

Kate Pluth, Scripps College

Title: Alexithymia, Emotional Intelligence, and Their Relation to Word Usage in Expressive Writing

Abstract: This correlational and experimental study examines how people with different levels of alexithymia and emotional intelligence write about their emotional experiences. Because research on expressive writing (writing about important emotional experiences) has found such far-reaching therapeutic benefits, and attributes much of it to expressive writing's linguistic properties, exploring how a person's emotional understanding relates to language matters. Alexithymia, an extreme incapacity to identify and describe one's emotions, and emotional intelligence, an ability to identify and describe emotions as well as use them in decision making and in relating with others, are good indicators of emotional understanding. It was hypothesized that those high in emotional understanding (low in alexithymia and high in emotional intelligence) would write differently—with more overall clarity and complexity—than those low in emotional intelligence (high in alexithymia and low in emotional intelligence). Additionally, it was predicted that word usage for these individuals would change over time to reflect learning and emotional appraisal. Sixty-eight participants engaged in Pennebaker's expressive writing paradigm—they wrote about important emotional events in their lives for 15 minutes three days in a row. They also completed questionnaires that gauge alexithymia and emotional intelligence. Their word usage in the essays they wrote was measured on a number of categories, as given by the Linguistic Inquiry and Word Count software program. Results indicated that different levels of emotional intelligence and alexithymia correlated with certain parameters of word usage. In particular, these included word categories such as tentative words, insight words, positive emotion words, adverbs, and words per sentence. However, few relationships were observed between the two attributes and change in word usage over time.

Blake Bennett, Claremont McKenna College

Title: "Virtual Into Verisimilitude: Videogames' Ability to Induce Empathy"

Abstract: The current study seeks to link traditional forms of empathy induction with new research that suggests videogames can be used as an experiential method of induction. One hundred-eighty college students, ninety of each gender, were used in a 2x2x2 design, the independent variables being pro-social/neutral videogame, empathetic/neutral instructions, and gender. Dependent variables were both questionnaire responses to a fictional story and an opportunity to be realistically altruistic. Participants played either a pro-social or neutral videogame, then read a vignette depicting a difficult situation faced by the writer before which they received either empathetic or neutral reading instructions. They then rated their reactions on a 7-point Likert scale before being asked to donate time to a local charity. The pro-social videogame induced higher empathy than the empathetic instructions, and both induced higher empathy than their neutral versions. Males responded more strongly to the pro-social videogame than women.

Kevin Macpherson, Claremont McKenna College

Title: "Using Video Modeling to Teach Children with Autism to give Verbal Comments and Gesture Appropriately During Competitive Play"

Abstract: Individuals with autism display profound deficits in social behavior (American Psychiatric Association, 2000). When children with autism do participate in these activities, many do not demonstrate age-appropriate social behaviors, like verbal comments and

nonverbal responses or gestures. The present study intends to use video-modeling to increase the number of appropriate verbal comments (e.g., saying “good job” or “nice kick”) and gestures (e.g., thumbs up, clapping hands) of children with autism during a competitive play activity, kickball. Video-modeling has been shown to be effective in teaching a variety of social behaviors but has not yet been used to increase the targeted behaviors (Charlop-Christy, Le, & Freeman, 2000). In addition, the Apple iPad will be used to provide in situ video modeling, further pioneering the use of portable video devices as effective therapeutic tools to teach children with autism. The study will use a single-subject, multiple baseline design across children, which is common when conducting research with children with autism (Cooper, Heron, & Heward, 2007). Five children will be given the video modeling treatment with a staggered number of baseline sessions prior to verify the effectiveness of the therapy. Generalization probes, baseball games, will be conducted during baseline and post-intervention to assess the effectiveness of the treatment across activities. It is hypothesized that the video-modeling intervention will increase the number of appropriate comments and gestures demonstrated by the participating children with autism and that these gains will generalize across activity. The study is currently ongoing with very encouraging results and will be completed by the date of the conference.

Francesca Kazerooni, Claremont McKenna College

Title: “Did you get it?” - The Effects of Understanding (or Not Understanding) a Satirical Piece of Humor”

Abstract: Most of the literature on humor, especially within social psychology, has focused primarily on disparaging humor or in other words humor that makes fun of other people in a negative light (e.g. sexist, racist, or homophobic humor). Researchers have suggested that disparaging humor allows prejudiced individuals to release their suppressed prejudice in a socially acceptable way. This study aims to see if this phenomenon, in fact, applies to satirical humor about certain outgroups. In particular, whether or not individuals understand a satirical piece of humor to be, in fact, satirical and if said piece of satire impacts the individual’s perceptions of the piece’s subject. The effects of knowing or not knowing the satirical nature of a piece of humor will ultimately be examined and compared to the effects of disparaging humor through the manipulation of comics within this study. One hundred and twenty heterosexual undergraduate students will randomly be assigned a satirical or an offensive comic about gay men and half of those who read the satirical piece will be told of the satirical intentions of the author. When the author’s intentions are unknown, high SDO (social dominance orientation) individuals will find the satirical comic more accurate and be less willing to donate to a gay activist organization than low SDO individuals. In the disparaging humor condition, high SDO individuals should find the comic more humorous and less offensive than low SDO individuals. These findings suggest that satirical humor that is not understood as satirical may encourage high SDO individuals to express their prejudice as they would with disparaging humor. Thus, satire seems to reinforce instead of discourage prejudice towards an outgroup for those who wish to maintain group inequalities within society.

Greg Zahner, Claremont McKenna College

Title: “Mood and Perceived Fairness: The Context Dependency of Empathy”

Abstract: The purpose of the present experiment is to examine the context dependency of empathy. In the last decade, many studies in cognitive neuroscience have complemented earlier

studies in social psychology to advance our understanding of human empathy. Rather than a unitary model of empathy, contemporary models build on simulation theory and propose a model with dissociable components. The components include affective response, emotion regulation, and perspective taking. With a developing model of empathy in hand, researchers must now test the components simulation model of empathy in a variety of different contexts. The present study will examine the context dependency of empathy with regards to mood and the perceived fairness of a partner in a cognitive game. More specifically, can a participant's mood lead to an egocentric bias (i.e., mood congruency effect) in their perspective taking? Furthermore, can the context dependency effects observed by Singer et al. (2006) for fairness be observed at the behavioral level of perspective taking? A 2 (mood induction: neutral vs. negative) \times 2 (fairness of the partner: fair vs. unfair) between subjects factorial design was used to examine these questions. Participant mood was induced using two previously published two-minute videos designed to prime either a negative affect or induce a neutral affect. Playing a preprogramed fair or unfair "partner" in a modified Prisoner's Dilemma game induced the perception of partner fairness. Finally, two published and one self-developed measure of perspective taking were employed to test participant empathy. Additional behavior measures (e.g. response times during the game) and participant variables (e.g. IRI) were recorded. The study is part of my honors thesis in cognitive neuroscience and is currently in the final stages of data collection. The study will be completed by the time of the conference.

Natasha Haradhvala, Pomona College

Title: "Disordered Eating: Behavioral Functions and Clinical Correlates"

Abstract: The causes and functions of eating disorders (EDs) are under a great deal of debate. Some researchers argue that they are a form of addictive behavior and should be treated as such (Heubner, 1993); some say that they have more to do with the presence of obsessions and compulsions (Rothenberg, 1990); some point to their link to attachment insecurity (Illing, Tasca, Balfour, & Bissada, 2010). There is demonstrable evidence that all of these factors play some role in the ED pathology of certain individuals, and yet there has not yet been an attempt to separate EDs according to the presence or absence of such factors. As a result, the available treatments for EDs are applied haphazardly and demonstrate low efficacy rates. This study applies a functional model to a range of ED behaviors and will identify clinical constructs that are related to specific functions. I hypothesized that a four-function theoretical model (Nock & Prinstein, 2005; Wedig & Nock, 2010) emphasizing the automatic and social reinforcement functions of maladaptive behaviors can be applied to eating disordered behaviors, and that groups of ED individuals who endorse separate functions for their disorders can be distinguished from one another by general psychopathology factors. My sample included 155 participants from US treatment programs and online eating disorder support communities who had engaged in binge eating, diuretic abuse, diet pill abuse, laxative abuse, restricting, vomiting, or over-exercising behaviors within three months prior to taking the online survey. I measured ED pathology and general psychopathology, as well as the major functions of the ED behaviors. I will examine the data using confirmatory factor analysis and regression analysis. Ideally, taking into account the role of both automatic and social reinforcement functions in EDs will lead to more individualized treatment options, resulting in more successful and efficient recovery plans for each patient in this treatment population.

Dean Pospisil, Pitzer College

Title: "Visual Linguistic Cues in the Pitch Domain"

Abstract: Human sensory perception involves the collaboration of multiple senses. Robust influences have been found between visual speech and auditory perception of speech. Thus far there has been no research into whether visual speech effects extend into the pitch domain of speech perception. I hypothesize that visual mouth movements predicting pitch changes in speech will influence auditory pitch perception. My behavioral results show that mouth movements do in fact influence the pitch perception of pure tones. This relationship between mouth shape and pitch perception may serve as an explanation for universal linkages between pitch and angularity e.g. why spiky objects are perceived as high pitched objects.

Amina Y. Simmons, Pomona College

Title: “More Like Them & Less Like Us: Stressors and Cultural Maintenance Coping Strategies of Black Students at Predominantly White Institutions”

Abstracts: Most students face adjustment challenges when entering the college environment. Academics and peer relations are major parts of adjusting to a new environment, but defining and/or maintaining one’s sense of personal identity is a particularly difficult hurdle for Black students. The present study was a two-part, mixed methods study that examined how Black students maintain their racial or cultural identity and cope within predominately White environments. For part one, a sample of thirty self-identified Black students were recruited from colleges across the United States, although most attended colleges in Southern California. Qualitative, semi-structured interviews were conducted to explore each student’s experience at their institution. Some of the common themes that arose during the interviews were: feelings of judgment from White peers and professors, a sense of communal struggle among Black students, and longing to be a part of a community in an environment that is unwelcoming to Black students. For part two, a sample of 113 self-identified Black students were recruited from colleges across the United States, although most attended colleges in Southern California. Participants took part in a survey (developed based on the qualitative data collected) about their experiences as Black students at Predominantly White Institutions. As predicted, students who experience more stress engaged in coping mechanism more readily. The racial identity stressors were the most impactful for participants. Adjusting to campus climate along with fear of judgment because of being Black were among the most frequently occurring stressors. Forms of social support seemed to be the most effective coping mechanisms for students and building a community (through conversation, Black student organizations, and mentorship) amongst Black students were among the most frequently used coping mechanisms. This research suggests practical ways for PWIs to support their Black student populations to increase retention and increase Black student interest in attending.

Colleen Moore, Pomona College

Title: “Potential rehabilitative effects of hormone therapy in traumatic brain injuries”

Abstract: Traumatic brain injuries (TBIs) are a significant public health problem that affect an estimated 1.7 million United States residents yearly. TBI patients experience a variety of symptoms related to physical functioning, sensory processing, cognition, communication, behavior, and mental health. Due to the widespread nature of this injury and the potentially debilitating outcomes, there is a great need for the development of effective rehabilitative strategies specifically designed for this population.

This paper investigates the potential for hormone therapy by investigating the relationship between hypopituitarism and symptoms experienced by TBI patients. In this retrospective chart study, data was collected from 71 males with TBI who received treatment at Casa Colina Hospital within the last four years. A hormone assay that calculated levels of testosterone, cortisol, prolactin, insulin growth factor 1 (IGF-1), growth hormone (GH), free thyroxin (T4), thyroid-stimulating hormone (TSH), follicle-stimulating hormone (FSH), and luteinizing hormone (LH) was collected to assess hypopituitarism. The functional independence measure (FIM) scale was used to assess both physical and cognitive rehabilitation. Statistics will be run to determine if there is a significant difference in rehabilitation (based on the FIM outcome scale) between patients who do and do not experience abnormal levels of hormones secreted by the pituitary. If a relationship is found between rehabilitation and one or more of these hormones, growing evidence might encourage doctors to consider hormone therapy as a viable option for patients experiencing hypopituitarism in acute inpatient settings.

Ian Schoen, Pitzer College

Title: "Effects of Method and Context of Note-taking on Memory: Handwriting versus Typing in Lecture and Textbook-Reading Contexts"

Abstract: Both electronic note-taking (typing) and traditional note-taking (handwriting) are being utilized by college students to retain information. The effects of method of note-taking and note-taking context were examined to determine if handwriting or typing notes and if a lecture context or a textbook-reading context influenced retention. Pitzer College and Scripps College students were assigned to either handwrite or type notes on a piece of academic material presented in either a lecture or textbook context and were given a test to assess their retention. The results demonstrated that there was a marginally significant main effect for typing notes such that typing notes demonstrated higher retention scores than handwriting notes. In total, this finding suggests that typing as a method of note-taking may be an influential factor in memory retention.

Christina Boardman, Scripps College

Title: "Navigating the diverse dimensions of stereotypes, with domain specific deficits: Processes of trait judgments about individuals with disabilities"

Abstract: Stereotype groups are interrelated. For example, in Australia, New Zealand, and the United States racial minorities are referred to special education at a much higher rate than are majority racial groups (Tse, Lloyd, Petchkovsky, and Manaia, 2005; Harry, Arnaiz, Klingner, Sturges, 2008). The Stereotype Content Model describes stereotype relationships in terms of an interaction between competence and warmth. Warmth is the more consistent dimension. The nature of competence remains elusive (Fiske, Cuddy, & Glick, 2007; Fiske, Cuddy, Glick, and Xu, 2002). Knowledge of relationships between stereotype groups, which themselves may be effects of bias, could factor into observed competence effects. Disabilities are characterized by objective competence deficits. Disabilities stereotype research allow for more refined models of competence. While competence perception may vary between disabilities, with different domains of competence deficits, unifying disability schemas may also exist. In either case, different competence processes could be inferred.

We compared ratings on the Fiske scale (FC, FW), a multimodal competence scale (MMC), a quality of life scale (QL-T) and an overt threat scale (OPT) for five disability groups (DS) and a set of established stereotype (ES) groups. Our MMC analysis indicates the competence dimension and stereotype group interaction was more significant for DS and ES

together than for DS alone. This is surprising, because the multimodal competence scale was designed to target specific disability groups. These results may indicate there may be some unifying disability schema. The differences between disability groups on the QL-T indicate complex relationships between disabilities stereotypes may also exist.

Allison Midden, Scripps College

Title: Memory vantage point and visual imagery: Effects on recall in younger and older adults

Abstract: A wealth of research indicates that episodic memory function declines with age. Interventions to improve memory would be of high significance. In order to investigate a potential memory retrieval technique, the current study explored the influence of priming vantage point at retrieval on the recall of younger and older adults, in addition to the effects of visual mental imagery ability on recall. It was hypothesized that recollections would be more likely to include certain features when retrieved through the field vantage point (FVP) than through the observer vantage point (OVP) and vice versa. Additionally, it was expected that older adults would recall more detailed memories from the OVP than from the FVP. Finally, it was hypothesized that visual mental imagery ability would influence memory vividness and that it would be more influential in older adults than in younger adults. The experiment was conducted across two sessions. In Session 1, memories were created in the laboratory with younger ($n = 20$; 18-21 years old) and older ($n = 18$; 63-88 years old) adults through the completion of two physical activities. In Session 2, participants recalled the activities from either the FVP or the OVP. Data on visual imagery ability was also collected. Participants' recollections were coded for various memory characteristics. Using memory recall score as a covariate, 13 ANCOVAs were carried out with age, vantage point, and imagery ability as independent variables and each memory characteristic as a dependent variable. A significant interaction effect ($p = .003$) between age and vantage point was found on the characteristic of psychological state, such that older adults referred to their psychological state in FVP memories more than in OVP memories ($p = .002$) and younger adults demonstrated no significant difference between vantage points. Through the conduction of regression analyses, it was found that imagery ability significantly predicted several aspects of participants' subjective recall experience. Overall, the results indicate that retrieval vantage point does not change one's recollections on most measures for either younger or older adults and that visual mental imagery ability predicts several aspects of one's recall experience.

Leah Nunke, Scripps College

Title: "Mindfulness and concern for the poor: The roles of empathic concern and emotion regulation"

Abstract: As a state or trait characterized by a non-judgmental awareness of one's moment-to-moment experience, mindfulness has been shown to increase empathy, compassion, and perspective-taking (Block-Lerner et al., 2007). Elaborating on previous research, the current study investigated the role of mindfulness in predicting prosocial behavior towards a general outgroup including the possible mediating roles of empathy and emotion regulation. Survey data was collected from 53 adults, with and without contemplative practice experience, on measures of mindfulness, empathy, emotion regulation, and level of concern for the poor. As predicted, a significant positive relationship was found between mindfulness and concern for an outgroup, and empathic concern was found to mediate this relationship. Other findings support a model of multiple pathways that lead to prosocial behavior.

Jennifer Somers, Pomona College

Title: Psychological distancing as moderator of treatment outcomes among substance-using mothers: Results from a randomized clinical pilot

Abstract: A randomized control pilot has shown that the Mothers and Toddlers program (MTP), an attachment-based parenting intervention, is more effective than a standard parenting education program (PE) in promoting improvements in reflective functioning and representational quality, sensitivity and responsiveness of caregiving, and maternal psychiatric distress at post-treatment and at a 6-week follow-up (Suchman, DeCoste, Castiglioni, McMahon, Rounsaville, & Mayes, 2010; Suchman, DeCoste, McMahon, Rounsaville & Mayes, 2011). A next step in maximizing positive treatment outcomes is identifying patient characteristics that predict differential response to treatment. One potential moderator of treatment outcomes may be the extent to which mothers are able to openly discuss their children's emotional experiences, since mothers who are psychologically distanced from their children's emotional experiences may be resistant to a treatment that emphasizes experiential connectedness in the parent-child relationship. In the current study, we assessed whether mothers' psychological distancing from their children's emotional experiences, as manifested in narrative, moderates change in depressive symptoms for MTP and PE. 47 mothers were randomized to treatment (23 MTP, 24 PE). Mothers completed the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996) at baseline, post-treatment, and 6-week follow-up. Mothers also completed a 1.5 hr long semi-structured interview about parenting experiences (PDI; Slade et al., 2002) at baseline. Transcripts of the interview questions focused on the child were subjected to word-count linguistic analyses. The results of a standard linear regression revealed that after controlling for group differences (marital status), psychological distancing moderated the relationship between treatment and change in depressive symptoms at post-treatment and follow-up (all p 's < .05). Post-hoc probing of significant interaction effects supported the study hypotheses. Linguistic measures of psychological distancing may be useful in identifying mothers who would benefit most from attachment-based interventions.

Adult Development Project Lab Group: Emery Hilles, Shalina Omar, Brandi Seaman, Sarah Stringer, & Gillian Varney, Scripps College