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REQUEST FOR APPROVAL FOR USE OF HUMAN PARTICIPANTS IN RESEARCH

For use by IRB Administrator only:
Proposal No: Date Received: Action Date: Action Notes: Initials: Notification sent:

Instructions (If you need help call 5748 or email peelle@kenyon.edu)

1. SAVE this file to your own computer files.
2. Fill out, (use tab key to navigate) save; send a copy to all appropriate parties. A signed copy of the assurance page should be sent in hard copy to: IRB Administrator, Bailey House, Kenyon College, Gambier OH 43022, in campus mail or U.S. mail. (Or hand deliver)
3. Send a completed copy of your application and all supporting materials as MS Word files via email to the IRB Administrator (Review cannot begin until the IRB Administrator has received all materials in the required formats.)

Remember to sign the assurance form before submitting. *(Students will also need to have their faculty supervisor's signature.)* To ensure expeditious review of this project, please be as specific and complete as possible in your responses, and provide all necessary supporting materials (e.g., consent forms, surveys, interview scripts).

Date: 10-22-13 Department/Course No: Psychology & Neuroscience
Principal Investigator (PI): Tabitha W. Payne, Ph.D. PI Phone #: 5249 PI Email: paynet@kenyon.edu
All other Investigators/team members on this project (Names and Email): Kelly Boland bolandk@kenyon.edu; Ali Goergen goergena@kenyon.edu; Madi Thompson thompsonm@kenyon.edu; Lauren Anderson andersona@kenyon.edu; Caroline Pearl pearlc@kenyon.edu (These students are enrolled in Advanced Research in Psych (Psych 450) or Independent study in Neuroscience) and have completed CITI training.

If Principal Investigator is a student:
Name of faculty supervisor: Email:
(Note: faculty supervisor's signature must appear at the end of this form.)

Project Title: Visual Perception and Reported Mood, Stress, and Fatigue II
Project involves:

- ☒ Faculty research
- ☒ Student research in fulfillment of a course requirement
- ☐ Independently conducted student research
- ☐ Other (specify)

Anticipated Start Date: 11/07/2013 mm/dd/yyyy Anticipated End Date: 05/05/2014 mm/dd/yyyy
*NOTE: Beginning date cannot predate IRB approval date.

NO RESEARCH may be done before IRB Approval of your protocol

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A. NATURE OF THE PROJECT

A1. Briefly describe your research project and explain why it is of interest. What are the study objectives? What research, if any, has been done in this area and how does it inform your project? Why is this research important? How is this study different, novel, or unique from earlier research in this area? How will this project contribute to the discipline and society? How do the benefits of the research justify any possible risks that might be incurred by the participants in the study?

Enter Text: The goal of this study is to better understand the relationship between cognitive functioning, specifically mental speed, and mental health issues such as mood states, fatigue, nutrition, and stress. Previous research has discovered a significant relationship between depressed mood and performance on a speeded discrimination test (Tsourtos, Thompson, & Stough, 2002). The current research aims to replicated and elaborate on these findings by using both the speeded discrimination task as well as a relatively novel mental speed task that measures mental speed on an even more basic level, requiring detection of letters presented for various durations. Another goal is to examine the potential relationship between the mental speed measures and other health-related issues, such as fatigue, percieved stress levels and nutrition, since these variables often affect working memory, but have yet to be examined in relation to mental speed. This research is important because findings may help to understand which health factors are linked to reduced cognitive ability and performance.

A2. Specify the procedures that will be used in the study. Your description should include (a) a description of your methods, including details of data collection including how you will record the information: if you use a data sheet, include the sheet; (b) a description of how you will recruit your subjects; (c) all verbal statements that will be made to participants, particularly any statements that will be misleading or deceptive, as well as statements during the debriefing period; and (d) all written materials, including questionnaires, surveys, or tests, to be given to participants during the course of the study. If your methods involve conducting "open ended" interviews or focus groups, you should submit an outline of the areas you will cover and basic questions that will be asked to guide the subjects. (All supporting materials should be sent as MS Word files via email to peelle@kenyon.edu at the same time you submit the application.)

Enter Text: Volunteers will be scheduled to participate individually in sound attenuated lab rooms of the Cognition Lab in Samuel Mather Hall. Participants read the consent form and provide a written signature for consent. Once consent is obtained, participants will fill out surveys online via Survey Monkey.

http://www.surveymonkey.com/s/HealthandStress

Demographic Survey

Participants will complete a short survey to gather demographic information as well as complete self-report items relevant to attentional behaviors. The demographic survey will ask for information regarding age, sex, and education level. This survey will also ask questions concerning health issues such as smoking, alcohol use, use of general medication, and history of diagnosis and/or treatment of depression, anxiety, and Attention Deficit Hyperactivity Disorder (ADHD). Participants will be made aware via the consent form that providing this information is completely voluntary, and that they may complete as much or as little of the survey as they wish.

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Food Cravings Questionnaire-Trait (Stunkard & Messik, 1985)

Habitual food cravings were measured using the trait subscale of the Food Cravings Questionnaire. The test is comprised of 39 questions assessing the stability of food cravings within an individual across time and different situations. Individuals respond to statements, such as “I feel less anxious after I eat,” using a 6-point Likert scale from 1-never/not applicable to 6-always. The test contains nine dimensions of food cravings relating to (1) Having intentions and plans to consume food, (2) Anticipation of positive reinforcement that may result from eating, (3) Lack of control over eating, (4) Thoughts or preoccupation with food, (5) Craving as a physiological state, (6) Emotions that may be experienced before or during food cravings or eating, (7) Cues that may trigger food cravings, (8) Guilt from cravings and/or giving into them, and (9) Relief from negative states.

Food Cravings Questionnaire- State (Cepeda-Benito et al., 2000)

Momentary food cravings at the time of assessment is measured using the state subscale of the Food Cravings Questionnaire (Cepeda-Benito et al., 2000). Individuals respond to 15 items, such as “I have an urge for (one or more specific foods),” using a 5-point Likert scale from 1-strongly disagree to 5-strongly agree. The test contains five subscales of food cravings relating to (1) An intense desire to eat, (2) Anticipation of positive reinforcement that may result from eating, (3) Lack of control over eating, (4) Relief from negative states, and (5) Craving as a physiological state. The highest possible total score is 25, representing a high craving state.

Mood Inventory I - State/Trait Anxiety (Spielberger, Gorsuch, & Lushene,1964)

This 21-item self-report survey asks participants to answer multiple choice questions concerning their current feelings (e.g, fear and anxiousness) and cognitions (e.g, ruminations or nervous thoughts). The survey will also ask questions about physical symptoms of anxiety such as being jittery, nervous, and tense. This inventory was designed in order to assess and detect anxiety symptoms. To score the test, a value of 0 to 3 is assigned for each answer and then the total score is compared to a key to determine the anxiety’s severity.

Mood Inventory II - Anxiety (Beck, Brown, Epstein, & Steer 1988)

This inventory asks 21 questions about participants’ feelings in the past week, focusing mainly on somatic systems. Each statement, such as “sweating not due to heat” presents 4 response options from “Not at all” to “Severely.” Scores on the BAI range from 0 to 63, minimal level of anxiety to severe anxiety respectively. Because the BAI focuses on somatic symptoms, it does not overlap with the BDS, but it can potentially overlap with other medical conditions.

Mood Inventory III - Reported Depression Symptoms (Beck, Steer, & Brown 1996)

This tool is one of the most widely used instruments used to measure the severity of depression. The measure contains 21 questions pertaining to the participant’s feelings and mood. Each answer is scored

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on a scale value of 0 to 3. A higher reported total score is an indicator of how intensely a participant is experiencing symptoms associated with depression. The benefit to using a non-clinical sample is that if we find differences in inspection time between those who qualify for depression and those who do not, then it will be a strong predictor that we might find even greater differences in an in-patient sample.

Positive and Negative Affect Schedule (Watson, Clark, & Tellegen 1988)

The Positive and Negative Affect Schedule (PANAS) was given to participants, which measures their current affective state with 20 questions about currents feelings such as “irritable” or “enthusiastic.” Participants then rate each emotion on a scale of 1 (very slightly) to 5 (extremely). Both the positive affect score and negative affect score can range from 10 (least positive or negative) to 50 (most positive or negative).

Attention to Emotions of Self - Adapted from the Trait Meta Mood Scale (Salovey et al 1995)

This is a 13-item survey that asks participants to rate how much they agree with statements regarding how much they typically give cognitive attention and thought to their emotions. Participants respond on a 5 point Likert scale, with 1 being strongly disagree and 5 being strongly agree.

Situational Test of Emotional Understanding (STEU), (MacCann & Roberts, 2008)

The STEU is a 44-item situational judgment test of emotional intelligence, specifically emotional understanding. Each item describes either a situation to which the test-taker must identify the correct emotional reaction (Ex. 1) or an emotion to which the test-taker must identify the correct situational stimulus (Ex. 2). There are five possible answer choices for each item. The test-taker receives one point for every item answered correctly, leading to an inclusive total score of 44 points.

Revised Piper Fatigue Scale (Piper, Dodd, Ferketich, Paul, & Weller 1989)

This 22-item survey asks participants questions concerning the four factors of fatigue: sensory, affective meaning, cognitive/mood and behavioural/severity. For example, “For how long have you been experiencing fatigue?” or “Overall, how much is the fatigue which you are now experiencing interfering with your ability to engage in the kind of activities you enjoy doing?” For each item, participants will be asked to respond to the question using a ten-point Likert scale. The survey is scored by adding up the ratings for the 22 items, with a higher score indicating a high incidence of fatigue. The goal of this 5 minute survey is to distinguish between fatigue and tiredness, when fatigue is defined as an unusual sense of excessive tiredness that is not usually relieved by either a good night’s sleep or by rest.

Perceived Stress Scale (Cohen & Williamson 1988)

This 10-item survey asks participants questions concerning their thoughts and feelings over the past month. For example, “In the last month, how often have you been upset because of something that happened unexpectedly?”. For each item, the participant will respond on a 4-point Likert scale indicating

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how often they felt those particular feelings with 0 being “Never” and 4 being “very often”. The five minute survey is a reliable measure of the degree to which situations in one’s life are appraised as stressful.

Cognitive Failures Questionnaire (Broadbent, Cooper, FitzGerald, & Parkes, 1982)

This 25-item self-report questionnaire asks participants to answer questions relating problems with everyday activities that related to having problems with attention, memory, perception, and motor functioning. For example, "Do you bump into people when you walk?" or "Do you find you forget appointments?". This 5-10 minute survey is designed to measure deficits in cognitive ability. Participants are asked how often they make mistakes on a 5-point Likert scale, from 0 (never) to 4 (very often). The survey is scored by adding up the ratings for the 25 items, with a higher score indicating a higher incidence of cognitive failures.

Eye Chart Vision Test

Participants will stand at a marked line (10 feet from the chart) and will identify letters listed on a standard Snellen Eye Chart. Researchers will make notes of errors.

Mental Speed Inspection Time Task I: Speeded Detection & Identification (Payne & Smith, 2013)

This computerized task requires participants to detect and identify letters that briefly appear on the computer screen between “#” signs. The presentation duration will be varied between 80 to 10 msec. There will be 5 blocks of fifteen trials, each with the target letter appearing for shorter and shorter periods of time. After each presentation trial participants will be asked to indicate whether they saw a target letter. They will next be asked to indicate which letter they saw, if any. This task will be scored on two levels for each presentation block: accuracy for detection and accuracy for identification.

Mental Speed Inspection Time Task II: Speeded Discrimination (Payne & Smith, 2013)

This brief computerized task requires participants to discriminate between two letters appearing on the computer screen for increasingly shorter periods of time between “#” signs. There will be 5 blocks of fifteen trials, each with the target letters appearing for shorter and shorter periods of time. Participants will then be asked to indicate whether the two letters on the screen were the same or different.

Debriefing form:

After completing the mental speed tasks, participants will be given a sheet with debriefing information. A verbal debriefing will be made available to the participants by the researcher present. Please see the attached debriefing form for further information. Participants that are volunteering for monetary compensation will also sign a form indicating that they were paid $10 for participation. For students seeking credit in psychology courses, credit will be assigned immediately after participation in the online system for credit recording.

A3. The anticipated product of this research project is: (check any that might apply)

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☒ Course paper ☐ Web page ☒ Public presentation
☐ Honors thesis ☐ Journal article ☒ other: book chapters

B. PI TRAINING

B1. All Kenyon College researchers involved with Human Subjects research must complete one of the prescribed, CITI online training courses. (all CITI completion records are automatically sent to the IRB Administrator) If you are confused about which course or learner group to sign up for, call the IRB administrator, pbx 5748 or email peelle@kenyon.edu
☒ I have successfully completed a CITI course.
☒ All other members of my research team have completed a CITI course.

B1.a. All guest researchers should contact the IRB administrator at 740.427.5748 or email peelle@kenyon.edu about completing and documenting completion of a human subjects' protections training course. List course taken: (email or fax a copy of the certificate of completion)

B2. If you are a student, please describe your training and preparation for this project
a. Training (e.g., a methods course, work on previous research projects)
Enter Text: students - are enrolled in Psych 450 - Advanced Research in Psychology (taught by Payne); all have taken courses in psych and neuroscience related to the topic of research.

b. Preparation (e.g., literature search, annotated bibliography, other)
Enter Text:
Beck, A.T., Steer, R.A., & Brown, G.K. (1996). Manual for the Beck Depression Inventory—II. San Antonio, Tex, Psychological Corporation.
Sheppard, L., & Vernon, P. (2008). Intelligence and speed of information-processing: A review of 50 years of research. Personality and Individual Differences, 44(3), 535-551.
Hart, R., & Kwentus, J.A. (1987). Psychomotor slowing and subcortical-type dysfunction in depression. Journal of Neurology, Neurosurgery, and Psychiatry. 50, 1263-1266.
Payne, T.W., & Sullivan, B. (2007). Affective disorders and cognitive failures: A comparison of seasonal and nonseasonal depression. American Journal of Psychiatry, 164(11), 1663-1667.
Payne, T.W., & Sullivan, Smith, G.. (2013). Inspection time for verbal stimuli: Letter detection, identification, and discrimination. Language Processing: New Research.
Tsourtos, G., Thompson, J.C., & Stough, M.C. (2002). Evidence of an early information processing speed deficit in unipolar major depression. Psychological Medicine, 32, 259–265.

C. PARTICIPANT POPULATION

C1. Type of participants (check all applicable):
☒ **Adults**
☐ **Minors** (under 18 yrs. old)
☒ **Kenyon Students:** (check all classes that apply)
☒ **1st yr.** ☒ **Soph.** ☒ **Jr.** ☒ **Sr.**
☐ **Mentally disturbed** (e.g., mentally ill, mentally retarded, emotionally

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disturbed, senile).

☐ **Special minority groups:** (specify:)

☐ **Other:** (specify:)

C2. Explain the inclusion/exclusion of particular groups (e.g. sex/gender, race, age religion, etc.)

Enter Text: This study requires a large and diverse sample, which would be more likely if community members and non-psychology students can particpate. We will first extend the opportunity to participate to psychology students in exchange for research credit in psych courses (4 credits). Then we would like to offer community members the opportunity to participate for $10 cash.

C3. Institutional Affiliation:

Please note: *Research involving off-campus institutions such as hospitals, schools, prisons, or other social service agencies requires approval from that institution's IRB or comparable research review board or agency official.* ***Documentation of approval from external agencies is required.***

☒ **No institutional affiliation outside of Kenyon College is involved**

☐ **Schools** (specify:)*

☐ **Hospitals** (specify:)*

☐ **Other** (specify:)*

*Please describe who you are working with (name, contact info) within the organization/agency. Describe any procedures or review process that you have been asked to follow. (Send copy of permission/approval along with this application.)

Enter Text:

C4. Estimated number of participants: 300

C5. How will the participants be solicited or contacted (e.g., ads, telephone, letter, announcements made in courses)?

Enter Text: group distributed campus emails; posting in the SONA system; flyers around campus and Gambier area

C6. Will any inducements (e.g., money, course credit, etc.) be offered to the Participants for their participation?

☒ **Yes** ☐ **No** (If yes, please explain the nature and amount of inducement)

Enter Text: Psychology students can take the study for course credits (4). All are eligible to participate in exchange for $10.

C7. How long will it take a subject to complete all study procedures? (15 min, 2 hours, etc.) Be specific.

Enter Text: 45 min.

D. RISKS

D1. Will the participants incur any psychological, social, physical, or legal risk? (This

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includes any psychological distress associated with experimental manipulations)
☒ Yes ☐ No (If yes, please explain the nature of the risk)
Enter Text: The primary risk identified in the procedure is that some of the survey items require participants to evaluate mood and stress levels, which may lead to negative thoughts, depending on an individual's personal experiences and state of being prior to the study. To reduce the possibility of causing stress, participants are informed they may skip any part of the questionnaires.

D2. Will the participants be deceived or misled in any way?
☐ Yes ☒ No (If yes, please explain the nature of the deception)
Enter Text:

D3. Will there be any probing (either verbal or in written form) for information that participants might consider to be personal or sensitive?
☒ Yes ☐ No (If yes, please explain the nature of the information)
Enter Text: mental and physical health diagnoses and medications

D4. Will participants be presented with materials, or be exposed to social interactions, that they might consider to be offensive, threatening, or degrading?
☐ Yes ☒ No (If yes, please explain the nature of the materials or social interactions)
Enter Text:

D5. If you answered "YES" to any of the questions in this section, please explain how you will minimize any risks.
Enter Text:

E. VOLUNTARY PARTICIPATION/INFORMED CONSENT

(**NOTE**: The questions in this section **do not apply** to **unobtrusive** observation **of public behavior.**)

E1. What steps will be taken to insure that participants' participation is voluntary? (Be sure to provide the script for information provided by research personnel or written materials to be given to the participant.)
Enter Text: The procedure will be clearly explained in the consent, which includes a statement regarding their rights to stop participation at any point. Please refer to attached form.

E2. What information about the study will be provided to potential participants? (If it is necessary to obtain participation without informing participants of the true nature of the study, include a script for information to be provided by research personnel or written material to be given to participants. If participants are to be debriefed after participating, include debriefing script or materials.)
Enter Text: Please see attached consent and debriefing forms.

E3. If research involves participant observation, how will the researcher's role be explained to other participants in observed activities?
Enter Text:

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E4. Will a written consent form be used? ☒ Yes ☐ No* (**If no, provide justification. Consult** Waiver or Alteration of Informed Consent **for more information.**)
Enter Text:
Federal law requires that, except in special circumstances, informed consent must be obtained. In brief, consent forms must include (1) a statement explaining the purpose, procedures, and duration of the project (2) a description of benefits to the participant and others (3) a statement describing the manner in which confidentiality will be maintained (4) a statement of any risks involved (5) contact information should questions arise in the future, and (6) a statement that participation is completely voluntary. **(Include a copy with your application)**

***If a consent form is not to be used**, the researcher must provide a justification, for instance in the case of web-based surveys where consent can be implied by participants accessing a web-site. In addition, researchers must provide participants with contact information for a person affiliated with the project and for the IRB committee (usually the IRB administrator) should questions arise.*

(Sample consent forms may be viewed and downloaded from the Kenyon College IRB forms web page. Be sure to provide a copy of your consent form with your application. The form you submit should be the exact form that you will use with your subjects. If you will not use a consent form, please provide a justification.)

E5. If participants are minors (under 18), will parents' or guardians' consent be obtained?
☐ **Yes** ☐ **No** ☒ **N/A** (If **NO**, please explain; if **YES**, include a copy with the application.)
The copy you send the IRB should be the exact copy you will use with parents/guardians.
Enter Text:

F. CONFIDENTIALITY

F1. Will data be collected that identifies individuals or that will be recorded in a way that allows observations to be linked to individuals?
☐ Yes ☒ No (If yes, please explain the nature of the information and the manner in which it will be disseminated)
Enter Text:

F2. Will any personal data be drawn from institutional files or archives (e.g., school files)?

☐ Yes ☒ No (If yes, explain the source and nature of such data.)
Enter Text:

F3. Who will have access to these data? (PI, FA, staff, public)
Enter Text: PI and student researchers; statistical results will be published

F4. What steps will be taken to insure confidentiality of personal data? (Be specific. Will research personnel (including students) be informed of their responsibilities in maintaining confidentiality?

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How will confidentiality be preserved as data are collected, stored, analyzed and published? When will data identifying individual participants be destroyed?)

Enter Text: No names will be collected (only for scheduling), and that list will only be accessible to PI and student researchers. The names are not in any way recorded with data from surveys or performance measures in this study.

G. **LEVEL OF REVIEW** (To be answered by applicant)

I believe this protocol should be reviewed as:

☐ **Exempt Reason: because**

☒ **Expedited Reason: because poses no more than minimal risk**

☐ **Full Board Reason: because**

☐ **SAVE NOW!**

☐ **Send any/all additional documents as email attachments**

- **The IRB Administrator will send you an email acknowledging receipt. If you do not receive the acknowledgement within 3 working days, contact the IRB Administrator, 5748 or peelle@kenyon.edu.**
- **Please remember to keep copies of all materials submitted to the IRB.**

If you need help call 5748 or email peelle@kenyon.edu

☐ Continue to next page (use tab)

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☐ Please make a hard copy of this page and collect the required signatures. Deliver to Bailey House.

G. ASSURANCE STATEMENT

I confirm that the procedures described above are accurate and will be followed in the course of the research project. I will notify the IRB of any changes to procedures and if unanticipated problems arise during the research process.

Signature of Researcher* Date

Please Print Name Project Title

***Students:** This form must be reviewed and signed below by your faculty supervisor as well as the Chair of your Department/Program
***Faculty:** This form must be reviewed and signed below by the Chair of your Department/Program.
***Administrators/Staff:** This form must be reviewed and signed below by the head of your administrative division.

Signature of Faculty Supervisor** Date

Print Name _____

****Faculty Supervisors are signing that they have performed the duties listed at** http://www.kenyon.edu/directories/offices-services/office-of-the-provost/conducting-research-at-kenyon/institutional-research-board-irb/duties-of-the-principal-investigator-pi-departmentprogram-chair-division-head-faculty-advisors/

Signature of Department/Program Chair or Administrative Division Head*** Date

Print Name _____

*****Department/Program Chairs and Administrative Division Heads:** your signature indicates that you have reviewed this Proposal for Research Involving Human Subjects and have found the application complete and accurate. After signing, please check the box below that best describes the level of IRB review that this proposal should undergo.

☐ This proposal should be considered exempt from further review.
☒ This proposal should be considered for an expedited review.
☐ This proposal should be given a full review.

PI's should keep copies of all materials submitted with this application.