

Undergraduate Honors Projects – 1999-2000

David Boyer

The Relationship between Religiosity and Depression with Discordant Intimate Relationships

Advisor: Dr. Hy Hops

Pre-existing questionnaire data, from Oregon Research Institute's (ORI) SMOFAM project, from 274 participants for the 1996-1997-assessment year (T-10), were examined for relationships between relationship discord, depression, and religiosity. Religiosity was defined as religious belief and religious activity. For the purpose of this study, altruism and social support were also associated with religious activity. Hence, there were four factors, along with general religiosity, that were examined: religious belief, religious activity, altruism, and social support. The objective was to determine if a relationship exists between reduced incidence of depression and the four factors mentioned above, within discordant intimate relationships. This research was deemed important for three reasons: (a) the high incidence of co-morbid marital discord and depression found in much of the recent research, as well as in the present study, (b) religiosity, altruism, and social support have been associated with both relationship satisfaction and depression, (c) there is little research to be found in this area. It was hypothesized that religiosity, in general, would be significantly correlated with depression regardless of relationship satisfaction. Further it was hypothesized that altruism, social support, religious activity, and religious belief would all be found to be significant predictors for depression scores regardless of relationship satisfaction. Finally, it was thought that religious belief would be found to be the least predictive and altruism the greatest predictor for depression scores regardless of relationship satisfaction. The hypothesis regarding the relationship between general religiosity and depression was not supported, with the exception that a significant positive relationship was found between religiosity and depression within discordant relationships. The hypothesis that altruism, social support, religious activity, and religious belief would all have predictive value for depression scores as well as the hypothesis for the ordering of predictive ability of altruism and religious belief remained unsupported as well. An interesting significant interaction was found between relationship satisfaction and religious activity. Within discordant relationships, the incidence of depression was high for subjects with high religious activity, while the incidence of depression was low for those with low religious activity. Within satisfying relationships, the incidence of depression was low regardless of religious activity. One possible explanation for these findings is that people in discordant relationships and are depressed are searching for a solution to their problems by participating in religious activities and have yet to find relief.

Kate Brainard

Premenstrual Dysphoric Disorder

Advisor: Dr. Scott Monroe

Premenstrual dysphoric disorder (PMDD) is a proposed psychiatric disorder. Much controversy has been raised in response to a diagnostic category pathologizing an otherwise normal biological function– the menstrual cycle. PMDD is considered to be a subset of the more common and less severe premenstrual syndrome (PMS). Many of the issues that have obstructed the future direction of PMS are also questionable factors in the construction of the diagnostic category for PMDD. Some common problems related to PMDD are 1) the rating of symptom severity, 2) there is no etiology for the disorder, 3) many women with premenstrual complaints are present with an additional, comorbid disorder 4) there are no known effective treatments, 4) most women with premenstrual complaints will not meet the strict diagnostic criteria for PMDD. The nature of this paper is to review some of the recent literature on PMDD and address the issues which contribute to the problematic construction of PMDD.

Jessica Calhoon

Gender and the Development of Visual Sequence Learning

Advisor: Dr. Mary Rothbart

Examined the gender differences in the development of visual sequence learning, using context dependent sequences, relating this development to executive attention. A random sample of 43 infants ranging in age from 24 – 25 months (11 females, 11 males) and 30 – 31 months (10 females, 11 males) were used for the analysis. Participants were analyzed by coding anticipations to ambiguous and unambiguous sequences within a given sequence. The visual sequence task consists of cartoon characters accompanied by beeping sounds presented on 3 computer monitors, labeled 1, 2, and 3, in a predetermined sequence (1213 or 3231 for counterbalancing). Unambiguous sequences are those in which the participants anticipate, or look to 1 when at 2 or 3. Ambiguous sequences are those in which the participants are looking at 1 and must go to 2 or 3. Ambiguous sequences require the development of context dependent learning capabilities, and thus demonstrate the development of executive attention. In both age ranges using a univariate analysis of variance, female participants approached significance with better mean performances than the male participants under the ambiguous condition. The nonambiguous condition produced means indicating that males 24 – 25 months performed better than females of the same age. However, the 30 – 31 month old female unambiguous means were consistent with the results from the ambiguous condition. According to the results, female infants 24 – 25 months and 30 – 31 months are approaching significance with respect to demonstrating earlier development of context dependent learning capabilities in ambiguous associations when compared to male infants of the same age. Although no results showed statistical significance, it is concluded that females may indeed develop the mechanisms necessary to perform context dependent learning associations at an earlier age than males.

Jessica Craine

Juvenile Detention Size and Behavior Dynamics

Advisor: Dr. Tom Dishion

This study examined juvenile detention facility size and behavior dynamics therein. Participants consisted of 70 youth in the custody of Lane County. Pre-existing data from the month of February was analyzed using the Pearson's correlation. Participants were scored by detention staff on a series of behaviors. It was hypothesized that group size and points would be negatively correlated. No correlation was found between the total population size and behavior dynamics. Once the lowest in the hierarchy of youth was removed a negative correlation was found. A positive correlation was found for the lowest level possibly due to lack of scoring.

Mariah Davis

Emotional and Cognitive Control

Advisors: Andrea Berger and Dr. Mary Rothbart

Cognitive control is involved in attentive, purposeful control of normally automatic mental events. A common example of cognitive control is the Spatial-conflict task, which is a matching task designed such that the stimulus and response are spatially incongruent during half the trials. Slower RT have been consistently found in the spatially

incongruent trials. Emotional control is involved with the processing of stimuli which is emotional in content but the emotionality is not a relevant aspect of the task (such as a Stroop color-naming task in which color words are replaced with neutral/threatening words). RT are consistently slower when subjects deal with emotional stimuli. A considerable amount of research has found links between cognitive and emotional control. The purpose of our study was to construct a spatial conflict task with either positive or negative emotional pictures to see any interaction between the two constructs. 44 subjects participated in the study; for half of them the task was designed so that the spatial conflict would be vertical (up and down) and for the other half the spatial conflict task was horizontal (left and right). Subjects were asked to match pictures that appeared on computer screen to either a button which read “Animal” or one that read “Non-Animal” The task was set up on a computer touch-screen such that subjects pressed an upper or lower box in the vertical trials and a left or right box in the horizontal trials. A within subjects (repeated measures) ANOVA was run, and although in both groups there were consistent differences between the spatially compatible/incompatible trials as well as the emotionally positive/negative trials, no interaction was found between spatial compatibility and emotional valence. Results did show that subjects consistently responded slower to the upper position (vertical trials) as well as to the left hand side (horizontal trials). We hope to eliminate this confounding effect, and perhaps in refining this experiment will yet uncover an interaction between cognitive and emotional control.

Ryan M. Hampton

Effects of Minority Status, According to Gender, on Preference of Group Formation

Advisor: Dr. Holly Arrow

Minority status, according to gender, in groups is seen as critical in determining whether a person will prefer to form with the opposite or same gender. “Skewed” groups contain a large percentage of one gender (numerical “dominants”) over the other gender (rare “tokens”), while “even” groups contain equal numbers of both genders. The results from the experiment show that both men and women when put in a minority or “token” position according to gender are more likely to want to form a group with individuals who are of the same gender. In contrast, when the numbers of men and women in a group were an identical ratio, both men and women were more likely to want to form a group with the opposite sex. This study discusses the relevance of these results to whom people prefer to form with and work with in group settings.

Heather Harvey

Exploring the Relationship between Inhibitory Control and Private Speech

Advisor: Laura Jones and Dr. Mary Rothbart

The present study investigated the relationship between inhibitory control and private speech in children (18 to 36 months). Increased private speech use in children 18-36 months may aid children in regulating their actions via planning and keeping the goal in mind, including inhibiting distractions in their immediate environment or errors that may interfere with reaching the stated goal. This relationship was tested with 63 children total from different age groups who performed the Block Task, an inhibitory control task. The childrens’ verbal ability ratings (MacArthur Communicative Inventory) and caregiver ratings of inhibitory control (TBAQ-R) were examined as well. The results showed that with age, the childrens’ use of narrative and corrective speech increased until 36-months when the use of narrative and corrective speech decreases. The Block Task scores also increased with age. There was a significant positive relationship between the score and the use of narrative speech. A significant positive relationship between inhibitory control and private narrative speech did not occur. Thus, the results show that age plays a larger factor in private speech development and inhibitory control development but they may also

affect one another. However, this is all based on what task is used and the Block Task may not be the appropriate task to test the private speech variable. The older children may have found the task easy enough to internalize their private speech and not speak as much. Future research should include a battery of tasks in order to have enough coding of speech and to consider inhibitory control.

Linda Ivy

Direction or Dimension: How Will I Choose?

Advisor: Dr. Sara Hodges

Preference judgment strategies were examined in 175 college students who were asked to rate pairs of car descriptions. The cars either shared 3 positive features and had 2 unique negative features, or else shared 3 negative features and had 2 unique positive features. Each car also had one feature (gas mileage or odometer mileage) that could be directly compared between the two cars (common dimension). Past research has shown that participants using feature-matching strategies tend to “cancel out” shared features and focus their judgments on the unique features of the second object (direction of comparison strategy). Other studies have shown that participants prefer an option that ranks more favorably on a common dimension, regardless of other features (dimension strategy). In this study, stimuli were arranged so that the car ranked higher on the common dimension was never the car that would be favored by direction of comparison. In addition, some participants were encouraged to view the common-dimension feature as a shared feature by adding a category label (i.e., “good gas mileage”). Participants’ evaluations of the cars indicated no clear preference for either strategy, except that participants who accurately recalled the positive common dimension feature for both cars tended to prefer the car that was higher on this dimension, possibly indicating use of the dimension strategy.

Nga-Lok Lam

Anxiety-Linked Performance Deficit and Suppression Mechanism

Advisor: Dr. Robert Mauro

The research examined the hypothesis that anxiety-related performance deficit is caused by a weakened inhibitory mechanism, and the deficit will be most obvious when working memory capacity reached its limit. In the current experiment, 30 participants were first asked to memorize a digit string with either a high or low memory load condition, and then complete a suppression task developed by Gernsbacher and Faust (1991). Participants’ reaction latencies under two memory load conditions and two state anxiety conditions were measured and compared. Contrary to our expectations, there was no significant main effect of memory load on decision latencies of the suppression task. Furthermore, subjects’ performance under the high state anxiety condition was significantly better than their performance under the low anxiety condition. Some explanations for the findings as well as future research directions are discussed.

Tanya Nahman

Children’s Error Detection and Correction Abilities

Advisor: Dr. Mary K. Rothbart

The current study examines developmental trends in children's ability to detect and correct errors, as a macroconstruct of executive function. Zelazo et al (1997) defines four stages in which a child proceeds from recognition of a problem to its solution. These stages include: Problem representation, planning, execution-intending/rule use, evaluation-error detection/correction. This study focused on the evaluation stage of problem solving involving error detection and correction. The process of error detection/correction is an important part of self-regulation in that it is problem solving to reach a goal. Participants in this study included 21 children at 18 months old, 24 children at 24 months, 21 children at 30 months and 15 children at 36 months. Each participant was presented with three increasingly difficult stages of a nesting cup task and asked to stack the set of cups, graded by size, to reach the goal of a completed stack. Significant developmental trends were found in the children's ability to correctly nest the cups, as well as complexity of error correction strategies. In addition, relationships between parent-report temperament scores, particularly those aspects dealing with executive function, and performance on the nesting cup task will be examined.

Nicole Scaife

Expectations and Memory for Recurrent Menstrual Pain

Advisor: Kristi Klein

The purpose of this research was to determine the relationship between expectations for pain, experienced pain, and remembered pain for women experiencing menstrual pain. Similar studies with patients experiencing acute pain have found a stronger relationship between expectations and remembered pain than between experienced and remembered pain. We hypothesized parallel results with recurrent menstrual pain such that there would be a stronger relationship between expected and remembered pain than between experienced and remembered pain. We were interested in possible methods by which we could improve participants' recall in order to strengthen the relationship between experienced pain and remembered pain. In one treatment group, participants were given memory cues to help them remember the pain, while the other treatment group was encouraged to recognize any discrepancy between expectations and experienced pain. We hypothesized that these two groups would remember their pain more accurately than a control group. Finally, we sought to establish pain anxiety as a moderator of the relationship between experienced and remembered pain. We predicted that participants who were highly anxious about pain would be less accurate at remembering their menstrual pain than those who were less anxious. We did not confirm our first two hypotheses; instead we found, as might be predicted intuitively, that the best predictor of remembered pain was experienced pain, rather than expected pain. Further, we found no effect for either of the treatment groups. While we did not confirm our third hypothesis regarding pain anxiety, we did find an effect such that the high-anxiety participants were better at remembering their recurrent menstrual pain.

David Smith

The Demand/Withdraw Pattern in Lesbian Relationships

Advisors: Heather Scott and Dr. Jennifer Freyd

This study focuses on the prevalence of the demand/withdraw pattern of conflict in lesbian relationships. In this pattern the demander pressures the other for change through blame and criticism, and the withdrawer actively avoids the discussion or retreats from the conversation. Forty lesbian couples engaged in two videotaped discussions, one in which partner A requested a change in partner B, and one in which partner B requested a change in partner A. Observers assessed the levels of 15 behaviors. Scores for demand and withdraw were calculated and compared to scores for heterosexual couples whose interactions had been rated using the same rating system. Results showed that lesbian women were significantly less withdrawing than heterosexual men. It was also found that demand on one's

own issue was significantly more likely than on one's partner's issue, and that withdraw on one's partner's issue was significantly more likely than on one's own issue. Lesbian women were significantly less demanding on their own issue than heterosexual women were. The pattern of demanding on one's own issue and withdrawing on one's partner's issue was evaluated and it was found that lesbian demand-lesbian withdraw in homosexual couples was significantly less likely than female demand-male withdraw in heterosexual couples.

Suzanne Stieglitz

Inhibitory Control and Children's Theory of Mind

Advisor: Dr. Lou Moses

This study examined the relationship between young children's developing theory of mind and their inhibitory control abilities. Prior studies have shown that young children have more difficulty understanding the mental state of belief than understanding desire and pretense. Two explanations have been proposed for this asymmetry. One is that young children have a basic conceptual deficit in this area which leads to difficulty with false belief tasks but not with desire and pretense tasks. The other is that the conceptual requirements are the same but that the inhibitory demands of the tasks differ. The goal of my study was to test whether the inhibitory demands of false belief tasks are in fact greater than those of desire and pretense tasks. 45 three- and four-year old children were given a verbal intelligence measure, a battery of inhibitory measures, and a variety of theory of mind tasks assessing their understanding of belief, desire, and pretense. Surprisingly, we found that performance on the belief tasks was not significantly different from performance on the desire and pretense tasks. However, consistent with the inhibitory explanation, performance on false belief tasks, but not on desire and pretense tasks, was significantly correlated with inhibitory control after the effects of age, sex, and verbal intelligence were controlled. This evidence suggests that developments in inhibitory control may play a crucial role in changes in false belief performance in the preschool period and may explain why children have had greater difficulty with belief than with desire or pretense in previous studies.

Sarah Thompson

Street Youth: Identifying the Roadblocks that Keep Them from Improving Their Lives

Advisors: Dr. Tom Dishion and Keith Harris

Twenty-five street youth in and around Eugene, Oregon filled out an eight page, 104-item questionnaire consisting of demographic information, planning ability and life skills assessments, social networking questions, and scales for motivation, hope, and self-esteem. It was hypothesized that youth who had been on the streets longer would have lower levels of motivation and life skills, as well as poorer planning ability. It was further hypothesized that street youth would score lower on a hope scale than at-risk youth with homes, and that street youth would report more relationships with deviant peers than the other youth.

Andrea Wulf

Vividness, Risk Perception, and Individual Differences

Advisor: Dr. Ellen Peters

Vividness, risk perception, and individual differences were examined in an experiment in which paper mill employees were participants. Two forms of a questionnaire were distributed: one with vivid scenarios, and one with non-vivid. Each questionnaire contained general (societal) and specific (to paper mill environment) risk questions, as well as six scenarios about work related risks. It was hypothesized that vivid scenarios would elicit a higher perception of risk than non-vivid. This hypothesis was confirmed. The relationship between specific and general perceptions of risk was also examined and it was found that as perceptions of general risk increased, so did perceptions of specific risk. The BIS/BAS (Carver & White, 1994) and Big 5 MiniMarkers (Saucier, 1994) were used to evaluate personality factors. Reactivity to negative events (BIS and Emotional Stability) was found to be higher as risk perception increased. This effect was even greater when post scenario risk perceptions were examined.