taking instructions designed to produce positive empathy influence implicit and explicit attitudes. In Study 1, participants read a description of a woman with a mental illness after being given either positive empathy or negative empathy perspective-taking instructions or no instructions. In Study 2, participants were shown the image of a young Black man and asked to write about him with either instructions to be objective, perspective-take, perspective-take with a negative emotional focus, or perspective-take with a positive emotional focus; or no instructions. In both studies, the positive empathy manipulation did not impact implicit or explicit attitudes toward people with mental illness (Study 1) or Black people (Study 2). Positive empathy may not be a sufficient mechanism to reduce negativity toward stigmatized groups.

Poster # 30
Mortality Salience Does Not Always Produce Worldview Defense
Presenter/s: Shane Ross and KC O'Hara
Advisor: Kathleen Schmidt
Terror Management Theory (Greenberg, Pyszczynski, & Solomon, 1986) predicts that mortality salience, the accessibility of death-related thoughts, causes psychological distress that can be mitigated by embracing cultural worldviews. Several studies have demonstrated that mortality salience produces negative attitudes toward people who threaten predominant cultural values (e.g., Greenberg et. al, 1990). The present research attempts to replicate one such study. Participants were asked to write briefly about their death or about watching television. Then, they evaluated a pro-American essay and an anti-American essay written by foreign students. In the original study, reminding participants of their mortality produced larger attitude differences than the control condition such that the pro-American essay arguments and author were rated more positively than their anti-American counterparts (Greenberg, Pyszcynski, Solomon, Simon, & Breus, 1994). However, in our sample of Wesleyan students (n = 135), no such effects were found. While minor implementation differences between our study and the original may have obscured a reliable effect, we contend that mortality salience effects may not be generalizable to all populations.

Poster # 31

Comorbid Eating Disorder and Obsessive Compulsive Symptoms: The Role of Central Coherence, Cognitive Fusion, and Thought Suppression

Presenter/s: Ilana Ladis

Advisor: Caitlin Shepherd

Individuals with eating disorders (EDs) and Obsessive Compulsive Disorder (OCD) share the neurocognitive style of weak central coherence, meaning they exhibit local processing bias and global processing deficits (i.e., local-interference). Weak central coherence may cause individuals to fixate on details and get stuck in thought patterns such as cognitive fusion, which can lead to experiential avoidance and thought suppression. Prior research has examined the role of weak central coherence, cognitive fusion, and thought suppression on ED symptoms and OCD symptoms in clinical populations, but no study to date has examined both OCD and ED symptoms in a non-clinical sample. We examined how weak central coherence related to ED symptoms, OCD-related obsessions, cognitive fusion, thought suppression, and distress in female undergraduate students. Seventy-three participants completed the Navon Task as a measure of local-interference. Participants completed self-report assessments of ED symptoms, OCD-related obsessions, cognitive fusion, thought suppression, and distress. Statistically significant mediational relationships were identified resulting in a model linking local-interference to ED symptoms via OCD obsessions, cognitive fusion, thought suppression, and distress. These results suggest a relationship between local-interference, cognitive fusion, thought suppression, and distress in a non-clinical sample, providing support for transdiagnostic treatments and intervention efforts targeting these mediating variables.

Poster # 32

A Tale of Two Theories: Using Social Comparison and Objectification Theories to Explain the Relationship between Instagram use and Eating Pathology

Presenter/s: Kayla Schlenz

Advisor: Caitlin Shepherd

Previous studies have found connections between media consumption and eating pathology and used either Objectification Theory or Social Comparison theory to explain the relationships found. We explored the social media site Instagram in terms of eating pathology in the hope of understanding whether one of the two theories best explained relationships between eating pathology and the site. We asked 65 college students about their use of Instagram as well as questions about self-esteem and eating behaviors. Our results showed that Instagram users had higher shape concern compared to non-users. Frequency of tweaking selfies was related to shape and weight concern, as was perceived presentation of self in face-to-face interactions. Presentation of self on Instagram was related to eating concern and restraint. Self-esteem moderated the relationship between eating pathology and both selfie tweaking and presentation of self in face-to-face interactions, such that these relationships were only significant for those with low and medium self-esteem. Our results help shed light on Instagram use and eating pathology relationships, but more research examining motivations behind Instagram behavior are needed to support one theory over the other. This study indicates Instagram use should be taken into account with preventative and treatment measures for eating pathology.

Poster # 33
The Wesleyan Preschool Math Curriculum
Presenter/s: Mary Toomey
Advisor: Anna Shusterman
Converting research into practice is a difficult task that plagues many areas, including physical and mental health practices, policy, and education. The Wesleyan Preschool Math Curriculum was created to help bring research into preschools, specifically hoping to help teachers apply numeracy research in their classrooms. Preschool math skills are predictive of better outcomes in math, literature, and general academic success, so it is vital that all research is utilized effectively in school. Twelve games were designed based on current numeracy and education research. Throughout the design of the games, the teacher feedback has been greatly valued. Additionally, the games hoped to fill gaps in preschool math education that other curricula do not meet. Finally, the games are being tested and evaluated by 22 teachers from four schools in the Naugatuck area. The evaluation consists of four online surveys and focus groups, two of which have been completed. Thus far, we have received encouraging qualitative feedback, as well as high ratings (current average overall game score = 8.9/10). Teachers have also offered valuable suggestions for game alterations. We are excited to continue to hear both negative and positive feedback, which will be applied to the games as we finalize the curricula.

Poster # 34
The Development of a New Socioemotional Measure for Preschoolers
Presenter/s: Megan Dolan and Sara Dean
Advisor: Anna Shusterman
Early childhood is a crucial time to support socioemotional development, to prepare children for success in school, and to prevent adverse long-term life outcomes. Many interventions are being developed to support preschoolers in this area of growth. The success of these interventions relies on tracking changes in socioemotional knowledge and behaviors. There is a need for a simple, objective measure that is sensitive to short-term changes. Here, we began the development of such a measure, the Socioemotional Assessment (SEA). The SEA was shown to be easy, clear, and engaging, and we found validation through comparisons with the Social Competence and Behavior Evaluation, a well-validated teacher questionnaire. This initial study also clarified what adjustments must be made to improve a subsequent iteration of the measure. These results, while exploratory in nature, showed that the SEA could be used as a tool to provide rich explanations of children's socioemotional knowledge base. Experimenters can use this measure to test children easily and objectively, avoiding the bias inherent with often-used teacher or parent questionnaires. The success of this measure has implications for its possible use both by researchers in testing interventions and by teachers in better understanding their students.

Poster # 35
The Development of Children's Number Concepts: Learning "Two"
Presenter/s: Emily Kaplan-Levenson, Joy Adedokun, & Jordan Ellman
Advisor: Anna Shusterman
This poster presents three current experiments underway in the cognitive development lab, all targeting specific research questions regarding the processes by which children acquire understanding of the number word "two". Previous research shows that while children acquire number words at an early age, they develop conceptualization of

accurate numerical meaning later on. For example, typically, US children can recite a partial count list by age 2, and acquire the meanings of these words over the next 2 years. Early mastery of these words and related number knowledge is associated with later math achievement. Furthermore, learning these concepts is facilitated by hearing number words in context and speech through grammatical structure, so cross-linguistic variability in factors such as singular, dual, and plural marking may affect rates of learning. One study employs the Child Language Data Exchange System to investigate when children acquire an understanding of the meaning of "two", another uses a nonverbal numerical task to track exact-numerical quantity understanding in children, and the last explores how varying grammatical structure across languages impacts children's acquisition of the number word "two." Together, these studies aim to understand the mechanisms that support early learning, the role of early language input during number word learning, and the importance of linguistic and cultural diversity in the study of number word learning.

Poster # 36
Children's Acquisition of Counting
Presenter/s: Natalie May and Sifana Sohail
Advisor: Anna Shusterman
How much do children really understand about counting? Previous studies have shown that children begin to understand counting at age two and acquire the first few number words. By approximately 3 ½ - 4 years, children become cardinal principal knowers; they understand that the last word in a count list represents the total number of objects counted if, and only if, the three counting principles are followed. They use these principles--a stable order count sequence, one-to-one correspondence with objects, and last number as a representation of the total number of objects-- in order to count correctly. However, most studies have focused on children's counting of small sets. Recent experiments have shown that even cardinal principal knowers fail to follow the counting principles when asked to generate large sets of objects. These errors are surprising because many cardinal principal knowers can rote count to high numbers and are able to generalize their counting knowledge to produce set sizes smaller than 10. These differences in performance may be caused by the high performance demand in asking children to produce larger sets. In this study, we address this issue by using both a production task and a counting comprehension task to assess whether the errors made for large sets is due to high performance demand or caused by a lack of conceptual understanding. The counting comprehension task also assesses children's understanding of each counting principle as a function of the cardinal principle, providing greater understanding of the stages involved in children's acquisition of the cardinal principle. This study reveals the limits of children's understanding on the heels of passing the critical numeracy milestone of coming to understand counting. It provides greater insight into how children acquire and generalize numerical knowledge in the early stages of development.

Poster # 37
Church Attendance and Religious Coping Moderate the Association between Storm Exposure and Sleep Problems among Emerging Adults in Dominica
Presenter/s: Lauren Conte, and Leyla Wade
Advisor: Royette Tavernier
Although existing research has examined the impact of tropical storm exposure on emotional distress, no studies to date have examined the relationship between tropical

storm exposure and sleep problems among youth from Dominica – a developing island in the Caribbean. The purpose of the present study, therefore, was to examine the association between exposure to Tropical Storm Erika (TSE) and sleep problems; and further to determine whether *frequency of church attendance* and *religious coping* moderated this association. Participants were 188 emerging adults (66% female; *Mean* age = 19.65 years old, *SD* = 1.57 years) from Dominica, who completed an online survey at 6 months following TSE. Measures included demographics, Insomnia Severity Index, Brief COPE, church attendance, and emotional well-being (e.g., PTSD). Results based on hierarchical regression models indicated that both frequency of church attendance and religious coping moderated the association between storm exposure and sleep, such that higher storm exposure was associated with more sleep problems, but only among those who attended church more frequently and reported higher religious coping. Our findings suggest that emerging adults who were most negatively affected by TSE *and* had poorer sleep may have sought out religion as a way of coping with their negative experiences.

Poster # 38

Grit, Resilience, and Sleep: The Moderating Role of Meaning-Making among Youth from Dominica Following Tropical Storm Erika

Presenter/s: Martin Rubin, Nicole Brenner, Toys Koomplee, Laila Samy, and Olivia Footer

Advisor: Royette Tavernier

The experience of a natural disaster can have detrimental psychological implications for youth, but few studies have examined how the experience of a tropical storm affects perceived sleep problems. Furthermore, no studies have assessed this association with a sample of youth from Dominica – a developing island in the Caribbean. Based on the cognitive theory of psychological stress and coping (Lazarus & Folkman, 1984), the present study examined grit and resilience as concurrent predictors of sleep problems. Participants were 160 emerging adults (66% female; M_{Age} = 19.65 years old, *SD* = 1.57 years) from Dominica, who completed an online survey at 6 months following Tropical Storm Erika (TSE). Specifically, we explored whether grit and resilience would be associated with sleep problems among three meaning-making groups: i) individuals who reported learning no life lessons from their experience of the storm (*No Meaning* group); ii) individuals who reported learning a specific lesson about their experience of the storm (*Lesson* group) and iii) individuals who reported having gained deep insight from their storm experience (*Insight* group). Regression analyses showed that higher grit was associated with better sleep quality among the Lesson group; whereas higher resilience was associated with better sleep among the insight group.

Poster # 39

Physical Activity and Mental Health among University Students: Does Being a Student-Athlete Matter?

Presenter/s: Nicole Brenner, Mikaela Carty, Jamie Hom, Jessi Lord, and Danielle Rothschild

Advisor: Royette Tavernier

Past research demonstrates a link between higher physical activity and better mental health but one gap in the literature is whether being a student-athlete at university moderates this association. University athletes typically engage in higher levels of physical activity and have more regimented schedules than non-athletes, which may have implications for overall wellbeing. The present study, therefore, examined two

important research questions: 1) Does frequency of high-intensity physical activity (HIPA) predict mental health (i.e., depression, anxiety, and stress) among university students? 2) Does athlete status moderate the association between HIPA and mental health? Participants were 146 (67.6% female; M_{Age} = 20.29 years old, *SD* = 1.27) emerging adults at Wesleyan university. Participants completed an online survey, which included the following measures: *Demographics* (e.g., age, gender), *Depression Anxiety, Stress Scale* (21-items), and a single-item assessing HIPA. Results of hierarchical regression analyses (controlling for age, gender, and parent income) showed a significant interaction between HIPA and athlete status, such that higher frequency of high-intensity physical activity was significantly associated with lower anxiety but only among athletes (and not among non-athletes). Our findings have important implications for highlighting the context within which physical activity relates to mental health among university students.

Poster # 40

***"All the Single Ladies!"* Differences in Sexual Activity, Sleep Problems and Motivations for Physical Activity among Single and Coupled University Students**

Presenter/s: Jessi Lord, Nicole Brenner, Mikaela Carty, Danielle Rothschild, and Jamie Hom

Advisor: Royette Tavernier

Past studies indicate that individuals who are in coupled relationships generally report better sleep than those who are single. These studies, however, have failed to account for individual differences among single individuals (i.e., differentiating between those who choose to be single and those who have a desire to be dating). To address this gap, the present study examined differences in sexual activity, sleep problems, and motivations for physical activity (MPA). Participants were 127 (M_{Age} = 20.33 years old, *SD* = 1.30) students at Wesleyan University, who completed the following measures via an online survey: *Pittsburgh Sleep Quality Index (24 items)*, *Motives for Physical Activity Measure (17 items)*, sexual activity (1 item) and romantic relationship status (1 item). Results of two separate Analysis of Variance Tests (males, females) indicated that single females who were *not* wanting to date had significantly *better* sleep quality and lower endorsement of the 'appearance'-related MPA, relative to coupled females. Furthermore, single females engaged in less sexual activity relative to coupled females. Interestingly, these differences were not significant among males. Among males, however, those who were in coupled relationships had a higher endorsement of the 'competence'-related MPA relative to single males who were *not* wanting to date.

Poster # 41

Chronotype Differences in Nomophobia, Procrastination, and Sleep among Emerging Adults at University

Presenter/s: Ella Sinfield, Toys Koomplee, Ray K. Peters, & Luka Lezhanskyy

Advisor: Royette Tavernier

Past research indicates that an evening-type chronotype may be a risk factor for poor emotional adjustment. However, more research is needed to determine whether chronotypes differ in other lifestyle-related variables. The present study examined chronotype differences in three areas of psychosocial adjustment among emerging adults: nomophobia (i.e., fear of being without one's cell phone), procrastination, and sleep. Participants were 146 emerging adults (67.6% female; M_{Age} = 20.29 years old, *SD* = 1.27), who completed the following measures via an online survey: *Morningness-Eveningness Questionnaire* (19 items); *Pittsburgh Sleep Quality Index* (24 items),

Procrastination Scale (10 items) and the *Nomophobia Questionnaire* (10 items). Analysis of Variance Tests indicated that evening-types had significantly longer sleep onset latencies, poorer perceived sleep quality, higher procrastination and higher nomophobia, relative to morning-types. Evening-types, however, did not significantly differ from morning-types on self-reported sleep problems. Overall, neutral-types generally fell in between the two extremes of morning-types and evening-types. Results suggest significant differences in lifestyles between morning- and evening-types, which may have important implications for other aspects of university functioning, such as academics and emotion regulation. Overall, our findings provide insight into factors that may help explain individual differences in university adjustment among emerging adults at Wesleyan University.

Poster # 42

What is community? Narratives from older Chicagoans"

Presenter/s: Fred Ayres, Joshua Cardenas, Eunice Lee, Serene Murad, Ananya Subrahmanian, Louisa Winchell, and Mingxuan “Michelle” Tan

Advisor: Shellae Versey

“Community” may hold different meanings across groups. Specifically, social, relational and geographical ties may be particularly important for midlife adults as they transition to older age. In this paper, we identify dimensions of community among midlife African Americans and European Americans. Using interview data from the Foley Longitudinal Study of Adulthood (FLSA; N =159; aged 55–58) and qualitative geographic information science (GIS), a mixed-methods approach was used. Major themes were categorized and paired with GIS analysis to create a comprehensive picture of how perceptions of community corresponded with actual physical spaces. Findings indicate multiple themes such as connections to people, occupational and recreational social networks, and geographic location as being important in defining community for midlife adults. Connections to previous research and future directions are discussed.

Poster # 43

Realistic Group Conflict Theory and Asian Americans’ Attitudes toward Interracial Couples

Presenter/s: Yun Ju "Roxie" Chuang

Advisor: Clara Wilkins

This research examines Asian Americans’ attitudes toward different combinations of interracial couples. It further explores the underlying processes behind their varying attitudes. I found that Asian men held more negative attitudes toward White male/Asian female couples compared to Asian male/White female couples, whereas Asian women’s attitudes did not differ between the two interracial couples. Realistic Group Conflict Theory (RGCT) suggests that when groups compete for scarce resources, it leads to negative intergroup attitudes (Sherif & Sherif, 1953). Drawing from RGCT, I proposed that when a particular combination of interracial couple is perceived of as threatening an individual’s access to potential partners, the individual holds more negative attitudes toward couples of that combination. Consistent with my hypotheses, I found that the scarcer Asian men perceived Asian women to be, the more negative Asian men’s attitudes were toward White male/Asian Female couples. Furthermore, after controlling for Asian men’s perceived competition with White men for Asian women, Asian men’s attitudes toward White male/Asian female couples and Asian male/White female couples no longer differed from each other. This research concludes that Asian American men’s

attitudes toward interracial couples are likely driven by perceived competition from White men for Asian women.

Poster # 44
Politics as a Predictor of Religious Sentiments
Presenter/s: Sheri Reichelson
Advisor: Clara Wilkins
Perceptions of Christian discrimination, perceptions of religious multiculturalism, and prejudices against low-power groups previously have been found to be correlated (Reichelson, 2016). The 45th president's rhetoric has focused on these themes, expressing opinions against Islam and instituting policies like Executive Order 13769 (the travel ban). This study explored whether being primed with specific political figures affects sentiments towards Islam and Christianity, and related opinions towards the travel ban and terrorism threat. Manipulations were non-significant, but political party affiliation significantly related, with Republicans expressing more Islamophobia, increased perceptions of anti-Christian bias, and greater support for the travel ban.

Poster # 45
Donald Trump's Influence on Racial Identification and White Conservatism
Presenter/s: Gabrielle Ebron, Kadijah Matthews, Jamie Hom
Advisor: Clara Wilkins
Can priming President Donald Trump affect individuals' racial identity and sense of American identity based on political orientation? American adults perceive that race relations are either staying the same or worsening compared to past years ("Views of Race Relations," 2016). Donald Trump's presidency has increased racial divisions in this country, as evidenced by the numerous hate crimes in the months following his election (Jenkins, 2017). Based on this knowledge, we wanted to evaluate the influence of Trump on participants' racial identification, sense of American-ness and attitudes towards other racial groups. A group of 100 participants completed a "memory task" that required them to remember details about well-known politicians. White participants primed with Trump demonstrated that the higher their levels of conservatism, the more they identified with their racial group.

Poster # 46
Individual Differences in Morphological Awareness and Reading Skills
Presenter/s: Taylor Dillon, Aaron Feliciano, and Vivian Liu
Advisor: Clara Wilkins
Is the Trump era leading to a rise in sexism in the United States? The present research focuses on the possible effects that a Donald Trump prime has on participants' scores on an ambivalent sexism inventory, importance of gender identity, and/or opinions on transgender bathroom policies. We hypothesized that when compared to those not primed with Trump, participants presented with a Trump prime would (1) score higher on an ambivalent sexism scale, (2) identify more strongly with their gender, and (3) be more averse to transgender bathroom reform. Participants were primed with Donald Trump, or one of two control groups (Joe Biden or John McCain). There were no significant differences on any of the scales between participants in the Trump condition and the controls. There were, however, significant correlations between each scale in each condition. Simply reading quotes from Trump does not affect one's attitudes.