

# Undergraduate Honors Projects – 1998-1999

## **Katherine Becker**

Traditionality of Preschool Teachers and Stereotypicality of Child Activity Ratings

**Advisor:** Katherine Pears

This study examines the relationship between preschool teachers' gender role traditionality (as measured by the Attitudes Towards Women questionnaire) and how stereotypically teachers rate toys as being appropriate for boys and girls. The female teachers with experience with three to five-year-old children rated fifteen toys on how appropriate they are for boys and girls both from a personal point of view and the point of view of an average person in society. I hypothesized that experience and traditionality will be negatively related to stereotypicality of personal toy appropriateness rating. I also hypothesized that "girls' toys" (as previously rated by undergraduate raters) will be rated more stereotypically than "boys' toys." Finally, I hypothesized that teachers will rate toys more stereotypically from society's point of view than from a personal point of view.

## **Kay Brick**

A Rose By Any Other Name: Individual Differences in Ambiguous Voting Decisions

**Advisor:** Dr. Ellen Peters

Previous research has suggested that how voters feel about the sound of a political candidate's name may guide their choices in the polls. The present study employed an experimental paradigm and supported the hypothesis that affect toward names influences voting behavior in a mock election. It was found that, on average, subjects voted for the more positive name 54% of the time. Unexpectedly, subjects low in experiential, emotional information processing were more likely to vote for the positive name (56%) compared to subjects high in emotional processing (52%). Future research investigating the proportion of the voting public falls into each of these categories could determine what effect this "name bias" has on actual voting.

## **Laura Claxton**

An Examination of the List Length Effect

**Advisor:** Dr. Michael Anderson

The purpose of this honors project is to examine the relationship between theoretical organizations of memory structures and the recall of items from memory by specifically examining the List Length Effect. The List Length Effect states that as the length of a list of items increases the percentage of correct items recalled decreases. This project compares two possible theories as to why this increasing inhibition or interference with recall occurs. One is called the Ratio-Rule and the other is known as Retrieval-Induced Forgetting. The Ratio-Rule states the items will be increasingly more difficult to recall as the length of the list increases because more items are proportionally in competition with one another in order to be recalled. Retrieval-Induced Forgetting argues that the retrieval of items from memory becomes increasingly more difficult as the length of the list increases because each time one item is retrieved from memory all of the other items on the list are being suppressed or blocked. As the number of items

recalled increases, the number of suppressions also increases, making recollection of the remaining items increasingly difficult. I hypothesize that by controlling the order in which the words from a list are recalled, I will be able to demonstrate that Retrieval-Induced Forgetting explains the memory processes behind the List Length Effect. I will compare an identical critical 10 word set across three increasing list lengths (n=28, 38, 48) and expect to find that when the order of recall has been controlled for, the average percentage recall for the critical word set will be identical across increasing list lengths, thereby demonstrating that retrieval plays a part in the List Length Effect phenomenon.

### **Meghan Fallenstein**

The Relationship of Life Events and Early Sexual Abuse to the Severity of the Depression in Adult Women

**Advisor:** Kate Harkness

The purpose of this study is to examine the relationship between severe life events experienced in adults as assessed by the Life Events and Difficulties Schedule (LEDS), childhood sexual abuse assessed by the Childhood Care and Abuse Interview (CECA), and severity of depression. Twenty-nine women, diagnosed with unipolar depression, were evaluated. I predict that those with a severe adult precipitative event will exhibit greater severity than those without an event. Similarly, those with childhood sexual abuse will experience greater severity than those with no abuse.

### **Jennifer A. Freeman**

The Role of Perceived Motives in Evaluating Ambiguous Courtship Behaviors

**Advisor:** Dr. Bertram F. Malle

Research on how people perceive potentially sexual behaviors has primarily focused on specific behaviors (for example touching, eye contact, body language, closeness of two people) rather than on motives behind these behaviors. The present study explores people's evaluations of ambiguous courtship behavior that is held constant, while the motives for the behavior were manipulated to suggest friendliness, flirting, or sexual advancement. Undergraduate students (N=106) read a vignette consisting of one of six possible scenarios in which a male student forms a plan to introduce himself to a female student. Manipulations included the motivation behind the agent's action (either friendly, flirting, or sexual advancing) as well as the level of premeditation (spontaneous versus premeditated execution of the plan). Results showed that people evaluated the same behavior worse when its motive was sexual than when it was friendly or flirting. Effects were strongest for evaluations of the agent's character and his intention, but not his action. No differences in evaluations occurred as a result of the premeditation manipulation. This study confirms that people pay attention to subtle differences in motives when evaluating an agent or interaction. Furthermore, despite heightened media attention to sexual harassment, people still consider flirting a positive interpersonal behavior, more akin to friendliness than to sexual advance.

### **Jasmine Freese**

Multisystemic Interventions for Violent Juveniles and Their Families: A Coordinated Effort of Juvenile Justice and Mental Health Professionals

**Advisors:** Robert O'Brien & Dr. Tom Dishion

This project presents an overview of the Multisystemic (MST) model for treating serious antisocial behavior in adolescents and their families. The model includes two therapeutic professionals: a Family Therapist who provides parent training with a focus on family strengths and resources, and a Behavioral Support Specialist who assumes a coach position for juvenile offenders and uses positive-reinforcement principles to intervene as problems occur. The Lane County Department of Youth Services, in collaboration with the Center for Family Development and the Oregon Social Learning Center have combined efforts to form the Violent Offender Rehabilitation and Treatment Project (VORT) in Eugene, Oregon. Statistically significant preliminary findings of this empirical study conducted with violent offenders aged 12-19, suggest that delinquency has multiple determinants that should be addressed with traditional probation and an intensive community- and family- based approach, using wraparound service philosophy.

### **Wendy Hatcher**

Detection of Deception: Non-Verbal Cues in Lie Detection

**Advisor:** Dr. Robert Mauro

Lying and lie detection are common aspects of interpersonal communication. The goal of the present study was to develop a comprehensive system for identifying and coding behaviors related to deception. It was hypothesized that non-verbal body language would increase lie detection. Six non-verbal behaviors were coded in a sample of 20 subjects. Subjects were students who scored either high or low on a paper and pencil test of psychopathy and parolees or non-parolees. Both groups were videotaped during a mock job interview. Preliminary analyses suggest that few non-verbal behaviors increase lie detection above chance level.

### **Angela Laurita**

The Concept of Intentionality Underlying People's Judgments of Criminal Behavior

**Advisor:** Dr. Bertram Malle

The present study explored how people use the concept of intentionality in the context of legal decision making. The study compared a recent empirically-based model of people's folk concept of intentionality to legal and philosophical models. The model of people's folk concept of intentionality predicts that people are sensitive to particular (often subtle) components of intentionality (e.g., content of intention, presence of skill). To test this sensitivity, subjects read descriptions of several criminal murder cases that have led to disagreements among legal and philosophical scholars. Each case hinged on one or two critical components of intentionality, and the study tested whether people would consider these components in their case judgments. People read and discussed the cases in groups, formed joint judgments about whether the defendant committed intentional murder or unintentional manslaughter, and justified their judgments. Twenty-five groups of two to three subjects participated. Analyses of their justifications showed that for each case, groups were sensitive to one or two particular (the predicted) components of intentionality, whether or not they judged the behavior to be intentional. Moreover, their intentionality judgments were predictable by the perceived presence or absence of these particular components. The present results have implications for legal and philosophical models of intentionality and point to several future research directions.

### **Elizabeth McDonald**

## Cortisol's Role In Exam Expectation

**Advisor:** Kristin Penza

Cortisol levels elevate during times of stress, which has been a helpful biomarker in the scientific study of stress. Cortisol levels elevate in many individuals before and during exams (Spangler, 1997); it is this area of research that I am particularly interested in. I hypothesize that those students with lower scores on the STAI and who indicate greater confidence levels will perform well on the exam will exhibit lower cortisol levels before the exam and will have lower cortisol levels after the exam than those students who indicate less confidence in their performance both before and after the exam. Subjects were volunteer students enrolled in a biological psychology course at the University of Oregon taking their final examinations. Subjects were asked to fill out a questionnaire before the exam including the STAI and a cortisol bioassay; then, after the exam, they were asked to fill out another questionnaire and assay. Results were insignificant except correlating pre-exam and post-exam cortisol levels for a variety of reasons discussed below.

## Patricia Montgomery

The Relationship Between Personality Fragments in Dissociative Identity Disorder and Type and Frequency of Childhood Abuse

**Advisor:** Dr. Jennifer Freyd

The relationship between child abuse (CA), and emotional trauma is well represented in literature, as is the relationship between trauma and dissociative Identity disorder (DID) formerly called multiple personality disorder (MPD). However, studies examining this relationship in more detail are needed to help identify the association between specific types of abuse and psychological and physiological problems for earlier identification and treatment. The present study narrows specifically to hypothesize that the relationship between the type and frequency of early CA in intrafamilial situations, with little or no emotional support, are related to the number of personality fragments, or dissociative ego states exhibited in DID. A voluntary survey of local clinicians revealed that negative home environment and sexual abuse are both prominent factors in DID. The relationship between the number of fragments and frequency of abuse is marginally significant, and the relationship between the number of fragments and ritualistic abuse is significant.

## Nugil Murrell

Prediction Relationship Satisfaction in College Couples

**Advisor:** Keith Harris

The Present paper examined the relationship between relationship satisfaction and a multitude of positive relationship variables. Predictors were chosen to represent a wide range of positive influences on relationship satisfaction and included the following: self-esteem, self disclosure, humor, sexual satisfaction, commitment, and perception of partner's masculinity/femininity. The first hypothesis states that the full model will account for a significant portion of the variance in relationship satisfaction in couples. A second objective of this study was to determine exactly what variables made the most unique contribution to relationship satisfaction. This was done using a forward regression. Fifty University of Oregon undergraduates currently in committed dating relationships completed a packet of questionnaires. Regression analysis showed that the full model explained a significant portion of the variance of relationship satisfaction. Forward regression revealed that commitment, happiness, and partner's warmth accounted for 64 % of the variance in relationship satisfaction. Past research has tended to focus on negative

variables (i.e. conflict) to the exclusion of positive variables. Results indicate that positive predictor variables contribute a great deal to relationship satisfaction. Implications for future research are discussed.

### **Karen Patterson**

Plasticity and Changes in NMDA Subunits

**Advisor:** Dr. Barbara Gordon-Lickey

We wish to demonstrate a correlation between changes in N-Methyl-D-Aspartate (NMDA) receptor composition and changes in plasticity in the visual cortex. To do this, we stained tissue slices from Long Evans rats of ages P14, P30, and P90 for the NMDA receptor subunits NR2A and NR2B. We used immunohistochemistry to stain the NR2A subunit for its protein, and in situ hybridization to stain the NR2B subunit for its message RNA. After staining the tissues, we counted the cells labeled only for message RNA, the cells labeled only for protein, and the cells labeled for both message and protein. The cell counts were graphed. Although the total amount of cells with NR2B and NR2A decreased over time, the decrease was greater for cells with NR2B. The decrease was sharpest between P14 and P30, with relatively little change occurring between P30 and P90. We conclude that the amounts of NR2A and NR2B subunits in NMDA receptors change during development, and that these changes are coincident with the previously established time period of plasticity. Given that the NR2B subunit decreases more, our results suggest that this subunit most likely plays a role in plasticity. In the future, we hope to manipulate the plastic period and receptor composition to be able to better understand the nature of the relationship between them.

### **Elise Peltier**

The Effects of Age and Presentation Differences on Empathic Accuracy

**Advisor:** Dr. Sara Hodges

The purpose of this research was to examine variables affecting empathic accuracy (one's ability to correctly infer the thoughts and feelings of others). Past research has shown that individuals are more empathically accurate towards a person when they perceive themselves as similar to that target individual. Therefore, one might expect college-aged subjects to empathize with an elderly target less than a similarly aged target. The medium in which participants are presented the target individual may also affect their empathic accuracy. Our second hypothesis was that subjects who are shown videotaped recordings of the targets relating their problems would show more empathic accuracy than subjects who read transcripts of the targets describing the same problems. And lastly, we hypothesized an interaction, such that the difference in the level of empathic accuracy between the college-aged and the elderly target would be larger in the video condition than the transcript condition. In order to test these hypotheses, subjects either watched videotapes of two targets (one college-age student and one elderly adult) describing a current problem, or they read the same interviews in transcript form. The subjects then inferred the thoughts and feelings of the targets in order to measure empathic accuracy. Our first two hypotheses were confirmed, showing that college-age participants were more accurate inferring the thoughts and feelings of the college-aged target than the elderly target, and those who watched videotapes were more accurate than those who read transcripts. The predicted interaction, however, was not significant.

### **Lynn Sconyers**

## An Investigation of the Hypothesized Association Between the 5-HTTLPR Polymorphism in the Serotonin Transporter Gene and Trait Neuroticism

**Advisor:** Dr. Gerard Saucier

Behavioral genetic research has established the importance of genes as one of the influences on personality attributes and psychopathology. Because of overlap between these domains, genes for psychopathology can be found by looking for genes for personality. The function of specific bioamines in psychiatric disorders has been widely explored, and considerable evidence has accumulated favoring the view that alterations in serotonergic neurotransmission is involved in the pathophysiology of affective and anxiety disorders. A potentially important role has been attributed to the serotonin transporter (5-HTT), which terminates the actions of serotonin in the synaptic cleft by reuptake into the presynaptic terminal. Lesch et al. (1996) reported an association between a functional polymorphism in the regulatory sequence for the 5-HTT gene (5-HTTLPR) and the personality trait of neuroticism as well as symptoms of anxiety and depression. Using a set of three independent samples (total N=411), I attempted to replicate Lesch et al.'s findings but was unable to find confirmatory evidence. Post hoc analyses explored a number of possible reasons for discrepancies between my results and Lesch et al.'s, including the contribution of gender components and other demographic variables and assumptions regarding how genotypes are converted into variables.

### Sean Shiverick

#### Individual Differences in Inhibitory Control and Reasoning About False Representation

**Advisor:** Mark Sabbagh

Recent developmental, clinical, and neuroimaging evidence suggests that the cognitive underpinnings of reasoning about mental representations (e.g., beliefs) are dissociable from those required for thinking about non-mental representations. Two theories can potentially account for this dissociation. One theory postulates that the mechanisms subserving these two skills are qualitatively distinct. An alternative account of the dissociation posits that both skills are subserved by similar cognitive mechanisms, but to quantitatively different extents. In the present study, we investigated whether performance on tasks which tap 'executive function' abilities – which have been shown to be related to reasoning about mental states – are also related to success at reasoning about non-mental representations. Forty subjects are being tested on a battery of executive function tasks (e.g., Bear/Dragon task) and a battery of false belief and false photograph tasks. A strong correlation between executive function and false photograph performance would provide evidence in favor of a quantitative relationship between the two skills. By contrast, a failure to find a relationship between executive function and false photograph performance may suggest that the two skills may rely on qualitatively different cognitive mechanisms.

### Dahlia Spektor

#### The Driving Forces Behind Individuals' Interpretations of Ambiguous Comments

**Advisor:** Dr. Bertram Malle

This study explores the joint impact of global self-esteem and the activation of domain specific self-feelings on the interpretations of ambiguous self-relevant comments. In this study, participants of low and high self-esteem were asked to recall a situation that evoked a negative or positive self-feeling in one of four domains: academic competence, attractiveness, social skills, and athletic competence. Participants then indicated their self-views in the four domains and finally, interpreted a series of ambiguous comments.

**Kim Tucker**

The Effects of Similarity Judgments on Directional feature-matching processes

**Advisor:** Dr. Sara Hodges

Title: Calling all features: How thinking about similarity changes feature-matching effects

**Abstract**

In making preference judgments, the shared features of the two options under consideration typically “cancel out.” The goal of this study was to discover whether pre-choice contemplation of the similarity of two options would bring the shared features back into consideration, thereby nullifying this cancellation effect. Prior to reading a pair of job descriptions with either shared positive and unique negative features or shared negative and unique positive features, participants were instructed to think either about the general category of the two jobs (similarity condition) or about which job they would prefer (preference condition). Replicating past feature matching studies, shared features did appear to be canceled, with overall ratings higher when the options shared negative features than when they shared positive features. However, contrary to what was predicted, considering the similarity of the two options did not moderate this effect. Also, unexpectedly, job descriptions in the similarity condition were rated uniformly lower than those in the preference condition. The results suggest that considering similarity may cause the decision-maker to give extra weight to negative features, whether shared or unique.

**Sarah Vincent**

Perceived Acceptance as a Predictor of Placement Among Free Methodist Clergywomen

**Advisors:** Kristen Penza & Dr. Sara Hodges

Clergywomen everywhere have struggled to become accepted as pastors. Within the Free Methodist Denomination, efforts are being made to ease this struggle. This study examines these women and whether or not their own perceived acceptance by others (both superiors and subordinates) is correlated with their placement within the church. My hypothesis was that these two would be strongly positively correlated, although results show little significant correlation.

**Scott Woolley**

Comparison of Physical Practice Vs. Mental Practice in a Rotation Task

**Advisor:** Ben Clegg

It is well known that practicing a skill like throwing a football or navigating by a map will eventually result in proficiency of that skill. The question then becomes is there a way practicing a skill that is better than other forms of practice. For example, is simply thinking about a skill as efficient as physically practicing that skill, or does a combination of both provide the greatest gains in proficiency? By testing and comparing physical and mental practice groups in a rotation task, in this case, rotating a needle to match a presented card with a picture of the desired needle position, it is hoped that this question may be addressed.

**Yoshiko Yamada**

On the Source of Asymmetrical Cross-language Priming Effects in Bilinguals

**Advisor:** Dr. Michael Posner

Cross-language priming occurs when processing of a word in one language is facilitated by prior exposure to a related word in another language. Priming effects have been observed when the native language (L1) prime precedes the second language (L2) target, but not vice versa. This study is investigating whether this asymmetry can be attributed to the difference in the sensitivity to priming between L1 and L2. Japanese-English bilinguals are briefly exposed to the prime which simply is either “English” or “Japanese (written in kanji)” immediately followed by the English or Japanese target. Their task is to decide whether the target is a real word or not. Although no significant difference in the strength of priming effects has been found between the two languages, the lexical decision has been made significantly faster when the prime indicates the same language as the target. This suggests that the two languages in bilinguals can be activated separately from one another and can be activated by simple primes.