Overview of Research Goals of Nelson-Gray Lab at the University of North Carolina at Greensboro

The main focus of the Nelson-Gray research lab has been the relationship between personality variables, environmental variables, and psychopathology. The particular view of personality that we have been using is Jeffrey Gray’s Reinforcement Sensitivity Theory, which holds a biological basis for individual differences in the Behavioral Inhibition System (BIS) and the Behavioral Activation System (BAS). The main environmental variables that we have examined are parenting styles and history of abuse. The interaction between these personality and environmental variables has been found to predict specific types of psychopathology. Based on data from our lab, the psychopathological outcomes by personality variables are summarized in the chart. There is a notable gap in the Low BIS-Low BAS quadrant. We are currently doing a study trying to determine what are the history, pastimes, and characteristics of individuals in that quadrant, compared with the other quadrants. It should be noted that a major review article heavily cites our work: Bijttbier, Beck, Claes, and Vandereycken (2009). Gray’s reinforcement sensitivity theory as a framework for research on personality-psychopathology associations. *Clinical Psychology Review*, 29, 421-430.

A more specific and recent focus are the variables that contribute to the development of borderline personality disorder. We are also examining variables that contribute to episodes of emotion dysregulation in individuals with borderline personality disorder symptoms, such as variability in romantic relationships. A related interest is variables that contribute to maladaptive coping with this emotional dysregulation, such as non-suicidal self-injury. Clinically, we also teach the skills of Dialectical Behavior Therapy (DBT) to client groups and to individuals.
**Applied Outcome Studies**

- **ODD Middle School Children and DBT Skills Training (completed)**

Dr. Nelson-Gray and Dr. Susan Keane used grant money (extramural funds from United Way and intramural funds from the Dean’s Initiative) to investigate the effects of DBT skills training on middle school children diagnosed with a minimum of Oppositional Defiant Disorder (ODD). DBT skills training (Dialectical Behavior Therapy) has been shown to be effective with adults with borderline personality disorder in Linehan’s research. It was hypothesized that DBT skills training may also be effective with ODD middle schoolers who share some of these same characteristics of affective instability, impulsivity, unstable relationships, and intense and/or inappropriate anger. Treatment lasted 16 weeks using a group format, plus pre- and post-assessment and follow-up. 32 youth completed the project with very promising results. A dozen graduate students were very active in conducting the skills training, and doing the pre-post- and follow-up assessments. We presented these successful results at two conferences, and an article describing very positive results was published in *Behaviour Research and Therapy* (2006).

- **Dream Camp – a day camp for children with Asperger’s Disorder (ongoing)**

Dr. Susan Keane and Dr. Nelson-Gray co-direct a summer day camp for children diagnosed with Asperger’s disorder. Asperger’s disorder has also been called high-functioning autism. Graduate students have an opportunity for paid summer work in the camp on both the development and implementation of social skills training programs and treatment outcome measures. As of January 2012, we are in the process of analyzing the various outcome measures that were collected in summer camp 2009 and summer camp 2010, in preparation for a manuscript submission.

- **Newcomers’ School – support groups for refugee children (ongoing)**

The Newcomers’ School is part of our county school system that works with 200-250 newly immigrated children. Dr. Nelson-Gray and Dr. Julie Mendez, along with various graduate student therapists, conducted a support group at the school for 12 Iraqi teens in the spring of 2009. In the fall of 2009, we conducted a support group for African refugee boys. We have since then conducted “grief and loss” groups and “friendship” groups with children of various cultural backgrounds, as well as transition workshops when Newcomers students are transitioning to other public schools. We have an article describing this unique work: Kaczorowski, Williams, Smith, Fallah, Mendez, & Nelson-Gray (2011). Adapting clinical services to accommodate needs of refugee populations. *Professional Psychology: Research and Practice*.

**Current and Recent Student-Initiated Research Projects**

**Personality Disorders**

- Nate Kimbrel, John Mitchell, Natalie Hundt, Dusty Robertson, and Rosemery Nelson-Gray recently completed data collection on a large study (N = 400) examining the interactive effects of BIS, BAS, and exposure to adverse parenting on Axis II symptomatology. These data were presented at a symposium at ABCT in November of 2008, and published: Kimbrel, N. A., Mitchell, J. T., Hundt, N. E., Robertson, C. D., & Nelson-Gray, R. O.
For his dissertation, Chris Lootens examined several aspects of pathological narcissism, including: theoretical aspects of this disorder, phenomenological features of narcissism (i.e., the structure of pathological narcissism), and etiological factors such as temperament and personality variables, along with parenting factors.

Generally, Stephanie Doty Skinner is interested in factors that predict aggressive behavior. One area of interest is how self-esteem relates to aggression. For many years it was assumed that high levels of aggression are related to low self-esteem. However, Baumeister, Smart, and Boden (1996) proposed that aggressive behavior does not result from low self-esteem; rather it is the result of a high self-esteem. They further proposed that violent behavior is not just due to a high self-esteem, but a combination of a high self-esteem and a threat to that self-esteem, referred to as an ego threat. In recent years, research based on the theory of threatened egotism has moved toward examining the role of narcissism and instability in high self-esteem in this association. For her thesis, Stephanie used an experimental paradigm to examine how self-esteem moderates the relation between an ego threat and reactive aggression among those high on narcissistic traits. Stephanie is working on writing up her thesis in publication format.

For his thesis, Dusty Robertson examined how adult temperament (negative affect and effortful control) and childhood experiences interact to predict borderline personality disorder (BPD) symptoms. Effortful control is defined as an individual’s ability to modulate emotional expressiveness and behavioral approach through active and conscious attentional control (Sheese & Rothbart, 2007). Dusty is currently adapting his thesis for a manuscript that demonstrates that several different childhood environmental factors (e.g., childhood sexual abuse, parental warmth, parental invalidation) interact with negative affect and effortful control to account for increased symptoms of BPD. Results from this study were presented at the meeting of the Association for Behavioral and Cognitive Therapies in New York City in November 2009.

Dusty Robertson and Nate Kimbrel conducted a study to assess the psychometric properties of the Invalidating Childhood Environment Scale (ICES). The ICES is a relatively new retrospective measure of poor parenting practices known as invalidation. Invalidating parenting is theorized by Linehan (1993) to be critical to the development of Borderline Personality Disorder. Nate and Dusty examined the internal reliability, convergent validity with other parenting measures, and predictive validity with measures of BPD. Results from this study were presented at the meeting of the Association for Psychological Science in Chicago in May 2008. This article is “in press” in the Journal of Personality Disorders.

For her thesis, Katie Kuhlken examined how borderline personality disorder (BPD) symptoms and self-reported romantic relationship satisfaction interacted to predict state positive and negative affect. Previous research has suggested that the quality of current relationships may have overall prognostic significance for individuals with BPD; however, research focused on the impact of current romantic relationships is lacking. Individuals who scored higher on measures of BPD symptoms and were in a satisfying romantic relationship were expected to report less negative affect and more positive affect than comparable individuals in an unsatisfying romantic relationship.
relationship. Participants were assessed at multiple time points in an effort to account for the instability of interpersonal relationships and affect that is characteristic of individuals with BPD. The interaction of BPD symptoms with relationship satisfaction, measured at one time point, was found to significantly predict anger, also measured at one time point, suggesting that satisfying romantic relationships may be a protective factor for individuals scoring high on measures of BPD symptoms with regards to anger. In addition, higher BPD symptoms predicted more daily anger, sadness, and anxiety; whereas greater relationship satisfaction predicted lower daily anger, sadness, and anxiety, and higher positive affect. Preliminary results from this study were presented at the meeting of the Association for Behavioral and Cognitive Therapies in San Francisco in November 2010. Katie recently adapted her thesis for a manuscript and submitted it for publication. For her preliminary examination, Katie is examining the romantic partners of individuals with BPD in terms of dimensional personality traits (e.g., five factor model, interpersonal circumplex). This project will translate into the research topic for her dissertation.

- For his thesis, Jake King will be testing a model’s ability to predict Borderline Personality Disorder (BPD) symptoms in an undergraduate sample. Trull, Tomko, Brown, & Scheiderer (2010) have argued that the symptoms of BPD can be described as an interaction between three features: affective instability, impulsivity, and interpersonal hypersensitivity. In an effort to include these and additional features, Jake plans to investigate the following variables as they relate to BPD symptoms: BIS and BAS from Jeffrey Gray’s Reinforcement Sensitivity Theory, interpersonal hypersensitivity/rejection sensitivity, invalidating parenting, and effortful control, which is a measure of emotion regulation. Effortful control is a skill that allows people to regulate their own emotional reactivity, focus their attention, and control their own behaviors (Claes, Vertommen, Smits, & Bijttebier, 2009). A person with this skill would be better able to handle the BPD-related symptoms mentioned above, and so it is hypothesized that low effortful control will predict greater BPD symptoms. Invalidating parenting will be included in the model based on Linehan’s (1993) influential argument that this is an important factor in the development of BPD. Jake will be conducting a pilot study this semester to gain some insight into the associations between these variables.

- Dusty Robertson and Chris Lootens are conducting a meta-analysis of the relationship between non-pathological parenting variables and borderline personality disorder (BPD). The target parenting variables are those of care and overprotection (Parker, Tupling, & Brown, 1979). A common effect size will be calculated for the relationship between these parental variables and BPD. The results of this meta-analysis will help to elucidate the relationship between the normative childhood environment and BPD.

- Our lab has two recent invited review articles in the Behavior Analyst Today (an on-line journal). One paper examined behaviorally-based assessment methods and treatments for personality disorders. We discussed traditional diagnostic and behavioral assessment methods for these disorders and also reviewed behavioral treatment options for this population. This included discussions regarding empirically-validated treatments (i.e., DBT), targeting problematic response classes, and use of the functional analysis in treatment. The other paper discussed a behavioral view on the development and maintenance of personality disorders.
• Holly Miskey and Eleni Vetsopoulos, a previous undergraduate lab member, conducted a study examining the role of parenting styles and family environment in schizotypal personality traits in an undergraduate sample. A negative style of family expressiveness was found to predict magical ideation, social anhedonia, perceptual aberration, and total traits. Neither maternal warmth nor maternal overcontrol emerged as significant predictors.

**Self-injurious Behavior**

• For a 751 project, Holly Miskey investigated variables that discriminate among individuals who have never self-injured, individuals who have self-injured only a few times before stopping, and individuals who continue to self-injure for prolonged periods.

• For her preliminary exam, Holly Miskey proposed a model using personality variables (sensitivity to punishment, neuroticism, and hardiness) and cognitive variables (thought content and rumination) to predict whether individuals will engage in repeated episodes of self-injury.

• For her dissertation, Holly Miskey is testing part of the model proposed for her prelim. The project examines the role of neuroticism, ruminative thought patterns, and specific cognitive content in repeated episodes of self-injurious behavior.

• Holly Miskey submitted a paper based on her master’s thesis for publication assessing the role of the Big Five dimensions and perfectionism in predicting self-laceration in a sample of undergraduate students. Duration of cutting self-injury was associated with Openness, and Introversion, as well as perfectionistic rumination. Frequency of cutting self-injury was associated with Conscientiousness, Agreeableness, low Neuroticism (accounting for about 20% of the variance), as well as perfectionistic rumination, organization, and low concern over mistakes (accounting for 31% of the variance). These findings are sometimes convergent, and sometimes discrepant with previous investigations of self-injury, suggesting potential personality differences across methods and the need for more research into personality traits and self-injurious behaviors.

• For his dissertation, Dusty Robertson is examining the contextual factors related to single instances of nonsuicidal self-injury (NSSI). Participants from UNCG, an outpatient mental health clinic, and an inpatient mental health hospital screened for recent NSSI complete 21 days of brief online questionnaires to assess NSSI behavior and related contextual variables such as amount of emotional distress and effort in not using NSSI.

**Coping**

• For her preliminary paper, Ann Shah examined the ways in which various cultural minorities cope with stress and anxiety. More specifically, she utilized Lazarus and Folkman’s (1984) stress and coping theory which highlights two major forms of coping, emotion-focused and problem-focused forms of coping. The review posited that some cultural minorities may rely on certain forms of coping over others due to social and psychological factors. Clinical and research implications were also discussed. Her dissertation project will branch from this paper.

• As part of a larger study concerning the role of coping in psychopathology, Dusty Robertson is examining the role of psychopathology, reasons for NSSI, and personality in non-suicidal self-
injury (e.g., cutting oneself, burning oneself with a lighter). Specifically, the study examined how using additional methods of NSSI used (e.g., using cutting and burning – 2 methods vs. cutting alone – 1 method) was related to the above variables. This manuscript was recently submitted to the *Archives of Suicide Research*.

- As part of the larger study referenced above, Natalie Hundt and Ann Shah are examining the relationship of coping strategies to two personality models, Gray’s Reinforcement Sensitivity Theory and the Five Factor Model. We predict that individuals high in neuroticism and sensitivity to punishment will use coping strategies like avoidance and emotion-focused coping whereas individuals high in extraversion and sensitivity to reward will use problem-focused coping. In addition, we will examine whether there is an interaction of personality and coping strategies in predicting negative affect such that for individuals high in neuroticism find that coping strategies are less effective in mitigating negative affect. This study is currently in the data analysis phase.

- As a follow-up to the larger study referenced above, Ann Shah, Natalie Hundt, and others are examining how perceived coping effectiveness interacts with coping strategies and personality variables. This study also aims to evaluate how other sociocultural variables, like femininity/masculinity, socioeconomic status, and ethnic identity influence coping processes.

- For her dissertation, Ann Shah examined the role of cognitive appraisals in mediating the relationship between reinforcement sensitivity systems and the coping strategies. Specifically, this study hypothesized that cognitive appraisals mediate the relationship between the behavioral approach and inhibition systems and three broad forms of coping, problem-, emotion-, and avoidance-focused coping strategies.

### Depression, Anxiety, and Personality

- For his thesis, Nate Kimbrel examined the joint effects of reinforcement sensitivity and exposure to adverse parenting on the prediction of depression, anxiety, substance abuse, and psychopathy. This study provided support for the hypothesis that individuals at the far ends of the BIS and BAS personality dimensions are at increased risk for a wide range of psychopathology. In addition, low levels of maternal care were found to predict many different types of symptomology, even after accounting for individual differences in personality. Furthermore, some support was found for the hypothesis that BIS sensitivity mediates the effect of maternal overprotection on anxiety symptoms. This paper was published in the journal *Personality and Individual Differences* in 2007.

- For his preliminary paper, Nate Kimbrel developed a model of social anxiety disorder based on Gray’s Reinforcement Sensitivity Theory. This model begins with genetic factors (e.g., 5-HTT polymorphism) and includes biological factors (e.g., BIS components include the amygdala, hippocampus, etc), temperament factors (e.g., behavioral inhibition), personality factors (e.g., neuroticism), developmental factors (e.g., sensitizing and stressful experiences, such as peer rejection), and cognitive factors (e.g., attention and memory biases for threatening social information. This paper was published in *Clinical Psychology Review* in 2008.

- For his dissertation, Nate Kimbrel conducted a preliminary test of the proximal aspects of the
model of social anxiety that he developed in his preliminary paper. Specifically, his dissertation tested the hypothesis that attention, memory, belief, and expectancy bias mediate the relationship between heightened BIS sensitivity and social anxiety. The study involved subjecting participants to a social threat induction procedure, as social threat is proposed to activate the BIS and move it into “control mode”. The specific threat induction procedure that Nate used involved telling participants half way through the study that they would have to give a speech at the end of the study. After this threat induction, participants were given a counterbalanced battery of the cognitive tasks, which was then followed by the measures of state anxiety. All of the participants were then required to give a brief impromptu speech at the end of the study. In addition, the participants’ performance was rated by the other audience members and the experimenters. Nate used structural equation modeling to test his model and found strong support for his main hypothesis that cognitive biases mediate the effect of BIS and BAS sensitivity on state social anxiety. A manuscript based on this dissertation was very recently published in Personality and Individual Differences.

- Nate Kimbrel, John Mitchell, Natalie Hundt, and Dr. Nelson-Gray examined the interactive effects of BIS and BAS on social anxiety symptomatology. This study specifically tested the hypothesis both high BIS and low BAS play a significant role in social anxiety. This manuscript was published in the Journal of Anxiety Disorders in 2010.

- Nate Kimbrel, Amanda Cobb, John Mitchell, Natalie Hundt, & Dr. Nelson-Gray examined the relationship between social anxiety, bulimic symptomology, and personality and parenting variables. It was predicted that exposure to low maternal care and high levels of BIS sensitivity would account for the relationship between social anxiety and bulimic symptoms, and strong support was found for this hypothesis. This paper was published in Eating Behaviors in 2008.

- For her thesis, Natalie Hundt found that different three-way interactions of BIS, BAS, and negative life events predicted anxiety and depression. In general, high BIS appeared to predict very negative emotional reactions to negative life events. This study was recently published in Personality and Individual Differences.

- For her recently completed dissertation, Natalie Hundt examined the relationships among personality, negative life events, and attention and memory biases for negative information in predicting depression. She found that high BIS, more negative life events, and more negative and fewer positive automatic thoughts are associated with greater depressive symptoms.

- Natalie Hundt, Nate Kimbrel, and members of the Kwapil lab conducted a study to examine the outcomes of BIS and BAS in daily life. This study used the ESM methodology, in which participants are given palm pilots that randomly beep eight times a day to signal them to fill out questionnaires about what they are experiencing at that moment. Results indicate that BIS predicts experiencing negative affect whereas BAS predicts experiencing activated positive affect (feeling excited, energized, etc.) but not calm positive affect (happy). BIS predicts feeling less confident, feeling less able to succeed at the task at hand, and feeling less close to the individuals with whom one is currently spending time. This study is currently under review.

- Natalie Hundt, Nate Kimbrel, and John Mitchell, conducted another study to examine the outcomes of BIS and BAS in daily life using a questionnaire methodology. BAS predicted
positive social behaviors (seeking out friendships) and outcomes (more social support). BIS predicted negative social behaviors and outcomes. This study was published in Individual Differences Research.

**Personality Assessment**

- John Mitchell, Nate Kimbrel, Natalie Hundt, Amanda Cobb, & Rosemery Nelson-Gray examined the relationship between Reinforcement Sensitivity Theory (RST) and the Five Factor Model (FFM). These are two personality theories frequently applied to similar research topics, such as psychopathology. Although we know the relationships between each theory and psychopathology, for example, little is known about the correspondence between both theories. This study was published in the European Journal of Personality.

**Attention Deficit Hyperactivity Disorder (AD/HD)**

- For his thesis, John Mitchell studied J.A. Gray’s Reinforcement Sensitivity Theory of the Behavioral Approach System (BAS) and its relation to hyperactive-impulsive symptoms in adult Attention-Deficit/Hyperactivity Disorder (AD/HD). This personality theory has a long history of involvement in accounting for disinhibitory AD/HD deficits; however, these accounts propose that the underactivation the Behavioral Inhibition System (BIS) is responsible for AD/HD hyperactive-impulsive symptoms. The underactive BIS account (i.e., lack of responsiveness to environmental cues to punishment), however, has not received much support. The hypothesis that self-reported BAS scores would predict hyperactive-impulsive AD/HD symptoms in a hierarchical regression model was supported, while BIS scores did not predict these symptoms. This study was published in the journal Personality and Individual Differences in March 2006.

- For his preliminary exam paper, John Mitchell examined the relationship between RST and AD/HD. Specifically, he reviewed pathways of disinhibition in AD/HD that lead to poorly regulated, impulsive behavior and established an account of impulsivity based on RST. Clinical, research, methodological, and theoretical implications are reviewed to guide future research, along with proposals about the relationship between RST and AD/HD and an empirically-guided rationale to assess them.

- Recent reviews indicate overactive approach motivation tendencies offer a causal pathway to hyperactive-impulsive behaviors characteristic of AD/HD. These tendencies are addressed in Gray’s biologically-based Reinforcement Sensitivity Theory (RST). Specifically, RST proposes overactive approach tendencies are associated with over responsiveness to rewarding stimuli and result from an overactive appetitive motivational subsystem of the brain—the Behavioral Approach System (BAS). For his dissertation, John Mitchell assessed the relationship between RST and AD/HD with a behavioral measure of BAS functioning (in addition to self-report), considered methodological factors (e.g., comorbidity and reinforcement expectancy), and theoretical issues (e.g., whether anxiety is a protective factor for impulsive behavior). Structural equation modeling was conducted to assess different models on the relationship between AD/HD symptoms, Conduct Disorder (CD) symptoms, and the BAS. This study was published in the Journal of Attention Disorders in 2010.
• John Mitchell, Laura Knouse, Tom Kwapił, and Rosemery Nelson-Gray published a study in the Journal of Attention Disorders in 2009 on the self-report of adult AD/HD symptoms. This paper supported that the rate of ADHD symptom endorsements significantly differed within participants depending on the context of item presentation (i.e., listing symptoms serially versus interspersed among non-DSM ADHD items) across two independent samples. Such variability may impact the number of adults who reach the DSM-IV threshold for the disorder and has clinical implications for how self-reported AD/HD symptoms are assessed. Future research must clarify which type of item placement is more externally valid for assessing AD/HD symptoms in adults as both methods of item presentation are widely used in various ADHD measures.

• John Mitchell, Laura Knouse, Rosemery Nelson-Gray, & Arthur Anastopoulos presented a poster at the Association for Behavioral and Cognitive Therapies 2006 conference on a newly developed self-report measure that proposes developmentally appropriate items to assess AD/HD in adults: the AD/HD Symptom Inventory for Adults (ASIA). For the current study, the factor structure and the convergent validity were assessed. Although the factor structure of the ASIA was not supported, the ASIA exhibited very good levels of reliability, convergent and divergent validity, and predicted functional impairment scores above and beyond existing measures of AD/HD.

• John Mitchell, Natalie Hundt, Rosemery Nelson-Gray, and Arthur Anastopoulos (2005) completed a study examining whether AD/HD symptoms in childhood are predictive of Cluster B Personality Disorder Symptoms. Both Cluster B Personality Disorders and AD/HD symptoms have been theoretically associated with high levels of impulsivity. It was hypothesized that retrospective self-reported hyperactive-impulsive AD/HD symptoms in childhood would predict Cluster B Personality Disorder Symptoms. These findings supported that these AD/HD symptoms are predictive of Cluster B Personality Disorder symptoms.

Externalizing Behaviors

• Natalie Hundt, Nate Kimbrel, and John Mitchell completed a study surveying the relationship of BIS and BAS to several externalizing disorder symptoms, including AD/HD, drug and alcohol abuse, and primary and secondary psychopathy. The results of this study indicated that high BAS serves as a general diathesis for all types of externalizing disorder symptoms. Low BIS appeared to play a role in drug abuse. This study was published in Personality and Individual Differences.

• For her preliminary paper, Stephanie Doty Skinner developed a model that predicts prosocial versus antisocial behavior in the context of social exclusion. This model includes intrapersonal and situational factors that influence the type of responses people have to social exclusion. Specifically, the model predicts that intrapersonal factors, such as personality factors (e.g., fear of negative evaluation and rejection sensitivity) and cognitive factors (e.g., executive functioning impairment), and situational factors, such as cues for reaffiliation will predict whether people respond to social exclusion in prosocial or antisocial ways.

Annotations
John Mitchell graduated, completed a post-doctoral fellowship at Duke University, and is currently a research associate at Duke University.

Nathan Kimbrel graduated, completed a post-doctoral fellowship at the VA Center for Research Excellence in Waco, Texas, and is currently a research psychologist at the same center.

Natalie Hundt completed her pre-doctoral internship at the Salem VA Center in Salem, Virginia; graduated, and is currently on a research post-doctoral position at South Central VA (Houston) Mental Illness Research Education and Clinical Center.

Christopher Lootens graduated, and is currently an Assistant Professor at High Point University.

Ann Shah Williams is completing her pre-doctoral internship at the Durham VA Medical Center in Durham, NC. She has completed her dissertation, and her Ph.D. will be awarded in August 2012.

PUBLICATIONS, POSTERS, and PRESENTATIONS

a. Books:

b. Recent articles in refereed journals:


361. (Invited commentary).


**c. Invited chapters:**

**d. Publications under review:**


- Lootens, C.M. Hurst, R.M., Hundt, N.E., Mitchell, J.T., & Nelson-Gray, R.O. Personality beyond the Big Five: “Oddity” as defined by the autism and schizophrenia spectrums.

**e. Presentations at professional meetings**

Meeting of the American Psychological Association, August, 2012, Orlando

Meeting of the American Psychological Society, May, 2012, Chicago

Meeting of the North Carolina Psychological Association, Charlotte, April, 2012
--Hong, J.E., Miskey, H., & Nelson-Gray, R.O. The associations among behavioral inhibition, achievement anxiety, and parenting styles.

Meeting of the Association for Behavioral and Cognitive Therapies, November, 2011, Toronto
--Williams, A. Shah & Nelson-Gray, R.O. The role of Reinforcement Sensitivity and cognitive appraisals in predicting coping strategies.


Meeting of the Anxiety Disorders Association of America, March, 2010, Baltimore

--Moore, J., Robertson, C., Keane, S., Nelson-Gray, R. O. Modifying social skills training for a child with high-functioning autism and comorbid social anxiety.


--Nelson, R.O. Overcoming the glass ceiling: Lessons learned and lessons to give: A conversation with the trailblazers. Invited address.

--Robertson, C. D., Hundt, N. E., Shah, A. M., & Nelson-Gray, R. O. The equifinality of borderline personality disorder: Multiple interpersonal environmental variables interact with temperament to account for symptoms of BPD.


--Mitchell, J. T., Robertson, C., Hundt, N., Farmer, R. F., Nelson-Gray, R. Risky behavior and personality: Do different personality constructs uniquely predict risky behaviors and their associated functions?


Meeting of the Association for Psychological Science. May, 2009, San Francisco.

Meeting of the North Carolina Psychological Association. April, 2009, Chapel Hill, NC.

--Hurst, R.M., Nelson-Gray, R.O., Kwapil, T.R., Mitchell, J.T., Hundt, N.E., & Kimbrel, N.A. Autism traits are consistent with schizophrenia spectrum traits.

Meeting of the American Psychological Association, August, 2008, Boston, MA.
Meeting of the North Carolina Psychological Association, April, 2008, Chapel Hill, NC.
Ambro, E., Kimbrel, N.A., & Nelson-Gray, R.O. BIS, BAS, adn the relationship between social anxiety and depression


Meeting of the Association for Psychological Science, May, 2008, Chicago


Robertson, C.D., Kimbrel, N.A. Nelson-Gray, R.O., Hundt, N.E., & Lootens, C.M. Validation of invalidation: Assessing the invalidating childhood environment scale

Meeting of the North Carolina Psychological Association, April, 2008, Chapel Hill, NC.


Kimbrel, N.A., Robertson, C.D., Mitchell, J.T., Hundt, N.E., & Nelson-Gray, R.O. Parental rearing styles fail to predict Cluster B symptomology after considering the effects of basic personality traits.


Meeting of the Association for Psychological Science, May, 2007, Washington, DC.

the joint-subsystems hypothesis.


Meeting of the North Carolina Psychological Association, April, 2007, Chapel Hill, NC.

--Lootens, C.M., Mitchell, J.T., Robertson, C.D., & Kimbrel. Borderline personality disorder and dimensions of impulsivity.

--Kimbrel, N.A., Hundt, N.E., Mitchell, J.T., Lootens, C.M., & Nelson-Gray, R.O. Does reward sensitivity account for the link between bulimia and substance abuse?

Veronica had a poster here too, but I don’t have the reference

Meeting of the Association for Behavioral and Cognitive Therapies, Chicago, IL, November, 2006


Meeting of the North Carolina Psychological Association, Charlotte, April 2006

Cobb, A.R., Nelson-Gray, R.O., & Lootens, C.M. The relationship between the spectrum of bulimic behaviors and attitudes and the Five Factor model of personality in college females (winner of 2006 Graduate Research Award)

Meeting of the Association for Behavioral and Cognitive Therapies, Washington, D.C., Nov 2005

--Hundt, N.E., Mitchell, J.T., Korotitsch, W.J., Boydston, J., Nelson-Gray, R.O., & Anastopoulo, A.D. Are Retrospective AD/HD Symptoms Predictive of Personality Disorder Symptoms in Adults?

--Hurst, R.M., Nelson-Gray, R.O., Mitchell, J.T., & Kwapis, T.R. The Relationship of Asperger’s Characteristics and Schizotypal Personality Traits in a Non-Clinical Adult Sample

--Kimbrel, N.A., Nelson-Gray, R.O., & Mitchell, J.T. Reinforcement Sensitivity and Exposure to Low Maternal Care as Predictors of Anxiety, Depression, Psychopathy, and Substance Abuse


Cobb, A. Are Estimates of Clinically Relevant Behaviors as Accurate as Counting in Assessing Childhood Disorders?

Southeastern Psychological Association Undergraduate Research Program, April 2005
--Hardy, A., de Mayo, R., & Nelson-Gray, R.O. Social phobias and personality traits.

**f. Research grants**

- “Application of DBT skills to aggressive middle-school children” – with Susan Keane – intramural funding by Dean’s Initiative, Fall, 2001, about $14,000.
- “Application of DBT skills to aggressive middle-school children” – with Susan Keane – extramural funding by United Way, Community Health Initiative Funding, Fall, 2001; about $14,000.
- “Application of DBT skills to aggressive middle-school children” – with Susan Keane – extramural funding by United Way, Community Health Initiative Funding, Renewed Fall, 2002 through April 2004; about $24,000.
- Grant proposal letter of intent submitted to NARSAD 5-15-01 “Identification of life events related to schizophrenic decompensation” – not pursued by NARSAD
- Challenge R-34 grant proposal, NIMH, Spring and Summer 2009, with Susan Keane, RFA=Addressing heterogeneity in autism spectrum disorders. Supplemented social skills training for Asperger’s disorder. Not funded.
- Graduate Psychology Education Program (GPEP). Co-investigators: Susan P. Keane, Julie Mendez, Rosemery Nelson-Gray. Awarded for August 1, 2010-July 21, 2012. Federal program dedicated solely to psychology education and training. Established in 2002 and administered by the Bureau of Health Professions (BHP), the GPE Program provides grants to APA-accredited doctoral, internship and postdoctoral programs in support of interdisciplinary training of psychology students for the provision of psychological services to underserved populations. The UNCG clinical program has held two previous GPEP grants as well.