**Positive Psychology Summer Institute 2005 Research Summaries**

**Jonathan M. Adler**

My research is positioned at the nexus of clinical and personality psychology. Mental illness and psychotherapeutic treatments have profound impacts on individual’s evolving sense of self and their cognitions, behaviors, and emotions over time. Yet the nature of these influences has been largely overlooked in the empirical research literature. In an effort to synthesize my training as a clinical scientist with my interest in narrative identity construction (i.e., McAdams, 1996, 2001) I have sought out research topics which actively engage theoretical concepts and methodological tools from both fields. Broadly speaking, my goal has been to approach empirical issues of clinical relevance from the perspective of a narrative personality researcher with the hope of expanding the traditional ways in which these concerns are conceptualized.

In this vein, I have completed a line of work looking at unique narrative styles that are related to depression in an effort to provide therapists with a practical tool for helping their clients (Adler, Kissel, McAdams, in press). Using several content analytic tools, including the Content Analysis of Verbatim Explanations (CAVE) technique (Peterson, Schulman, Castellon, & Seligman,1992), I was able to provide further support for the power of pessimistic attributional style, as well as empirically support a recently established easily-identified narrative style called contamination sequences (McAdams et al., 2001), which cognitively-oriented therapists could label in their depressed clients’ speech patterns and modify.

My current project focuses on the impact of individuals’ experiences in psychotherapy. From the narrative perspective, psychotherapy may be conceived of as a unique experience – one in which the individual seeks assistance in the telling (or re-telling) of his or her story such that events or occurrences that do not fit with the on-going personal narrative, or which call into question the established story, may be incorporated (see for example, White & Epston, 1990). In the positive psychological tradition, I am focusing on those individuals who King (King & Napa, 198l; King, 2001) has described as living “The Good Life.” The Good Life represents the unique combination of (1) having high subjective well-being (SWB) and (2) using complex ways of making meaning of one’s experience, as captured by high levels of ego development (ED; Loevinger, 1966). Previous studies of the Good Life have used narrative methodologies to focus on the stories that these people with high SWB and high ED tell of overcoming difficult life events. From the narrative perspective, the life story has been conceived of as a unique level of personality (McAdams, 1996) and so these individuals have served as prototypes for optimal life story construction. Yet the literature in this area has ignored the experience of psychotherapy, an intentional process of finding SWB and meaning following difficult events. Therefore, I have focused on the stories told by people living The Good Life about their experiences in psychotherapy, in order to provide a client-centered perspective on optimal conceptions of mental illness and healing. A community sample of 76 adults completed self-report measures of SWB and ED and wrote the story of their psychotherapy following a semi-structured format based on McAdams’ life story interview. The sample was divided into four groups based on their questionnaires and grounded theory methodology was used by five coders to identify unique narrative patterns which distinguished the Good Lifers. Several salient patterns emerged from the data which indicate the most beneficial ways of understanding and making meaning from one’s experiences with mental illness and healing.

I plan to continue with research in this same area, paying increasing attention to the power of narrative processing to mediate the effect of psychotherapeutic interventions on healing.

E-mail address: jadler@northwestern.edu

References

Adler, J.M., Kissel, E., & McAdams, D.P. (in press). Emerging from the CAVE:

Attributional Style and the Narrative Study of Identity in Midlife Adults. Cognitive Therapy and Research.

King, L. A. (2001). The hard road to the Good Life: The Happy, Mature Person. Journal of Humanistic Psychology, 41(1), 51-72.

King, L. A. & Napa, C. K. (1998). What Makes A Life Good? Journal of Personality and Social Psychology, 75(1), 156-165.

Loevinger, J. (1966). The meaning and measurement of ego development. American Psychologist, 21, 195-206.

McAdams, D. P. (1996). Personality, modernity, and the storied self: a contemporary framework for studying persons. Psychological Inquiry, 7(4), 295-321.

McAdams, D.P. (2001). The psychology of life stories. Review of General Psychology, 5(2), 100-122.

McAdams, D.P., Reynolds, J., Lewis, M., Patten, A., & Bowman, P.J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative, and their relation to psychosocial adaptation in midlife adults and in students. Personality and Social Psychology Bulletin, 27, 472-483.

Peterson, C., Schulman, P., Castellon, C., & Seligman, M.E.P. (1992). CAVE: Content analysis of verbatim explanations. In C.P. Smith (Ed.), Motivation and personality: Handbook of thematic content analysis (pp. 383-392). New York: Cambridge University Press.

White, M. & Epston, D. (1990). Narrative means to therapeutic ends. New York: Norton.

**Monica Bartlett**

My research focuses on the emotion system and how it impacts social decision-making and social behavior. My work builds from the theoretical position that discrete emotions provide individuals with information about their environment and motivate them to react in ways that help them solve problems. For a social species, these problems include negotiation of interpersonal relationships as well as navigation through one’s physical landscape. For this reason I approach emotions as integral components of successful social behavior and decision-making. Some of my current research investigates how social emotions, such as gratitude and the experience of being humbled, guide interpersonal behavior and decision-making.

Gratitude: Historically, psychology has implicated the reciprocity norm as a salient reason for prosocial acts toward others. More recent work, however, has suggested that emotional experience may play a guiding role in upholding this norm. Specifically, gratitude has been theorized to play an important role in nurturing the on-going construction of a relationship by encouraging reciprocity between a benefactor and recipient. Having created a reliable gratitude induction procedure, I have found evidence that gratitude has a unique, positive effect on prosocial behavior (i.e., costly helping behavior) compared to that of simple awareness of reciprocity needs, as well as that of another positive emotion and a neutral state (Bartlett & DeSteno, in press). Future research will examine how long the prosocial behavior effect lasts as well as what consequences gratitude has for those experiencing it.

Humbled: Growing out of my gratitude research, I have begun a new line of inquiry into the nature and consequences of feeling humbled (i.e., the state as opposed to the trait of humility). I am starting from the premise that, rather than denigrating one’s self, humility involves positively acknowledging the important role that others play in one’s life. Consequently, I expect an experience of humility to foster closeness to others and to encourage cooperation. An extensive literature search (in religion, philosophy, as well as psychology) is under way in order to create a working construction of the humbled experience. From here I plan to investigate how feelings of humility affect one’s interpersonal interactions.

Selected Publications:

Bartlett, M.Y. & DeSteno, D. (in press). Gratitude and prosocial behavior: Helping when it costs you. Psychological Science.

DeSteno, D., Valdesolo, P. & Bartlett, M.Y. (2005). Jealousy and the threatened self: Getting to the heart of the Green-eye monster. Revision submitted to Journal of Personality and Social Psychology.

Monica Y. Bartlett
Doctoral Student
Department of Psychology, Northeastern University
Phone: 617-373-3079 Email: aarmon@earthlink.net

**Stephanie Brown**

My program of research is designed to explore interpersonal relations and their consequences for mental health and illness. Results of this work so far suggest that giving resources to others can increase longevity, lessen depressive symptoms, and speed recovery from stress. These results challenge traditional self-interest models that guide social, health, and evolutionary psychological approaches to close relationships, cooperation, and conflict. My work has led naturally to the study of mechanisms that might account for the link between altruism (i.e., giving resources to others) and health. Below, I describe the results of my previous studies, the guiding framework I have used to derive predictions about altruism, and I conclude with a summary of my ongoing and future research.

Previous studies: Giving and Longevity

In a prospective study of mortality among older adults, I found that providing emotional support to a spouse, and instrumental support to one's social network, were each independently associated with a 30-60% reduction in mortality risk over the 5-year study period (S. L. Brown, Nesse, Vinokur, & Smith, 2003). These giving-related benefits could not be accounted for by other measures of participants' physical health, mental health, and personality, or by other interpersonal variables. Interestingly, support participants received also failed to explain their reductions in mortality risk. This finding contrasts sharply with traditional "social support" studies that have emphasized the therapeutic value of support received from one's social network, but that have failed to control for support given to members of that network. Importantly, we have replicated the Brown, et al. findings in a different, nationally representative sample of retired adults (Brown, S.L. et al., in preparation). Over a 7-year period, participants in this sample who were identified as "caregivers" lived longer than participants who were not. At first glance this finding appears inconsistent with the vast literature on caregiver burnout and burden, which suggests that the stress of caregiving is associated with poorer physical and mental health. However, the caregiver burnout literature consists mainly of studies that failed to differentiate between stress associated with providing care, and stress due to simply living with a person who is suffering. By controlling for this latter variable, we have exposed previously hidden positive effects associated with caregiving.

Theoretical background

As an alternative to existing self-interest models of close relationships, I developed an "altruistic" theory of social bonds, called "Selective Investment Theory" (S. L. Brown & R. M. Brown, in press). Selective Investment Theory (SIT) proposes that human social bonds (between dyads or among larger groups) evolved as emotion regulating mechanisms, designed to promote high-cost altruism (e.g., nurturing offspring, provisioning a mate, defending coalition members). A central proposition of the theory is that the social bond representational complex, when activated, functions to minimize self vs. other motivational conflicts associated with altruistic decision-making. In elaborating SIT, we emphasize recent advances in behavioral neuroendocrinology to support the theory's central tenets. We also discuss SIT's implications for relationship science, including comparison/contrast with the Bowlby-Ainsworth theoretic framework, and consideration of SIT's import for social/health psychological approaches to close relationships.

On-going Studies and Directions for Future Research

Recently, I received a Research Scientist Career Development Award (K-01) from NIMH intended to clarify the means by which social support is beneficial versus harmful to depression among patients undergoing dialysis therapy for renal failure. This project is designed to culminate in the development of an intervention that emphasizes patient giving, and reduces patients' sense of being a burden to others. Thus far, my program of work has identified 2 questions that seem fundamentally important to the success of interventions that induce altruism in medical patients and others in an effort to improve their psychological and physical well-being. Specifically:

1. What are the psychological mediators of the health benefits of giving and the health costs of feeling like a burden to others? Preliminary results of this work demonstrates that helping others is associated with significantly faster recovery from cardiovascular stress, regardless of experienced positive emotion, and regardless of the success or failure consequences of the helping attempt.

2. What are the hormonal mediators of the health benefits of social contact? I have begun to investigate the possible mediating role of progesterone as a proxy for the hormone oxytocin in explaining health benefits of giving.

References

Brown, S. L. & Brown, R. M. (in press). Selective Investment Theory: Recasting the Functional Significance of Close Relationships. Psychological Inquiry (Target Article)

Brown, S. L., Nesse, R., Vinokur, A. D., & Smith, D. M. (2003). Providing Support may be More Beneficial than Receiving It: Results from a Prospective Study of Mortality. Psychological Science, 14, 320-327.

**Robert Fasman**

I am entering my fifth year as a doctoral student in clinical psychology, with an emphasis on health psychology. I enrolled in graduate study to help unravel the deepest and most pertinent questions in psychology and philosophy: What are emotions, what is love, and what is altruism? More important than solving these mysteries are the implications of such work. Does living a moral, compassionate life make one happier, perhaps even healthier? If so, what are the mechanisms behind these systems? What are the evolutionary roots behind the moral emotions, and how do we foster them in a society increasingly geared towards materialism and self interest?

I believe the answer to the latter question lies in demonstrating that living a noble life leads to mental and physical well-being through physiological mechanisms that reward us for caring about "the important things in life."

I am currently working on my dissertation, which will relate oxytocin levels in rheumatoid arthritis patients to various measures of social affiliation and mental and physical health. Recent research has established connections between various measures of social affiliation and health (at least in part through down-regulation of the stress response), social affiliation and oxytocin, and between oxytocin and down regulation of the stress response. Although several studies have implicated oxytocin in the health-promoting benefits of social affiliation (e.g., DeVries, Glasper, & Detillion, 2003), these relations have not been examined directly in one study.

Serum OT levels will be measured from blood samples previously obtained from rheumatoid arthritis patients during a laboratory session. Physiological (cortisol, heart rate, blood pressure) and self-report (mood) responses to a stress induction paradigm as well as to a relaxation condition were also obtained during this session. Measures of affect (positive affect, negative affect, serenity) and social support/satisfaction (frequency and enjoyment of positive events) were obtained from daily diaries completed for thirty days prior to the laboratory session for all participants. Depression and extraversion were measured with a self-report questionnaire obtained prior to the diary phase of the study. This study would be the first to examine relations between oxytocin and such a variety of state and trait-level variables that have been shown or hypothesized to be related to oxytocin.

Although direct measures of prosocial behavior and moral living are not available in this study, support for the study hypotheses would lend support to the possibility that oxytocin may also be related to various constructs and behaviors related to social affiliation (e.g., cooperation, moral values, caring for the less fortunate and for the environment). Furthermore, eventual findings relating moral living to oxytocin as well as to health benefits may provide the impetus for social change on a grand scale.

References:

DeVries, A.C., Glasper, E.R., & Detillion, C.E. (2003). Social modulation of stress responses. Physiology and Behavior, 79, 399-407.

Zautra, A.J., Fasman, R., Reich, J.W., Harakas, P., Johnson, L.M., Olmsted, M.E., & Davis, M.C. (2005). Fibromyalgia: Evidence for deficits in positive affect regulation. Psychosomatic Medicine, 67, 147-155.

Zautra, A.J., Affleck, G., Davis, M.C., Tennen, H., & Fasman, R. (In Press).
Assessing the ebb and flow of everyday life with an accent on the positive. In A. Hogg
(Ed.), Handbook of Methods in Positive Psychology.

**Cynthia Frantz, Oberlin College**

I have two main areas of research, both related to the Positive Psychology movement. At the Summer Institute, I presented my research on connectedness to nature (in collaboration with Steve Mayer). For many years, environmentalists and nature writers have argued that humans benefit both physically and emotionally from feeling part of the natural world. Steve Mayer and I have developed the Connectedness to Nature Scale (CNS, Mayer & Frantz, 2004) to operationalize this concept. Our research shows that feeling connected to nature does indeed correlate with positive affect, feeling connected to others, and subjective well-being. (It also correlates with pro-environmental attitudes and behaviors, a positive thing for the environment.) Our goal now is to determine whether there is a causal link between connectedness and well-being. We are exploring the possibility that nature can fulfill a core need to belong in some of the same ways that feeling part of human society can.

I also study perspective taking. Most research on perspective taking (with a few notable exceptions) has asked people to take the perspective of targets that I describe as “neutral strangers”: people who you will never meet and for whom you have no strong motivation (negative or positive) to understand. Needless to say, this does not describe most of the thorny, real-world social situations that truly require understanding another’s point of view. My goal is to extend research on perspective taking into these situations.

In particular, I am interested in understanding the cognitive processes that underlie perspective taking. Research using a neutral stranger (Davis et al., 1996; Galinsky & Moskowitz, 2000) suggests that we do take someone’s perspective by accessing our self concept, and projecting our own traits upon the target. However, is this likely to be true for a “negative” other, someone we are motivated to not understand? For example, how do we take the perspective of a convicted murderer, or of an ideological opponent? Similarly, do we use our own traits to understand someone we know quite well? Preliminary data on perspective taking for a negative other suggests that we do not use our self concept to understand these people. In the future, I hope to identify what processed do come into play.

References

Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective taking on the cognitive representation of persons: A merging of self and other. Journal of Personality and Social Psychology, 70, 713-726.

Frantz, C. M. & Janoff-Bulman, R. (2000). Considering both sides: The limits of perspective-taking. Basic and Applied Social Psychology, 22, 32-41.

Galinksy, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. Journal of Personality and Social Psychology, 74, 708-724.

Mayer, F. S., & Frantz, C. M. (2004). The Connectedness to Nature Scale: A Measure of Individuals’ Feeling in Community with Nature. Journal of Environmental Psychology, 24, 504-515.

**Jeff Larsen**

I do research on three general topics. My research in positive psychology investigates the precursors of happiness. The Rabbi Hyman Schachtel (1953) speculated that, "Happiness is not having what you want, but wanting what you have." To test Schachtel's hypothesis, Amie McKibban and I have asked undergraduates whether they had each of 52 material items and the extent to which they wanted them. They were asked, for example, "Do you have a television?" Those who said "yes" were then asked to rate how much they wanted the television they had. In contrast, those who said "no" were asked to rate how much they wanted a television. To quantify how much people want what they have, we identified what they had and the extent to which they wanted those things. Similarly, to measure how much people have what they want, we identified how much they wanted each item and whether they it. Having what you want accounted for unique variance in measures of happiness even after controlling for the combined effects of number of haves and wanting what you have. Wanting what you have also accounted for unique variance in happiness. Moreover, wanting what you have partially mediated the effect of gratitude on happiness. Thus, happiness is not just a matter of having things or even having what you want. As Schachtel suggested, it is also important to want and be grateful for what you have.

My main line of research is on mixed emotions. Many models of emotion hold that happiness and sadness are diametrically opposite to one another and are therefore mutually exclusive in experience. Peter McGraw, John Cacioppo, and I, however, have demonstrated that in certain emotionally complex situations (e.g., one's own graduation day) people can experience mixed emotions of happiness and sadness. Such results indicate that positive and negative affect are best represented as separable processes rather than opposite ends of a bipolar continuum. In laboratory research, McGraw, Cacioppo, Barbara Mellers and I have also shown that disappointing wins (i.e., winning some amount of money when the alternative was an even larger win) elicit mixed emotions: the win itself is pleasant, but the comparison with the larger win is unpleasant.

The research on disappointing wins dovetails with my interest context effects on emotion. Indeed, our findings demonstrate that affect is relative: winning $5 is generally pleasant, but it can also be unpleasant depending on the alternative. In ongoing research, one of my Ian Norris and I are examining the mechanisms underlying a well-known context effect termed affective contrast. Affective contrast refers to the tendency for affective stimuli to be judged more pleasant when embedded in a context of less pleasant, as opposed to more pleasant, stimuli. It isn't clear why affective contrast occurs. Respondents tend to distribute their judgments across the response scale equally, so one possibility is that affective contrast is the result of a response bias. A more intriguing possibility, however, is that context influences the underlying affective reaction. To distinguish between these accounts, we record facial electromyographic (EMG) activity over the brow. Diminished EMG activity over the brow represents a marker for positive affective reactions. Results indicate that moderately pleasant pictures are not only rated more pleasant when they're embedded in a mildly pleasant context, they actually elicit greater diminutions over the brow as well. These results indicate that context affects underlying affective reactions.

**Seana Moran, Harvard Graduate School of Education: Work Commitment**
My research interest focuses on differences in commitment patterns and their development between creative “domain transforming” work and conventional “within specifications” work. Through deeper understanding of how commitment functions and develops, individuals and organizations can make better use of the psychic energy and other resources put toward work and life purposes.

Most current theories address commitment in conventional work (Cohen, 2003). Using Csikszentmihalyi’s (1996) systems model, I developed a theory of commitment that can account for both conventional and creative work. In conventional work (e.g., doctor), roles are standardized into job descriptions that involve efficient, quality performance, well buoyed by predetermined standards and institutional supports. In creative work (e.g., experimental fiction writer), roles generally focus on innovation and are less institutionally supported, and work products (if accepted by others in the field) transform or redefine the conventions that later generations learn (e.g., Virginia Woolf made novels organized psychologically, rather than by genre dictates, acceptable in literature).

Commitment simultaneously involves the investment of personal resources (e.g., effort, time, cognition, emotion, material possessions, social status) into some object (e.g., task, purpose, organization, profession) and the resistance to divert investment toward alternatives over long periods of time. Commitment involves the relationship between the individual and two dimensions of a work role—the field with its social attributes and the domain with its symbolic attributes. The person commits to a role socially by assuming a defined institutional position/job with associated power and prestige (e.g., doctor). But the person also commits to a role symbolically by learning and identifying with the role’s values and knowledge base (e.g., medical training and the Hippocratic Oath). I propose that the individual-field relationship is dominant in conventional work, whereas the individual-domain dimension is dominant in creative work. That is, one or the other dimension “bends” a person’s career path depending on the commitments s/he holds.

My dissertation, which involves a qualitative analysis of life-history interviews, explores how people naturalistically talk about work commitments—and how those commitments function within their careers—in one domain: writing. I focus on writing because it is open to all (and encouraged) from a young age, but few choose it as a career, especially domain-transforming writing. Preliminary analyses suggest that commitment in conventional, genre-conforming writing plays a stabilizing “thermostat” or identity-controlling “wedding ring” function, whereas commitment in experimental or genre-bending work involves a more temporally complex interplay of stabilizing “thermostat,” momentum-driving “sail,” and protective “umbrella” functions. These different functions may become particularly important at different career stages—training, apprenticeship, innovation attempts, field acceptance, etc.

I hope to further refine these metaphors of commitment function and use computer modeling to better understand their dynamics. I also plan to examine commitment in other domains (e.g., food preparation/chef and business/entrepreneur).

Cohen, A. (2003). Multiple commitments in the workplace: An integrative approach. Mahwah, NJ: Erlbaum.

Csikszentmihalyi, M. (1996). Creativity. New York: HarperCollins.

Kegan, R., & Lahey, L. (2001). How the way we talk can change the way we work. San Francisco: Jossey-Bass/Wiley.

Klinger, E. (1975). Consequences of commitment to and disengagement from incentives. Psychological Review, 82 (1), 1-25.

Nakamura, J. (2001). The nature of vital engagement in adulthood. In M. Michaelson & J. Nakamura (Ed.), New directions for child and adolescent development, 93 (pp. 5-18). San Francisco: Jossey-Bass.

Passy, F., & Giugni, M. (2000). Life-spheres, networks, and sustained participation in social movements: A phenomenological approach to political commitment. Sociological Forum, 15 (1), 117-144.

Plimpton, G. (Ed.). (1963-1988). The Paris Review writers at work. New York: Viking.

Polanyi, M. (1958). Personal knowledge. Chicago: University of Chicago Press.

**Michael Norton**

I am in interested in understanding the determinants of well-being, from the perspective of both psychology and behavioral economics.

In psychology, my work on well-being has centered on better understanding the link between religiosity and improved life outcomes, from health to happiness. We have demonstrated that there are demonstrable differences between religions in terms of the happiness they offer, in two ways. First, we measured changes in well-being by sending research assistants to religious services of different faiths to gather pre- and post-service ratings. Interestingly, results showed that activities such as yoga and exercise tended to offer larger boosts than any religion. Second, we conducted a national survey with a battery of tests designed to capture different aspects of well-being (e.g, depression, self-esteem), again finding evidence for considerable variance among religions in the benefits conferred. We also demonstrated the negative side of religiosity: People saw members of their own religion as much happier than members of other all religions. At the same time, however, people saw themselves as less happy than the average member of their own religion, suggesting that people feel they do not get as much from their religion as their peers, which may lead to apathy.

In the domain of behavioral economics, my research investigates the psychology of investment: How investing time, labor, and money impacts how people come to value things, from products to people, and how that investment impacts their satisfaction with their possessions and acquaintances. One project, for example, demonstrates that people value products far beyond their market price when they are forced to assemble those products themselves, suggesting that labor truly does lead to love.

Web Page: <http://web.media.mit.edu/~minorton>

**Michael Poulin**

My research addresses how people's general beliefs about the world, or worldviews (see Koltko-Rivera, 2004, for a review), relate to adjustment to stressful events across the life span. I have combined theoretical perspectives from social, health, and life-span developmental psychology to address two primary questions: 1) How do worldviews—including religious beliefs, political beliefs and attitudes, and beliefs about the benevolence or comprehensibility of the world—shape how individuals adjust to stressful events? 2) How are these worldviews, in turn, shaped by the occurrence of stressful events across the life span?

In response to my first question, I have examined two specific ways worldviews can influence adjustment to stressful life events: through individuals' attempts to make sense of stressful events and through the process of finding benefits in such events. With regards to making sense of stressful events, I have found in two separate, large-scale studies that certain seemingly "negative" worldviews (e.g., beliefs that the world is unfair or uncontrollable) can actually be positive in terms of facilitating sense-making and adjustment (Poulin & Silver, 2005a).

My research on benefit-finding focused on perceptions of social benefits (i.e., positive societal change) of the 9/11 attacks. I found that individuals with particular cultural worldviews—specifically, those who were more religious or more Republican—reported greater benefits of the attacks, particularly in the form of increased societal religiosity (Poulin, Silver, Gil-Rivas, Holman, & McIntosh, 2005). Furthermore, perceiving benefits was associated with greater well-being for religious individuals, indicating that culturally-significant worldviews lead people to interpret social change differently in the wake of trauma.

I am currently addressing my second question in my dissertation research, a prospective investigation of stressful event-related worldview change. My preliminary results, obtained using multi-level modeling, indicate that stressful life events are associated with lessened belief in the fairness or controllability of the world. In addition, I have found that two factors I hypothesized would buffer the impact of stressful events on worldviews—age and religiosity—are indeed protective of beliefs in the benevolence of the world (i.e., that the world is more good than bad). These results suggest that, consistent with past research, stressful life events can lead individuals' views of the world to become less positive, but that life experience and a means for interpreting such events can be protective of worldviews.

In my ongoing work, I am testing ideas suggested by the findings of my prior research. For example, my work on how different aspects of worldviews influence sense-making processes suggests that certain kinds of complex worldviews may be most adaptive for dealing with stressful life events. My current research seeks to build on this finding in two different ways. First, in collaboration with a fellow Positive Psychology Summer Institute scholar, I am examining the complexity of individuals' worldviews and interpretations of 9/11 by examining their narratives as embodied in open-ended questions in the 9/11 study. I anticipate that greater narrative complexity will be associated with more complex worldviews and with better adjustment. Second, I am beginning data analysis for a project examining how nuanced worldviews (e.g., the belief that people are good in general, but that politicians are rotten) may facilitate adjustment to stressful events. To evaluate nuanced worldviews, I am examining completion time of worldview survey items, theorizing that the longer it takes respondents to complete worldview items (relative to other items), the more nuanced their worldviews are likely to be. Preliminary data from a pilot sample suggests that flexibility, thus assessed, predicts less distress in response to prospectively-assessed stressful life events.

More broadly, I see my work in the future delving more deeply into the issues of adjustment to stressful life events, worldview complexity, and the motivations underlying worldviews. Potential future directions for my research include experimental studies in which motivations are manipulated to create worldview change or manipulations are used to raise or lower worldview complexity. I anticipate that these will augment what I see as my ongoing focus on understanding the myriad ways in which people's worldviews influence their adjustment to stressful events.

References

Koltko-Rivera, M. E. (2004). The psychology of worldviews. Review of General Psychology, 8, 3-58.

Poulin, M, & Silver, R. C. (2005a). Positive and negative aspects of worldviews and adjustment to trauma. Revised manuscript under review at the Journal of Personality and Social Psychology.

Poulin, M., & Silver, R. C. (2005b). Worldviews and well-being across the life span. Manuscript submitted for publication.

Poulin, M., Silver, R.C., Gil-Rivas, V., Holman, E.A., & McIntosh, D.N. (2005). Religion, politics, and perceptions of social benefits post-9/11. Revised manuscript under review at the Journal of Consulting and Clinical Psychology.

**Susan E. Rivers**

My research draws from a social and health psychological perspective to understand the conditions that promote and impede healthy living in adults and adolescents. My primary research focuses on the role emotion-related abilities, or emotional intelligence (EI), play in effective social and intrapersonal functioning.

Emotion abilities can be operationalized in two ways: performance on tests that measure ability, and scores on self-report indices measuring beliefs about one’s abilities. In a series of studies conducted with collaborators at Yale and at Skidmore, we showed that measures of performance are better predictors of effective social functioning than individual beliefs (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006). Individuals scoring higher on a performance-based test reported engaging in more behaviors fostering positive social interactions than those scoring lower, even after controlling for personality and intelligence. These results are not limited to self-reports measures. We replicated these findings in a laboratory study assessing behavioral interactions between strangers. Individuals with greater emotion abilities had more successful social interactions and engaged in more prosocial behaviors.

In my dissertation research, I probed further into the components of emotion abilities (e.g., Rivers, Brackett, Katulak, & Salovey, 2006). I examined whether emotion skills are emotion-specific or general across emotions. Discrete emotions, like anger and sadness, are characterized by their unique subjective experience, physiological arousal patterns, facial expressions, and their influence on cognitive and attentional processes. It makes sense then that mental abilities associated with emotions may not generalize across emotions. One study examined: (a) the strategies that men and women used to regulate anger and sadness, (b) the extent to which strategies differed in their use and effectiveness, and (c) the relationship between effective regulation of these emotions and social functioning. Emotion regulation attempts for anger and sadness differed to some extent in both use and effectiveness. In addition, effective regulation of each emotion was associated with different aspects of social functioning. Effective anger regulation was associated with constructive conflict resolution style, and effective sadness regulation was associated with positive social relations. The findings suggest that global approaches to studying emotion regulation may be limited and emphasize the importance of moving toward a discrete emotions framework.

I am currently testing a model of emotional literacy that posits that teaching children and adolescents the knowledge associated with recognizing, understanding, labeling, expressing, and regulating emotions as well imparting an awareness of the significance of this knowledge in effective personal, social, and intellectual functioning, contributes to positive youth development (Brackett & Rivers, in preparation). In one test of the model, my collaborators and I conducted a randomized controlled field experiment across several middle schools. Students assigned to the intervention group received Emotional Literacy in the Middle School, a 30-week language-based curriculum aimed at teaching emotion knowledge. Preliminary analyses show that compared to those in the control condition, students receiving the intervention have higher grades and are rated by teachers as having higher leadership, study, and social skills.

Relevant articles and chapters:

Brackett, M.A., & Rivers, S.E. What is emotional literacy? To appear in M.A. Brackett & J.P. Kremenitzer, (Eds.) with M. Maurer & M. Carpenter, Emotional literacy in the elementary school: Six steps to promote social competence and academic performance. Portchester, New York: National Professional Resources.

Brackett, M.A., Rivers, S.E., Shiffman, S., Lerner, N., & Salovey, P. (in press). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional intelligence. Journal of Personality and Social Psychology.

Rivers, S.E., Brackett, M.A., Katulak, N.A., & Salovey, P. (in press). Regulating anger and sadness: An exploration of discrete emotions in emotion regulation. Journal of Happiness Studies.

Rivers, S.E., Brackett, M.A., Salovey, P., & Mayer, J.D. (2006). Measuring emotional intelligence as a set of mental abilities. To appear in G. Matthews, M. Zeidner, and R. D. Roberts (Eds.), The science of emotional intelligence. New York: Oxford University Press.

**Julian Simmons**

The major aim of my research endeavours has been the investigation of basic human emotional function, and particularly its role in psychopathology. Methodologically, my focus has been upon the processing of emotional stimuli in psychophysiological paradigms, particularly in the historically neglected area of positive, or approach related behaviour and neurobiology. The application of this research to elucidating endophenotypes of disorders of positive affect, such as depression, also remains an important focus.

My experimental work kicked off with an investigation of the role of serotonin in the way we process emotional information in our environment, and how this relates to changes in affect (positive/negative). This study was carried out as part of my undergraduate degree. The design entailed giving healthy participants the SSRI Prozac (fluoxetine) or a placebo in a double blind design over 28 days (Simmons et al., 2000; Simmons et al, Submitted). Both behavioural and psychophysiological measures were utilised.

It became clear early on that the effects I was finding were not necessarily serotonergic in nature (partly due to the lack of specificity of fluoxetine for 5-HT), but none the less strongly indicated that changes in mood were occurring in healthy adults after subchronic SSRI use. We found a clear decrease in negative affect and positive affect over the 28 days of drug administration, relative to placebo. Furthermore, there were significant differences in facial muscle responsivity to affective imagery, such that fluoxetine administration resulted in increased smiling to pleasant stimuli, and increased frowning to unpleasant social stimuli after 28 days.

In a current study (as part of my PhD; Simmons, Allen, Berger & Nathan, 2003; Simmons, Allen, Berger & Nathan, 2004; Simmons, Allen & Berger, 2004), examining the effects of the SSRI Zoloft (sertraline) on healthy participants, results continue to show clear alterations in mood. In contrast to the findings with fluoxetine, there are significant trends for increased positive affect, as well as decreased negative affect in the SSRI group. The mood scales most strongly affected were low arousal/socially oriented forms of positive affect (i.e., increased joviality, self assurance, serenity) and negative affect (i.e., decreased guilt).

Within this rather involved study design, genotyping was carried out (5-HTTLPR), personality questionnaires administered, and a range of psychophysiological measures were collected while participants viewed affective pictures. These included: ERP’s, the acoustic startle response of the eye (a measure of aversive motivational system engagement) and the acoustic startle response of the post-auricular muscle (the post-auricular reflex or PAR). The PAR has recently been proposed as a measure of appetitive motivational system engagement, showing the opposite pattern of response to affective pictures as that seen for affective startle modulation. If validated, this will be the first measure of its kind (i.e., a reflex that increases during positive affective states and decreases during negative) and has the potential to tell us much of the biological basis of positive affect. Aversive responses and withdrawal behaviours associated with depression have been well studied, within clinical, healthy and animal populations; yet, investigation of appetitive responses and approach behaviours remains in its infancy. Anhedonia is a primary clinical feature of depression and yet few measures exist beyond self-report. Preliminary analyses from this study validate affective modulation of the PAR, yet more research is required as there appear to be important differences to the affective modulation of the eye blink. Initial findings have demonstrated that affective modulation of the PAR is not present in response to social imagery (Simmons et al, In Preparation).

I am in the latter stages of my PhD, and hope to finish within the next 12 months or so. I am currently working full time as a research fellow at ORYGEN Research Centre (www.orygen.org.au). ORYGEN is the largest mental health research facility in Australia, and has provided an invaluable opportunity to further my career. My current working role focuses on project management for the ORYGEN Adolescent Development Study. This study is innovative and ambitious in that it follows 250 early adolescents through their teen years while using multi-method measures across a range of developmental domains, including neurobiology (brain structure and function), psychological (affective reactivity and regulation, cognition, and behaviour), and interpersonal (family interactions). Despite slowing the progression of my PhD, such work has been most fruitful professionally and personally.

The opportunity to attend the Positive Psychology Summer Institute was very rewarding in creating an environment where young researchers could gather to discuss their work, learn and look towards the future.

Simmons, J. G., Allen, N. B., & Berger, G. (2004). The effects of chronic sertraline administration on the responsivity of the post-auricular reflex during affective picture stimuli in healthy subjects. Psychophysiology, 41 (Suppl. 1), S3.

Simmons, J. G., Allen, N. B., Berger, G., & Nathan, P. J. (2003). The influence of chronic sertraline administration on the loudness dependence of the auditory evoked potential in healthy subjects. Psychophysiology, 40 (Suppl. 1), S80.

Simmons, J. G., Allen, N. B., Berger, G., & Nathan, P. J. (2004). The influence of chronic sertraline administration on the loudness dependence of the auditory evoked potential in healthy subjects. Fundamental and Clinical Pharmacology, 18 (Suppl. 1), 141.

Simmons, J. G., Allen, N. B., Judd, F., & Norman, T. (2000). Serotonin and emotion: a psychophysiological evaluation. Psychophysiology, 37, S90.

Simmons, J. G., Allen, N. B., Judd, F., & Norman, T. (Submitted). The effects of fluoxetine on mood and emotional responsiveness in healthy adults. Biological Psychiatry.

**Christian Waugh**

Resilience is an extremely important psychological trait to study because of its wide implications for mental health. For example, resilient people have less enduring grief symptoms after a loved one dies (Bonanno et al., 2002), and score higher on indexes of global adjustment, work and social adjustment, and psychological and physical health adjustment (Klohnen, 1996). Fredrickson et al., (2003) found that after 9/11, resilient people reported more positive emotions in response to the event, and these positive emotions led to a decreased incidence of depression. Clearly, resilience is an important construct to study in order to understand how people bounce back and thrive in the face of adversity. My dissertation studies are designed to investigate the proximal cognitive and emotional mechanisms that may help resilient people adapt when faced with stressors.

In my first study, I investigated the brain mechanisms that may be responsible for allowing resilient people to adapt more quickly in times of stress in an fMRI study with an anticipation protocol. In this anticipation task, participants are first given one of two cues: the safety cue indicates that a neutral picture will appear next 100% of the time; the threat cue indicates that either a neutral (‘relief’) or aversive picture will appear on the screen next (50/50 ratio). Relative to resilient subjects, nonresilient subjects recruited more medial prefrontal cortex (MPFC) in response to a threat cue, suggesting increased processing of the emotional relevance of the cue (Phan et al., 2004). Following the threat cue, resilient subjects showed decreased right ventrolateral prefrontal cortex (rVLPFC) activation to neutral pictures, while nonresilient subjects showed similar rVLPFC activation to both aversive and neutral pictures. The right VLPFC has been implicated in invoking thoughts about and labeling negative affect, which subsequently inhibits the generation/feeling of the negative affect (Lieberman, 2003). These findings suggest that nonresilient people are 1. associating the threat cue with a greater likelihood of the negative stimuli occurring; and 2. when the neutral stimuli occurs instead, nonresilient participants fail to appropriately match their emotional response to the content of the picture (neutral) and instead respond as if the picture was negative as expected.

Study 2 is a necessary behavioral follow-up to the fMRI study to further explore how the differences between resilient and nonresilient people’s anticipation and expectation of negative events may affect their subsequent response when that event does not occur. To test the hypothesis that the increased MPFC activation by nonresilient people was because they had a greater expectation that the negative event was about to occur, participants will guess the frequency ratio of the aversive to neutral pictures after seeing the threat cue. To test the hypothesis that the greater activation of the RVLPFC in nonresilient people to the ‘relief’ neutral picture represents labeling this neutral picture as negative, participants will rate their emotional reactions to the pictures. Finally, I will investigate whether the propensity to overestimate the frequency of the negative stimuli will determine the degree to which the participants find the neutral pictures unpleasant.

Study 3 examines to extent to which resilient and nonresilient people differ in their expectation of and subsequent response to positive events. The design of Study 3 will be virtually identical to the design of Study 2, except participants will now see a third cue (‘hope’) that indicates that there is a 1/3 chance of seeing next either a positive, neutral, or negative picture. Resilient people tend to score high on trait measures of ‘hope’; therefore, I hypothesize that resilient participants will have higher expectations that a positive event will occur after seeing the ‘hope’ cue. In addition, resilient people tend to report experiencing more positive emotions on a daily basis than nonresilient people; therefore, I hypothesize that resilient participants may rate the positive pictures more positively than nonresilient participants.

Study 4 examines the psychophysiology components of the resilience difference in anticipation of possible negative stimuli and subsequent emotional response to neutral stimuli. The task design for Study 4 will be similar to the designs used in Studies 2 & 3, except participants in this study will be attached to psychophysiology measures (skin conductance [SCR/SCL], and facial muscle activity [EMG]) to measure emotional arousal and valence (respectively). The goal would be to replicate the fMRI findings and show that nonresilient participants show a stronger SCL/SCR response (and possibly more corrugator activity) to relief neutral pictures than resilient participants. Second, participants will use a rating dial to continuously rate their own emotions throughout the entire task, including anticipation, picture presentation, and subsequent recovery. In the anticipation period, nonresilient people may rate their affect more negatively than resilient participants when viewing the threat cue, and these ratings may then predict the participant’s subsequent emotional ratings during the pictures.

In sum, resilience is a very important construct to study to understand how people recover and bounce back from negative events. My dissertation consists of an fMRI study, a psychophysiology study, and two behavioral studies that attempt to investigate the psychological differences between resilient and nonresilient participants in anticipating and reacting to possible negative events. These psychological differences may inform the future study of resilience by shedding new light on the proximal cognitive and emotional mechanisms that allow resilient people to adapt and thrive in the face of significant stressors.

References:

Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? American Psychologist, 59(1), 20.

Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the united states on september 11th, 2001. Journal of Personality & Social Psychology, 84(2), 365.

Tugade, M. M., & Fredrickson, B.L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. Journal of Personality & Social Psychology, 86(2), 320.

**Dustin Wood**

My research interests are related largely to understanding social influences on the development of personality traits, dispositions, and behaviors. Some of my particular interests are described in more detail below.

Role commitment and normative mechanisms for dispositional change. Meta-analyses have shown that personality development is largely in the positive direction over the lifespan, with sizable increases in Agreeableness, Emotional Stability, and Conscientiousness. The mechanisms for these changes, however, are only beginning to be uncovered in empirical analyses. I am conducting studies exploring commitments to conventional, age-graded social roles and institutions (marriage, having children, a stable career, etc) and the internalization of role expectations as mechanisms for personality trait development.

Additionally, some theorists consider fitting in, maintaining healthy relations, and more generally avoiding the perception of being abnormal to be a universal human motives. The implications of striving to fit in with subgroups or close others has been explored at length in the social psychological and self-determination literatures, but have not been related empirically to understanding personality change. I am currently exploring how concern with ‘fitting in’ and ‘being normal’ are related to social influences on dispositional development. This has taken the form of looking at social influences on dispositional development within freshman roommate pairs, fraternity and sorority members, and other relationships.

Connecting personality traits and social situations: A current concern in personality research is how to incorporate situations and contextual information into personality trait models. Individuals clearly present different sides of themselves in different situations. I have developed a model named the Personality and Role Identity Structural Model (PRISM) to connect the systematic ways people act in particular contexts (contextualized or role identities) to general personality traits and their development. In past research I have shown that these contextualized identities are highly related to both general personality traits and to experiences in particular contexts, and also influence the development of people’s general personalities over time (Wood & Roberts, in press). I am currently investigating how contextualized identities are related to how individuals see and are seen by others within the same context, and attempting to use these identities to separate contrasting hypotheses from self-perception and symbolic interactionist models concerning the development of one’s general identity and personality traits.
References

Wood, D., & Roberts, B.W. (in press). Cross-Sectional and Longitudinal Tests of the Personality and Role Identity Structural Model (PRISM). Journal of Personality.

Roberts, B. W., & Wood, D. (in press). Personality Development in the Context of the Neo-Socioanalytic Model of Personality. In D. Mroczek & T. Little (Eds.), Handbook of Personality Development. Erlbaum.

Roberts, B.W., Wood, D., & Smith, J.L. (2005). Evaluating Five Factor Theory and social investment perspectives on personality trait development. Journal of Research in Personality, 39, 166-184.

Email: dwood@s.psych.uiuc.edu