

Curriculum Vitae  
**Colin B. Bowyer, B.S.**

Department of Psychology  
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## Education

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### 2014 Bachelor of Arts, Psychology

Department of Psychology, Florida State University, Tallahassee, FL  
*Minor:* Mathematics  
Overall GPA: 3.61  
Psychology GPA: 3.88

## Research Experience

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### 05/2011 – 02/2013 Florida Department of Transportation Cognitive Psychology Lab

*Undergraduate Research Assistant*

Research Supervisor: Walter Boot, Ph.D.

Principal Investigator: Walter Boot, Ph.D.

- Conduct research with a driving simulator
  - Calibrate portable eye-tracker
  - Instruct participants how to use driving simulator
  - Review videos of simulator performance and draw regions of interest (ROI's)
- Conduct research with portable eye-tracker in parking lots
  - Instruct participants where to walk and inform about safety protocol
  - Calibrate portable eye-tracker in outdoor setting
  - Communicate with confederates as part of the experiment
- Conduct observational studies involving behavior in crosswalks
  - Observe pedestrian behavior within two hour windows at specific sites
  - Quantify behavior and return results to lab coordinator
- Administer behavioral tests using E-Prime presentation software
  - Instruct elderly participants how to run through experiments
  - Administer payment and escort participants after experimental procedure

### 05/2012 – 08/2012 Johnson Neuroscience Lab

*Undergraduate Research Assistant*

Research Supervisor: Frank Johnson, Ph.D.

Principal Investigator: Frank Johnson, Ph.D.

- Cut and organize zebra finch brains
- Use custom software to map speech circuits in zebra finch brains

- Navigate through brain slices and draw regions around circuits of interest
- Render three-dimensional representation of circuit
- Feed zebra finches used in studies

05/2013 – present **Patrick Clinical Neuroscience Lab**

*Post-Baccalaureate Researcher/Undergraduate Research Assistant(05/2013-05/2014)*

Research Supervisors: Christopher Patrick, Ph.D.; Jens Foell, Ph.D.

Principal investigator: Christopher Patrick, Ph.D.

- Program tasks using E-Prime Presentation Software
  - Create cognitive tasks
    - Modified Task-Switching paradigm
    - Modified Stroop Task
    - Shock Calibration
    - Task-Switching with Threat of Shock
    - Mu-Suppression Pain Empathy Task
    - Anti-Saccade task
  - Prepare tasks for integration with EEG collection software
    - Program task to send data-collection points at critical points
    - Time tasks at high-resolution to ensure delivery of collection points within 2ms of stimulus delivery
- Use Neuroscan to collect and analyze EEG and EMG data
  - Create files for different EEG and EMG setups
  - Epoch EEG and EMG data for subsequent analysis
- Use Matlab to process, clean, and analyze EEG and EMG data
  - Hand-score EEG and EMG components
  - Filter EEG and EMG data
  - Replace bad electrode data with mean amplitude of surrounding electrodes
  - Modify EEG and EMG sample-rates
  - Plot EEG and EMG component waveforms
  - Plot EEG and EMG component topomaps
  - Create statistical comparison Topomaps and waveforms
- Use SPSS to analyze Physiological, behavioral, interview, and self-report data
  - Create scripts for data importing
  - Create scripts for data analysis
  - Create scripts to score self-report, interview, and behavioral data
- Manage Server organization
  - Create virtual machines
  - Manage storage space
  - Solve miscellaneous networking issues
  - Interface with information technology department to solve server issues
- Manage lab equipment
  - Manage creation of negative stimulus generator
  - Clean and repair EEG caps, electrodes, and connectors
  - Maintain and organize connections between lab computers
- Prepare manuscripts and presentations at professional conferences
- Run over 100 participants through physiological data collection

## Clinical Experience

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05/2013-Present **Psychological Counseling and Associates**

*Live-in Assistant*

Supervisor: Lance D. Scalf, Ph.D.

- Monitor diet and blood-sugar
- Accompany patient with schizophrenia on outings to public areas
  - Grocery shopping
  - Sporting events
- Help prepare patient for volunteer interviews and opportunities
- Help patient with basic exercise routines
- Monitor any severe positive or negative symptoms
- Assist in daily grooming

## Publication History

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### Manuscripts in Preparation

**Bowyer C.**, Yancey J., Joyner K., Venables N., Hajcak G., Patrick C., *The Reward Positivity and Depression: Dissociating Trait and State Depression.*

### Conferences

Poster Presentations:

Perkins E., Brislin S., Yancey J., **Bowyer C.**, Patrick C., (September 2016) *Dissociating Disposition Traits Using Electrocardiac Indicators: The Heads-and-Faces Oddball Task.* Society for Psychophysiological Research (SPR) Annual Meeting, Minneapolis, MN.

**Bowyer C.**, Palumbo I., Yancey J., Sowards S., Foell J., Patrick C., (September 2016). *Enhanced Error Related Negativity Under Threat of Shock: Evidence from a Task-Switching Paradigm.* Society for Psychophysiological Research (SPR) Annual Meeting, Minneapolis, MN.

Joyner K., **Bowyer C.**, Yancey J., Hajcak G., Patrick C., (September 2016) *Distinct Behavioral Performance correlates of the ERN and PE in the Flanker Task.* Society for Psychophysiological Research (SPR) Annual Meeting, Minneapolis, MN.

Brislin S., Yancey J., **Bowyer C.**, Patrick C., (September 2016) *Early ERP Responses to Emotional Faces: Category, Intensity, and Train Effects.* Society for Psychophysiological Research (SPR) Annual Meeting, Minneapolis, MN.

Yancey J., **Bowyer C.**, Foell J., Hultstrand K., Patrick C. (September 2016) *Turning Up the Heat on Cold Cognition: Task-Switching Under Threat.* Society for Psychophysiological Research (SPR) Annual Meeting, Minneapolis, MN.

**Bowyer C.**, Venables N., Yancey J., Patrick C., Hajcak G., Worthy D. (September 2015) *Distinct Brain Correlates of General Disinhibition Vs. Substance Abuse: Evidence from an ERP/Gambling Task Paradigm.* Society for Psychophysiological Research (SPR) Annual Meeting, Seattle, WA.

Brislin S., Yancey J., Drislane L., **Bowyer C.**, Roche N., Patrick C. (September 2014) *P3 Amplitude Shows Differential Relations With Triarchic Psychopathy Facets.* Society for Psychophysiological Research (SPR) Annual Meeting, Atlanta, GA.

**Bowyer C.**, Katz R., Poli E., Yancey J., Patrick C. (September 2014) *Dispositional Threat Sensitivity and Aversive Startle Potentiation: Moderating Impact of General Distress*. Society for Psychophysiological Research (SPR) Annual Meeting, Atlanta, GA.

**Bowyer C.**, Foell J., Patrick C. (July 2015) *Facets of Psychopathy as Moderators of Cognitive Flexibility*. Society for Scientific Study of Psychopathy (SSSP) Bi-annual Meeting, Chicago, IL.

Olson L., Yancey J., Flaisch T., Kirmse U., **Bowyer C.**, Schupp H., Patrick C. (July 2015) *Reduced LPP Brain Response During Serial Rapid Picture Processing Covaries with the Disinhibitory Facet of Psychopathy*. Society for Scientific Study of Psychopathy (SSSP) Bi-annual Meeting, Chicago, IL.

### **Honors Thesis**

**Bowyer C.B.** Development of an Emotional Task-Switch Paradigm to Explore Boldness and Inhibition-Disinhibition as Moderators of Task-Switch Performance. (Undergraduate Honors Thesis). FSU Digital Repository (ID: FSU\_migr\_uhm-0409).