THE 8th ANNUAL
DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF KANSAS

Symposium for Undergraduate Psychology Engagement & Research

To recognize and honor undergraduate research and community engagement during the 2016 - 2017 academic year.

Thursday, April 27, 2017
3:00 - 5:00 P.M.
The Jay Space
Kansas Memorial Union
University of Kansas  
Department of Psychology  

Symposium for Undergraduate Psychology  
Engagement & Research  

2017  

Awards to be presented at the Psychology Recognition Ceremony  

Best Honors Thesis Project  
Best Independent Study Project  
Best Class Project
(1) Sex, Alcohol, and Gender: College Students’ Attitudes and Opinions About Sexual Consent as a Function of Gender and Level of Intoxication
Sarah King, Brittany Brower, Daniel Whedon (Dr. Charlene Muehlenhard)
Honors Thesis

In 2013, two extremely intoxicated Occidental College students had mutually initiated sex. Subsequently, “John” was expelled for having sex with “Jane” while she was incapacitated. “John” then sued the College, alleging gender discrimination. Universities are emphasizing sexual consent, but consent can become complicated when alcohol is involved. Furthermore, some people conceptualize consent as gendered, regarding men as responsible for obtaining women’s consent, but not vice versa. In this study, we investigated students’ attitudes about sexual consent in heterosexual encounters when one of the individuals involved is intoxicated.

METHOD: Introductory psychology students completed an online survey. Participants were randomly assigned to read one of four scenarios about two students who engaged in mutually initiated sex. This presentation will focus on the two scenarios in which one of the students—either the woman or the man—was intoxicated, and the other was sober. Participants were asked open- and closed-ended questions about the scenario, including whether each student had consented and who was responsible for getting consent. We currently have data from 185 respondents.

RESULTS: Analyses are underway. We are investigating the following questions: Do participants’ opinions vary depending on the gender of the intoxicated student? Does participant gender interact with the gender of the intoxicated student? What themes are present in participants’ qualitative responses?

CONCLUSION: This study will help us understand college students’ attitudes and opinions about sexual consent as a function of gender and level of intoxication. These results could inform future educational programs and university policies.

(2) The Influence of High School Athletes’ Perceptions of the Motivational Climate on Athletic Identity and Academic Endeavors
Jacob Chamberlin (Dr. Mary Fry)
Honors Thesis

Athletics are an important part of many students’ lives, and can enrich their overall student experience (Hansen, Larson, & Dworkin, 2003). Poux and Fry (2015), employing Achievement Goal Perspective Theory, found that Division I collegiate athletes who perceived a high caring/task-involving climate on their sport teams were likely to report more engagement in their academic and future career preparation as well as a high athletic identity. These researchers suggest that athletes’ commitment to both athletics and academics can complement one another. These relationships with college athletes have not yet been examined with high school athletes. The purpose of this study, then, was to examine the relationship between high school athletes’ perceptions of the motivational climate to their academic motivation, academic endeavors, athletic and academic identities, and coach and teammate support.

Athletes (N = 228: 75 females & 146 males; M_age= 15.8 years, SD = 1.09) participating in fall sports at high schools located in the Midwestern region of the U.S. completed a survey that included the measures of interest. A canonical correlation analysis revealed one significant function [L = .50, F (18) = 7.68 (p < .001); The canonical correlation was .67 with 44% overlapping variance]. In accord with the loadings, athletes who perceived a high caring/task-involving climate reported higher career self efficacy, engagement in their academic and future career preparation, academic identity, and team and coach support. A caring/task-involving motivational climate in sport settings may be critical in developing high school athletes’ ability to pursue academic endeavors outside of sports and feel supported.
The Effects of Guilt and Social Approval on Mood
Sandra Bertram Grant  
*(Dr. Christian Crandall)*  
Honors Thesis

People feel compelled to suppress their prejudices when social norms are inconsistent with their feelings. When people release their suppressed prejudices, the Justification-Suppression Model (Crandall & Eshleman, 2003) predicts that people will feel guilty for expressing counter-normative and potentially shameful feelings, yet simultaneously feel a sense of relief and an increase in positive mood. In Study 1, the expression of suppressed prejudices (e.g., toward blind people and Mexicans) caused an increase in the negative mood response, consistent with guilt and shame. In Study 2, we plan to conceptually replicate Study 1, moving the study into a social setting and manipulating whether an audience approves or disapproves of their prejudicial speech. We anticipate that the expression of suppressed-but-approved prejudice will lead to an increases in positive mood.

Identifying Initiation of Firing in Multiple Neuronal Populations
Liran Ziegelman, Robert Kass, Robert Turner  
*(Dr. Michael Vitevitch)*  
Honors Thesis

In order to understand the function and necessity of brain structures, it is crucial to be able to accurately collect, analyze, and interpret neural data. One of the most important questions in neuroscience, therefore, is how to determine the initiation of event-related firing in a single cell recording. Current techniques used to determine the point of change from spontaneous to event-related firing (traditional onset latency analysis) creates a distribution of firing rates based on a baseline period of neural activity. This is then compared to every data point after the baseline period using a one-sample t-test until a firing rate is found that is considered statistically divergent from the initial baseline period. This methodology raises questions due to its reliance on population variances. Doing so would likely skew the predicted onset latency in cells with a high variance at baseline and ultimately bias results in comparisons of populations with different levels of variance at baseline. This project aims to determine the accuracy of traditional onset latency analysis, propose alternative modeling solutions to determining initiation of firing in multiple neuronal populations, and to analyze the effect of using a new, modeling methodology on motor control theories.

Adjustment to Retirement Through Social Identity Change
Michael Akira Tjong  
*(Dr. Nyla Branscombe)*  
Honors Thesis

Major life transition often involves changes in identity. Coping with identity change can be a challenge for some individuals, and failure to adapt may negatively impact psychological well-being. Research informed by the social identity approach suggests that belonging to more social groups can help maintain and promote well-being in times of change. To better understand the importance of group identities for coping with change, we collected survey data from KU emeritus faculty (*N* = 60) about their retirement experience. The survey assessed a variety of theoretically relevant constructs (e.g., identification with the university, perceived compatibility of ingroups) and several indicators of well-being. We hypothesized those retirees who report better social identity adjustment would also tend to report greater levels of well-being. Results from multiple regression analysis generally support our hypothesis, and suggest some factors (i.e., social isolation, ingroup compatibility) emerge as stronger predictors of well-being than others.
(6) Endocrine Disruptor Awareness (EDA): The Role of Message Framing and Application of the Health Brief Model in Predicting and Determining Health Behavior Change
Cora Burgoyne, CeCe Wolfner
(Al. Michael Vitevitch)
Honors Thesis

There is growing research on the possible threats that accompany exposure to endocrine disrupting chemicals (EDC). EDCs are chemicals that can interfere with the body’s endocrine system and therefore can cause adverse effects on a variety of vital mechanisms (i.e., development, metabolism, behavior, reproduction, etc.). The sources of exposure to EDCs are diverse and vary widely around the world. Additionally, the majority of research shows that in utero exposure to such chemicals can be most harmful, meaning these chemicals may have effects on our future generations. Given the threat to public health posed by EDCs, it is important to raise awareness of EDCs and implement interventions that teach individuals, specifically college aged individuals, how to avoid them. Unfortunately, there is little research on health messaging about EDCs. Accordingly, this research is designed to investigate whether the principles of message framing can be used to influence one’s health beliefs (i.e. endocrine disruptor awareness) and can in turn, better predict and determine a health behavior change (i.e. organic product consumption). With the use of the Health Belief Model as theoretical basis for such change, we predict that by implementing the use of gain-framed messages (in comparison to loss-framed messages), perceived susceptibility and severity of the risks associated with EDCs will increase among college-aged students. In addition, we hypothesize these gain-framed messages will increase the awareness of benefits associated with buying organic products, and as a result, increase the likelihood that such individuals will engage in the beneficial behavior change of switching to organic products.

(7) Gender, Alcohol, and Consent
Brittany Brower, Daniel Whedon, Sarah King
(Al. Charlene Muehlenhard)
Honors Thesis

Sexual consent policies are being debated on college campuses nationwide. These policies are complicated by gender and alcohol. For example, in a 2015 incident at Occidental College, two extremely intoxicated students had mutually initiated sex. Subsequently, “Jane” filed a Title IX complaint, and “John” was expelled. “John” then sued the college for gender bias. The purpose of this study was to investigate attitudes toward sex between two people as a function of gender and intoxication. Psychology students completed an online survey. They were randomly assigned to read one of four scenarios depicting sex between two people who were both intoxicated, both sober, or discrepant with respect to intoxication. Participants rated whether they thought each character had consented, whether each had taken advantage of the other, etc. Most participants regarded the sober character as having coerced the intoxicated character, regardless of the characters’ gender. When both characters were intoxicated, participants regarded the man as slightly more coercive than the woman. Some participants regarded both characters as having consented; some regarded neither as having consented; a few regarded one character, but not the other, as having consented. Qualitative responses clarified participants’ thoughts about the incident. Overall, participants regarded the sober character as having coerced the intoxicated character, regardless of the characters’ gender. When both characters were intoxicated, participants regarded the man as slightly more coercive than the woman. Some participants regarded both characters as having consented; some regarded neither as having consented; a few regarded one character, but not the other, as having consented. Qualitative responses clarified participants’ thoughts about the incident. Overall, participants regarded the sober character as having coerced the intoxicated character regardless of gender. When both characters were intoxicated, participants regarded the man as slightly more coercive. However, there seemed to be no general consensus regarding the topic of consent when both characters were intoxicated.
Drunk or Sober: Students’ Thoughts About Ambiguous Sexual Activity When Level of Intoxication Varies
Daniel Whedon, Brittany Bower, Sarah King
(Dr. Charlene Muehlenhard)
Honors Thesis

Background: Universities are developing and implementing training on consent as a method of preventing sexual violence. However, important questions remain surrounding grey areas of consent, including the question of who is responsible for obtaining consent when both individuals are intoxicated. The purpose of our study is to analyze college students’ thoughts on ambiguous sexual scenarios with varying levels of intoxication. Method: Presently, we have data from 251 participants, including 103 men, 147 women, and 1 individual who identified as genderfluid. Participants answered questions about a hypothetical scenario in which two students engaged in sexual activity when (a) the male student was intoxicated, but the female student was not, (b) the female student was intoxicated but the male student was not, (c) both students were intoxicated, and (d) neither of the students were intoxicated. Results and Implications: In scenarios where both the students were intoxicated and neither student was intoxicated, students rated the responsibility for obtaining consent as equally distributed between the male and female characters. However, in the scenarios where the male student was intoxicated but the female student was not, and the female student was intoxicated but the male was not, the burden of responsibility for obtaining consent shifted significantly toward the sober individual.

The Effect of Cyclophilin Deficiency in Attenuating Hyperphosphorylated Tau-Induced Apoptosis in Mitochondria in Mice
Yee Ming Khaw, Erika Northcutt
(Dr. Shirley ShiDu Yan)
Honors Thesis

Alzheimer’s Disease (AD) affects 1 out of 6 individuals of ages above 65 and 1 out of 3 individuals of ages above 85. It is a chronic and fatal neurodegeneration disorder that is characterized by memory loss, personality changes, cognitive decline, depression and other symptoms. Alzheimer’s Disease is the only top 10 cause of death without a treatment or cure. The hallmarks of AD pathology are aggregated amyloid-beta protein (Aβ) and hyperphosphorylated tau (HPT). One of the earliest signs of AD pathology is mitochondrial dysfunction that is marked by Aβ and HPT induced apoptosis. A key element of the induced apoptotic signaling event in the mitochondria has been identified to be Cyclophilin D (CypD). CypD causes apoptosis by opening the mitochondrial permeability transition pore (mPTP) to increase the cell’s vulnerability to calcium influx and activate apoptotic mechanisms. In this study, we find that by knocking out CypD in mice with Aβ pathology, Aβ-induced apoptosis is attenuated. This suggests that CypD inhibition drugs may be a potential treatment to reduce neuronal death by reducing Aβ- and HPT-induced apoptosis and attenuating mitochondrial dysfunction.
(10) Attempt to Produce Lineages of Caenorhabditis Elegans with Human Tau Protein in its Chromosome as an Experimental Model in the Study of Alzheimer’s Disease
Katherin Morales
(Dr. T Chris Gamblin, Dr. Brian Ackley)
Honors Thesis

Alzheimer’s disease affects over 5 million Americans over the age of 65 (11% of that population). The underlying mechanisms of this disease are unknown; however, two different accumulations of proteins are thought to be the main cause of neuronal cell death in Alzheimer’s. These accumulations are neurofibrillary tangles composed of aggregated tau protein, and Aβ (amyloid-beta) senile plaques composed of aggregated beta amyloid. The focus of this study was tau protein only, because: (1) unlike beta amyloid, it has a known function, (2) it is found in other brain diseases in the absence of beta amyloid, and (3) its aggregation correlates with severity of human dementia, whereas beta amyloid aggregation does not. The nematode worm Caenorhabditis elegans is a powerful genetic model to study the effects of human proteins involved in important biological processes, such as neurological disorders. We therefore would like to produce C. elegans expressing human tau protein in their neurons. However, the chance that a protein will be experimentally incorporated in the chromosome of C. elegans through the process of integration is random. The purpose of this study was to see if we could successfully integrate human wild type tau protein into the chromosome of C. elegans. Three percent of the worm lines produced successfully integrated human tau protein into their chromosomes. The expected success rate was 1-3%. These worm lineages will be used in the future to study human tau dysfunction by serving as a reference to P301S and 3PO tau protein mutations.

CATEGORY: INDEPENDENT STUDY

(11) Love Songs as Stress Buffers: Experimental Investigation
Ting Ai, Emma Murrugarra, Dustin Brockert, Tristan Hays
(Dr. Omri Gillath)
Independent Study

In the current study we examined the effects of listening to love songs on stress. We investigated whether listening to love songs can help reduce stress, and whether these effects are moderated by attachment style. Participants were randomly assigned to one of six conditions in a 3 x 2 factorial design. They then completed either a stress-inducing or a neutral speech task, followed by an opportunity to listen to a happy, sad, or neutral love song. Physiological measures (heart rate and skin conductance) and psychological measures assessed stress, attachment style, and mood. We hypothesized that listening to a happy love song attenuates stress, and that these effects would be weaker among people high on attachment anxiety or avoidance.
What Factors Affect Our Emotional Reactions to Recalling Negative Memories
Malkie Hematillake, Yasmin Herdoiza, Robyn Kelton (M.A.), Lauren Holland, Robert Curtis, Melissa Willer (Dr. Andrea Greenhoot)
Independent Study

For most people, thinking about stressful memories prompts negative emotions, but the nature and intensity of their emotional reactions likely depends on many factors. This study looked at changes over time in how people feel after recalling their negative memories, and whether those changes are related to the conditions of recall, personal characteristics, and memory characteristics. Participants recalled three negative memories in one of two randomly-assigned conditions: an Audience condition, in which participants recalled to a researcher, and a No Audience condition, in which participants recalled their memories into a microphone with the researcher in the next room. All memories were audio-recorded for analysis. After each memory, participants filled out a questionnaire regarding their levels of post-recall positive and negative emotion and their history of sharing the memory. They also completed measures of depressive symptoms and life satisfaction. Participants returned to the lab 12 to 24 days later for a follow-up appointment. All participants again recalled three negative memories (without an audience) and were then prompted to individually recall any Time 1 memories they had not already recalled at Time 2. Participants filled out the same questionnaires after each memory. Analyses will examine whether there are significant differences in positive and negative feelings reported between initial and follow-up recall. Based on previous research, we expect to see a significant decline in negative feelings reported after the follow-up recall. Additional analyses will look at how changes in affect are related to the audience manipulation, memory sharing, gender, and measures of mental health.

Being Gay or Homosexual: The Effect of Labeling on Anti-Gay Attitudes
Chad Miller, Adrian Villicana (Dr. Monica Biernat)
Independent Study

Social group labels impact public perception of these groups. For example, gay slurs, as opposed-to category labels (gay/homosexual), cue negative impressions of gay individuals. However, research assumes “gay” and “homosexual” to be equally neutral. In addition, research suggests that heterosexual women have more favorable perceptions of gay people than do heterosexual men. The current study examined the effects of category labeling (“gay” versus “homosexual”) on evaluations of gay women/men as a function of participant sex. We predicted that participants would report greater anti-gay prejudice toward homosexual men than toward gay men with a larger difference found among female participants. Predictions for gay women were exploratory. The above pattern may yet emerge; however, it is also plausible that labeling does not influence perception of gay women because people generally tolerate gay women. To test our predictions, we recruited 200 heterosexual participants from Amazon’s Mechanical Turk (an online research system). All participants completed two anti-gay attitude measures (explicit, "old-fashioned" prejudice and subtle, "modern" prejudice) regarding gay men, gay women, homosexual men, or homosexual women. Results suggest that labeling didn’t influence explicit prejudice, but did influence subtle prejudice. Straight men reported similar levels of prejudice toward homosexual men and gay men, but reported more prejudice toward homosexual women than gay women. Straight women reported less prejudice toward gay men than homosexual men, but reported more prejudice toward gay women than homosexual women. We suggest that the labels "homosexual" and "gay" influence straight individuals’ perception of gay women and men. Implications will be discussed.
Women tend to experience mood disorders at disproportionately higher rates than men, yet little research has focused on female-specific health contributions to this phenomenon. Hormone regulation, specifically the menstrual cycle, was targeted for investigation due to its important role in mood, sleep, and behavior. Specifically, it was predicted that women with irregular menstrual cycles, a form of hormone dysregulation, were more likely to experience increased symptoms of menstrual distress, sleep disturbance, mood disturbance, and rate of cognitive error. To investigate these differences among women, female subjects were recruited from Amazon Mechanical Turk (MTurk) to participate in a longitudinal study for the duration of one full menstrual cycle. Results of this study support the hypothesis that irregular women are more likely to experience increased menstrual distress. No other significant results were found; however, trends in the data suggest that irregular women may also experience increased symptoms across sleep disturbance, mood disturbance, and cognitive error. Limitations of sample size and statistical techniques are discussed, along with implications for future research and the utilization of MTurk in longitudinal designs.
The Role of Context in Cognitive Performance
Rucha Kandlur, Anna Stumps, Layne Bozick
Class Project PSYC 625; Dr. Evangelia Chrysikou

We investigated the effects of faulty expectations on performance and physiological arousal due to stress. Participants were administered the revised Life Orientation Test (LOT-R) followed by a task of 10 difficult anagrams and a post-task questionnaire. For the anagram task, the participants were randomly assigned to an incongruent and congruent group. The incongruent group was misinformed that the anagrams were easier than they actually were. Electrocardiography (ECG) and electrodermal activity (EDA) recordings measured heart rate and skin conductance, respectively. Our results showed superior anagram performance by the congruent group; however, the difference between groups was not statistically significant. There was no significant difference in the mean physiological measures between the two groups. This study contributes to our understanding of the effects of incongruent verbal persuasion on task performance.

The Effects of Rap Music on Stereotype Activation and EDA
Christine Waisner, Recheal Le
Class Project PSYC 625; Dr. Evangelia Chrysikou

Symbols or items that are often associated with a specific culture have been shown to activate stereotypes against that culture. Rap music in particular has been found to elicit stereotype activation against African-American individuals. In the current study, the effects of rap music on stereotype activation to African-American and Caucasian stimuli was compared to pop music and no music effects. Electrodermal activity (EDA) was measured to determine level of arousal, as an indicator of activation to passages and race during passage reading and question answering. Using two-way ANOVA, no significant main effects or interactions were found for race or music manipulation on passage or EDA response, suggesting no stereotype activation. More research needs to be done on other populations to further determine the relationship, if any, between music, race stimuli, and stereotype activation. Keywords: stereotype activation, EDA, music

Effects of Racial Attentional Bias on Physiological Responses
Alex Stover, Mandi Ward, Bernadette Chinn
Class Project PSYC 625; Dr. Evangelia Chrysikou

The purpose of this experiment was to investigate the degree to which African American men are perceived as threatening. Selective attention to the perception of threat was measured by response time to facial stimuli. Ten Caucasian and ten African American males volunteered to participate in a dot-probe paradigm task that consisted of viewing faces of African American and Caucasian males. During the task, the participants’ electrodermal responses (EDA) were recorded. We predicted that participants would show faster reaction times (RTs) and greater mean EDA amplitude in response to African American facial stimuli. Results showed no significant difference in RT when dot location was congruent with the target stimuli. There was also no significant difference in mean EDA amplitude when dot location was congruent with facial stimuli. These results suggest that there were no attentional biases influenced by race when participants were presented with facial stimuli.
(19) The Impact of Personality on Electrodermal Response Due to Duchenne Smiling
Allyson Jones, Matthew Pfannenstiel, Jonathan Zhu, Katie Morales
Class Project PSYC 625; Dr. Evangelia Chrysikou

According to the facial feedback hypothesis, voluntary movement of the skeletal muscles involved in facial expressions can influence emotional experience and behavior. This study examined the relationship between personality type (extraversion, introversion) and EDA responses elicited by Duchenne smiling (smiling with the mouth and eyes). Twenty-four participants were instructed to smile for 15 seconds, followed by a five second relaxing period. Participants were considered introverted if they scored below 50 on the International Personality Item Pool. Introverts had higher overall EDA compared to extraverts. Changes in EDA response for all participants were statistically different than zero. The change in EDA for introverts and extraverts was not statistically significant from one another. These findings support the facial feedback hypothesis and suggest purposeful smiling can lead to a change in sympathetic nervous system activity. These findings also imply extraverts and introverts have similar EDA responses to Duchenne smiling.

(20) Levels of Arousal in Non-Depressed Individuals During Mood Alteration
Sara Kuckelman, Jennifer Boyce, Heather Jackson, Ryan Primovic
Class Project PSYC 625; Dr. Evangelia Chrysikou

The objective of the current study was to determine the differences in arousal levels between non-depressed individuals who have undergone mood alteration via Musical Mood Induction Procedure (MMIP) and those who have not in order to determine whether non-depressed individuals placed in a negative mood respond similarly to clinically depressed individuals. More specifically, it was hypothesized that those in the MMIP condition would have decreased levels of arousal to positive stimuli and increased arousal levels to negative stimuli. EDC and ECG were used as physiological measures of arousal, while Brief Mood Introspection Survey (BMIS) was used as a rating for mood. The results showed those in the MMIP condition had significantly higher scores on the BMIS, implying the negative mood alteration was successful and showed significantly higher levels of arousal for both positive and negative stimuli. Further research is necessary to explore arousal levels directly between depressed and non-depressed individuals.

(21) Tinder Use and Objectification
Rachel Yu-Ru Tan
Class Project PSYC 410; Dr. Omri Gillath

The mobile app Tinder is gaining more and more popularity within today’s society, providing a platform for mutually interested users to chat, meet up, and possibly begin a romantic relationship. Literature has shown that there is a link between Tinder use and the objectification of women. However, most studies on the topic to date are largely correlational studies. Therefore, the present study takes a different approach by carrying out an experimental research to investigate the relationship between Tinder use and the tendency to objectify romantic partners. In the study, 412 participants were randomly assigned to view either 100 photos or 10 photos, which either had accompanying biographies or not. Participants were then asked to indicate whether they would like to initiate contact with the person in each photo. In all conditions, the participants’ tendency to objectify romantic partners were assessed.
In the current study, the associations between relational mobility and both partner and self-objectification were examined. Participants were primed with either high or low relational mobility primes, and then reported their identification with the items assessing partner and self-objectification. Attachment style, residential mobility, and sociocultural attitudes toward appearance were all controlled for. Participants (n=506) completed the survey online, and it was hypothesized that those exposed to high relational mobility prime would not have high measures of partner and self-objectification.
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