RAC/WARDEN APPLICATION FOR RESEARCH SUPPORT

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Are you a Clinical Student? (Y/N) N Your e-mail: nharp@huskers.unl.edu

Title of Project: Ambiguous Words and Non-Words: Stimulus Development

Is this a project for your MERPor Dissertation (circle one). Other projects may be funded but if funds are limited, MERPs and dissertations will be given priority.

Research compliance (IRB or IACUC) approval status (give date of approval and project number if approval has been completed)\* Approved 1/16/2015. Project #14791

\*Research funds cannot be used for *conducting* research until research compliance has been approved, but proposals can be reviewed while IRB or IACUC approval is pending. In some rare catch-22 cases (e.g., where the IRB will not approve a proposal without seeing a copyrighted test instrument that is to be purchased with requested funds) permission can be granted for reimbursement for such a purchase.

Total Amount Requested ($500 max depending on availability of funds) $500

List all other funding sources to which you have applied to support this project and indicate the amount, if any, you have been awarded:

Please attach a 1-2 page description of the research project that includes a **budget** and a **description and justification of each item in that budget**. Please refer to the documentation of RAC/Warden funding policies for information about items that are not likely to be reimbursed or require specific detailed justification as outlined in the Graduate Handbook

Faculty Sponsor’s Signature \_\_\_\_ Your Signature 

**PLEASE SUBMIT *ONE* COPY OF THIS COMPLETED AND SIGNED FORM AND ATTACHMENTS TO JAMIE IN THE PSYCHOLOGY DEPARTMENT OFFICE, 238 BURNETT. WHILE APPLICATIONS FOR RESEARCH SUPPORT MAY BE SUBMITTED AT ANY TIME DURING A FUNDING PERIOD, SUBMISSION BY TRAVEL FORM DEADLINES (Sept 15th, Jan 30th and June 1st) WILL FACILITATE TIMELY CONSIDERATION. NOTE THAT PER WARDEN POLICY, STUDENTS MAY NOT RECEIVE RESEARCH AND TRAVEL FUNDING IN THE SAME PERIOD (e.g., receive both for Sept-Jan) BUT THIS DOES NOT APPLY TO RAC.**

**Introduction** **and** **Design**

Emotionally ambiguous stimuli (e.g., surprised facial expressions) are a powerful tool for quantifying emotional biases towards either positivity or negativity; this measurement is known as valence bias. Surprised expressions, like other ambiguous stimuli, predict both positive (e.g., birthday party) and negative (e.g., car accident) events. Previous work shows that individuals differ in their tendency to interpret ambiguous faces (Neta, Norris, & Whalen, 2009), and that this is positively correlated with their interpretations of ambiguous scenes as well (Neta, Kelley, & Whalen, 2013). Differences in interpretation biases are linked to psychopathology, including depression and anxiety (Matthews & MacLeods, 2005), making these a valuable tool for evaluating behavioral variation in healthy populations that may be related to pathological behavior. In the present research, we intend to introduce two additional categories of ambiguous stimuli: words and non-words. In particular, we predict that valence bias, as measured with faces and scenes, will correlate with biases in the interpretation of both ambiguous words (e.g., jam, patient) and non-words (e.g., tunba, volkov).

Participants will be recruited from Amazon’s MechanicalTurk (MTurk). First, we will confirm that our proposed ambiguous stimuli actually elicit large standard deviations in valence ratings, an intuitive index of ambiguity at the group level. We will need to run an initial study in which MTurk participants rate our positive, negative, and ambiguous words for this purpose. After, we will need to have participants rate the words in a forced-choice paradigm (positive, negative) as is typically done when measuring valence bias task with faces and scenes. Additionally, participants will complete the Implicit Positive and Negative Affect Test (IPANAT; Quirin, Kazen, & Kuhl, 2009). This measure uses non-words and asks participants to rate the stimuli on both positive and negative dimensions. Including both words and non-words will allow for us to test the effects of valence bias on ambiguous stimuli with and without prior connotations. The Warden research funding would cover the entirety of data collection on the project and could provide assistance with disseminating the research findings.

**Budget**

(96 participants \* $2.59) \* 2 (Study 1, Study 2) = $497.28

Participants will receive $2.25 for participating in the project. Amazon charges a 15% fee for Mturk participants, so the actual cost per participant will be $2.59. We would like to maximize our sample size in order to achieve sufficient power to detect these effects, but also to gather a diverse and representative sample since these stimuli will be used in many future studies.

**References**

Matthews, M., & MacLeod, C. (2005). Cognitive vulnerability to emotional disorders. *Annual Review of Clinical Psychology, 1*(1), 167-195. doi: 10.1146/annurev.clinpsy.1.102803.143916

Neta, M., Kelley, W. M., & Whalen, P. J. (2013). Neural responses to ambiguity involve domain-general and domain-specific emotion processing systems. *Journal of Cognitive Neuroscience*, *25*(4), 547-557.

Neta, M., Norris, C. J., & Whalen, P. J. (2009). Corrugator muscle responses are associated with individual differences in positivity-negativity bias. *Emotion,* *9*(5), 640-648. doi: 10.1037/a0016819\

Quirin, M., Kazen, M., & Kuhl, J. (2009). When nonsense sounds happy or helpless: The implicit positive and negative affect test (IPANAT). *Journal of Personality and Social Psychology*, *97*(3), 500-516. doi: 10.1037/a0016063.