

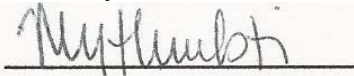
August 2, 2013

Dear IRB Administrator,

Please accept the attached exempt IRB application for a project entitled "Baseline and Stress," on behalf of myself and Dr. Kristen W. Springer. Although we completed an expedited IRB application, a representative from the Institutional Review Board suggested we submit this project as exempt under category 2.

Thank you very much for your time and consideration.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mary S. Himmelstein", is written over a light-colored rectangular background.

Mary S Himmelstein,
Rutgers University

Rutgers, The State University of New Jersey

REQUEST FOR EXEMPT REVIEW

Mary S Himmelstein, MA
Graduate Student
Social/ Health Psychology

Kristen W. Springer, PhD
Associate Professor
Sociology & IHHCPAR

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APPLICATION FORM TO REQUEST FULL / EXPEDITED REVIEW OF A RESEARCH PROTOCOL INVOLVING
HUMAN SUBJECTS

This form is to be used for requesting Expedited or Full IRB review of any new project. IRB approval is required before any research involving human subjects may be initiated. Full details must be given and all necessary documentation submitted. If you are unable to provide certain information at the time of submission, please indicate this in a cover letter. It is vital that all information be submitted at the time of review in order to ensure appropriate review and timely processing of the protocol. Please read the attached instructions before completing this form. *Handwritten and/or incomplete forms will be returned to the investigator(s) without review.*

IRB REVIEW TYPE REQUESTED: (specify only one of the following)

☐ Full IRB panel review

Refer to "Categories of IRB Review" in the instructions.

☒ Expedited IRB panel review - specify category(s): 4, 7☐ De Novo Application (i.e. Rewrite of a previously approved protocol), **provide the protocol number:** _____

For exemptions submit instead the Request for Exemption from IRB Review form. If unsure after reviewing the "Categories of IRB Review" for Exemptions, you may fill out this form or call the IRB office for assistance.

TITLE OF PROJECT: Baseline & Stress

Projected Study Dates: Begin Recruitment: 09/01/2013

End Analysis: 08/31/2015

PRINCIPAL INVESTIGATOR (type name here): Mary S. Himmelstein

Please note that undergraduate student investigators may not be named as the principal investigator on protocols and must instead name their faculty advisor. Graduate students may serve as a Principal Investigator, with their advisor serving as CO-Principal Investigator.

CHECK ONE:

Faculty _____ Title: _____

Dr. _____

Staff _____ Title: _____

Mr. _____

Graduate Student Ph.D. ☒ _____

Ms. _____

Graduate Student Masters _____

Department/Unit: (DO NOT ABBREVIATE): Psychology/ School of Arts & Sciences

Mailing Address: Tillet Hall 101, Livingston Campus, 53 Ave E, Piscataway, NJ 08854

Cell Phone (optional): 718 730 0501

Office Phone: 848-445-2059

Fax: 732-445-0036

E-Mail: msh127@rci.rutgers.edu

I certify that the statements made in this request are accurate and complete, and that I will conduct this study in accordance with the recommendations of the Institutional Review Board for the Protection of Human Subjects in Research (IRB). I will not begin work on this project until I receive a Notice of Approval from the IRB. I understand that I am responsible for reporting any serious adverse events or emergent problems to the IRB, for obtaining IRB approval before implementing modifications, and for requesting continuing review and approval. I have read the Federal Wide Assurance (FWA), which is available at < <http://orsp.rutgers.edu/Human.asp> >, and understand my responsibilities as a Principal Investigator. If work will be done by an undergraduate student, I will properly mentor them.

Signature of Principal Investigator: Date 8/02/2013Name of Undergraduate Investigator: N/AE-Mail: N/ASignature of Student: N/A Date: N/AIndicate the date that the **undergraduate** successfully completed the Human Subjects Certification Program:If this project is being performed as part of an honors program, please check here ☐ and specify the program: N/A

In lay language, briefly state the hypothesis, objectives, or purpose of the proposed research, in the space provided below. This must be no more than 2 sentences, understandable by a person not familiar with your research. Attach a complete research protocol, marked 'Attachment 1'.

Physiological studies involving cardiovascular research often include a baseline measure aimed at assessing resting potential (i.e. physical relaxation) in blood pressure, heart rate, and respiration; despite pervasive use, no standard baseline measure exists. This study aims to compare different baseline measures on two outcomes (physiological and cognitive) to determine which baseline measure is superior at relaxing participants in a lab setting.

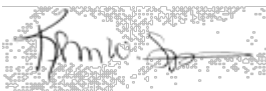
Faculty Advisor as Co-Principal Investigator for Graduate Student Principal Investigator:

Faculty Advisor must serve as the Co-Principal Investigator if their graduate student serves as the Principal Investigator:

As faculty advisor for the graduate student named as Principal Investigator for the this protocol, I certify that I am familiar with Rutgers University policies and federal regulations as they apply to research involving human subjects. I have advised and/or assisted the student in the preparation of this application and have reviewed it for completeness and accuracy. I endorse the study and certify that it fulfills all the guidelines and requirements for IRB review. I agree to serve as the Co-Principal Investigator for this project.

Name: (printed) Kristen Springer

Signature:



Date: 08/02/2013

Title: Associate Professor

Department: Sociology

Office Phone: 848-932-7516

Cell Phone (optional): 732-425-0017

Home Phone (optional): N/A

Fax: 732-932-1253

E-Mail:

Human Subjects Certification Completion Date: 8/17/2007

Graduate Program Director:

The graduate program director will be contacted if problems arise from the protocol. Provide program director's information below:

Name: (printed) David Wilder

Title: Professor I

Department: Psychology

Office Phone: (848) 445-1991

Cell Phone (optional):

Home Phone (optional): N/A

Fax: N/A

E-Mail: dawilder@rci.rutgers.edu

Complete this section if someone in addition to the PI is designated to receive and respond to correspondence.

CONTACT PERSON: Brandon Kramer

Title: HEART Lab Manager

Department/Unit: Sociology/ School of Arts and Sciences

Mailing Address: 26 Nichol Avenue, New Brunswick, NJ 08901

Phone: 563-543-4205

Fax: 732-932-1253

E-Mail: bkramer@sociology.rutgers.edu

REQUESTS RECEIVED WITHOUT THE APPROPRIATE SIGNATURE(S) WILL NOT RECEIVE REVIEW.

FUNDING STATUS:**1. Funded by:** (Agency or Organization):

Not Funded

2. Funding proposal submitted to: (Agency or Organization):

N/A

If #1 and/or #2 above is applicable, please complete and sign the following:

Anticipated Start Date: 09/01/2013**Projected End Date:** 08/31/2015

I certify that the grant application or contract listed above describes no research involving human subjects other than that which is included in this protocol.

Name (printed):**Signature:**

3. Funding not applied for at this time (*check here*): ☒ X**EDUCATION**

Effective January 1, 2001, successful completion of the web-based Human Subjects Certification Program by the principal investigator and all other key personnel will be required prior to the Notice of Approval being issued for a protocol.

Indicate the date that the **Principal Investigator** successfully completed the Human Subjects Certification Program:

Date of Completion: 06/13/2011

List below **other key personnel including undergraduate investigators**, who are responsible for the design OR conduct of the study. Attach additional sheets if necessary, marked 'Attachment 2'.

Name: Brandon Kramer Title: HEART Lab Manager Department: Sociology Mailing Address: Sociology Department 26 Nichol Avenue New Brunswick, NJ 08901	Phone: 563-543-4205 Fax: 732-932-1253 Email: bkramer@sociology.rutgers.edu Date of successful completion of Human Subjects Certification Program: 9/16/2012
Name: Patrick Barnwell Title: Research Consultant Department: Institute for Health, Healthcare Policy and Aging Research Mailing Address: 112 Paterson Street, New Brunswick, NJ 08901	Phone: 848-932-5807 Fax: 732-932-1253 Email: pbarnwel2@aol.com Date of successful completion of Human Subjects Certification Program: 08/21/08
Name: Melissa Butler Title: Research Assistant Department: Institute for Health, Healthcare Policy and Aging Research Mailing Address: 112 Paterson Street, New Brunswick, NJ 08901	Phone: 908-489-6663 Fax: 732-932-1253 Email: mb1095@scarletmail.rutgers.edu Date of successful completion of Human Subjects Certification Program: 6/30/2013
Name: Sindhu Kilakkathi Title: Research Assistant Department: Institute for Health, Healthcare Policy and Aging Research Mailing Address: 112 Paterson Street, New Brunswick, NJ 08901	Phone: 908-723-5446 Fax: 732-932-1253 Email: sindhu.kilakkathi@gmail.com Date of successful completion of Human Subjects Certification Program: 05/05/2013

RATIONALE FOR EXPEDITED REVIEW: (if applicable)

If you are requesting EXPEDITED review, please provide your rationale here:

- 4: Collection of data through noninvasive procedures routinely employed in clinical practice
- 7: Research on individual or group characteristics or behavior

This study involves use of surveys which pose minimal risk to the subject and from which the subject cannot be identified. Although we collect the participants' name on the consent forms, consent forms are not, in any way, tied to participants' data. Noninvasive clinical procedures will be used to measure heart rate, blood pressure and respiration (category 4). Participants will complete self-report questionnaires that include questions about the study procedures, demographics, stress, preferences (e.g. enjoys abstract thought tasks), psychological functioning (e.g. depression, anxiety, rumination), personality traits, current illness, current mood and daily habits (e.g. caffeine consumption, sleep and meditation: category 7).

PROTOCOL DESCRIPTION:

1. THE HUMAN SUBJECTS INVOLVED IN THIS RESEARCH:

a) Who are the subjects?

Two hundred undergraduate, males and females at Rutgers University will be recruited through an introductory psychology participant pool.

b) How many subjects will be involved in the project?

200

c) Specify your plans for including women and minorities, if appropriate.

Women and minorities have an equal chance to sign up for participation.

d) List all inclusion and exclusion criteria.

Participants must be between the ages of 18-25 and currently enrolled in an introductory psychology course. Participants who self-report any history of heart problems or blood pressure problems (e.g. high blood pressure, low blood pressure) will be excluded. Participants with high blood pressure values (systolic average <160 and/ or diastolic <105) during the visit will be excluded. Any participant who reports having significant psychiatric conditions, active drug abuse, significant known cardiovascular disease, or reports taking medications for heart related conditions (e.g. blood thinners), blood pressure regulation (e.g. anti-hypertensive) or drugs known to affect the cardiovascular system (e.g. tranquilizers, stimulants) will also be excluded. In addition, participants who are likely to experience severe bruising because of a medical condition or the use of blood thinning agent will be excluded. Finally, participants who report they are pregnant will be excluded.

We include questions on exclusion criteria on the consent form (yes/ no/ decline). If participants meet any of the exclusionary criteria their consent forms (and therefore any record of their name) will be shredded and they will be compensated for their time in the form of RPU's (see 4a).

e) Do your subjects include any of the following:

- | | |
|--|--|
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Pregnant Women or Human Fetuses or Neonates? <i>Indicate only if specifically needed for the research.</i> |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Children and Minors ages seven through seventeen? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Infants or Children younger than seven years of age? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Cognitively Impaired Persons? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Inmates/Prisoners? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Elderly/Aged Persons? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> X <input type="checkbox"/> No | Non-English Speaking Persons? |

NOTE: These subjects, by virtue of their age or status, may not be competent or free to give their own consent and may be particularly vulnerable to coercion and undue influence. Investigators must incorporate additional safeguards into the research plan and document fully the informed consent of these individuals and/or that of their legal representatives. Guidelines for inclusion of vulnerable populations are available from the IRB office via the web site: <http://orsp.rutgers.edu/Human.asp>.

f) Are your subjects students?

☐X Yes ☐No If YES, name the institution(s) in which they are enrolled: **Rutgers University**

g) Are you including students who are enrolled in your own class or in a "subject pool" at Rutgers?

☐X Yes ☐No Read and sign Appendix A, entitled "Use of Rutgers Students as Experimental Subjects in Research" **regardless of your response.**

h) Are there prospective subjects who, if selected for this project, would be especially vulnerable to risk because of the procedures you will be using?

☐Yes ☒X No If YES, describe the process you will use to screen such subjects:

The exclusion criteria for this study are specifically designed to weed out participants who might be vulnerable to risk related to measuring cardiovascular activity.

2. RECRUITMENT:

a) Specify how you will gain access to, recruit, and select your subjects.

Participants will be recruited using the psychology subject pool. Through the subject pool website (maintained by the psychology department for all students taking general psychology), students choose an available appointment time to take any study in person. Students receive an automatic reminder email about their appointment and are given the opportunity to cancel the appointment at any point prior to 24 hours before the scheduled appointment. Participants come to the appointment. The informed consent is explained to the student and the student either stays to complete the study or opts out of the study without penalty.

b) Are you advertising or posting a notice for subjects/volunteers?

☐Yes ☒X No If YES, submit a copy of the advertisement or notice, marked 'Attachment 3'.

c) Will the subjects be recruited from your place of employment?

☐X Yes ☐No If YES, explain how this research relates to your job role and provide any other information pertinent to your relationship with the subjects (e.g., how will you ensure against the possibility of coercion?):

Participants in the subject pool are enrolled in introductory psychology courses at Rutgers where the PI is a graduate student, teaching assistant and summer instructor. The PI is not involved in introductory psychology courses in any capacity. Thus it is highly unlikely any students enrolled in the researcher's courses will be eligible to participate in this study. The researcher will not attempt to identify any student directly through participation in this study.

3. DURATION OF PARTICIPATION:

a) Indicate the length of each session (e.g. minutes, hours) and the number of sessions in which each subject will participate:

This study will be conducted in one session lasting approximately one hour.

b) What is the total duration of an individual subject's involvement (e.g. days, weeks, months)?

One hour

4. COST/PAYMENT:

a) Are you paying your subjects?

☐X Yes ☐No If YES, indicate the amount of payment and describe if (and how) you will pro-rate the payments to subjects who withdraw before they complete their participation:

Participants receive research credits based on the amount of time they spend participating in the study. Participants receive 1 research credits for every half hour of in person participation in research studies. For this study participants will receive 2 research credits total. If participants decline to participate or withdraw consent they will be compensated for the time they spent participating according to the rule for assigning credit stated above (e.g. 1 credit per half hour or 0.5 credits for 15 minutes). Participants may opt to complete written assignments as an alternative to participating in research; these are handed in to individual professors and do not involve the principal investigator. If the researcher terminates the study for any reason (other than the exclusion criteria listed in 1d), the participant will be given full credit.

- b) **Will participation in the study involve any cost to the subject?**
___Yes___X_No If YES, indicate the anticipated costs to the subject.

5. **INFORMED CONSENT:**

- a) **Does your protocol involve the use of an informed consent form?**
___X___Yes___No If YES, enclose a copy of the form, marked 'Attachment 4'. Informed consent must be obtained from the subjects and/or, in the case of minors under the age of 18, the parent or legal guardian. Review the instructions regarding the use of written vs. oral consent. The document must include all of the relevant elements mentioned in the instructions.
- b) **Does your protocol involve the use of assent or oral consent?**
___Yes___X___No If YES, provide an approximate script that will be communicated to the subjects, or the assent statement, marked 'Attachment 5'. Assent is agreement by an individual not competent to give legally valid informed consent to participate in research (e.g. A child or cognitively impaired person). See the instructions for the use of assent and oral consent.
- c) **If you do not intend to use a consent form, please provide your rationale here:**
N/A

6. **DOMESTIC / INTERNATIONAL SITE(S):**

- a) **Domestic Sites: Specify the site(s) within the United States where you will perform your study (e.g. on Rutgers campus, in local schools, hospital, prison).**
Rutgers University, College Avenue Campus, Institute for Health, Healthcare Policy and Aging, 112 Paterson Street, New Brunswick, NJ.
- b) **International Sites: Will any of the research under this protocol be conducted outside of the United States?**
___Yes___X___No If YES, Complete Appendix C found at
<http://orsp.rutgers.edu/Humans/internationalproceduresdoc.asp>
- c) **Is one or more of the sites a non-Rutgers institution?**
___Yes___X___No If YES, list the institutions and provide letters from appropriate institutional official(s) (e.g. school principal, director of institution, IRB), marked 'Attachment 6'.

7. **THE RESEARCH PROCEDURES:**

- a) **Describe in lay language exactly what you will be doing to, or with, your subjects:**

Eligible participants will sign up for an appointment to complete the study using the research pool website. Upon arrival to the lab, participants will be given an opportunity to use the bathroom before the experimental session begins. The researcher will then give the participant an informed consent form and the researcher will explain the study to that participant. The experimenter will show participants the tools that will be used to measure each response (electrodes for heart rate, finger & arm cuff for blood pressure, a waist belt for respiration). Participants will be told the study has three parts. The first part of the study involves a 10 minute period to measure resting levels of heart rate, blood pressure and respiration. They will be told the second part of the study involves completing a test of cognitive ability that may induce stress. Finally, the third part of the study will involve completing questionnaires that include questions about the study procedures, demographics, stress, preferences (e.g. enjoys abstract thought tasks), psychological functioning (e.g. depression, anxiety, rumination), personality traits, current illness, current mood and daily habits (e.g. caffeine consumption, sleep and meditation). After describing the procedure, the researcher will go over the informed consent with the participant to ensure they understand the form. The informed consent includes a brief set of "yes/ no/ decline to answer" questions to address the exclusionary criteria stated in 1d. Participants will be asked to indicate whether or not they meet any exclusionary criteria which would preclude them from participating. If participants meet exclusionary criteria they will be excluded from the study and compensated for their time in the form of RPU credits (see 4a).

If consent is obtained, participants will be connected to the blood pressure, heart rate and respiration equipment following which they will answer one question about their current stress level. Next, they will complete a randomly assigned relaxing task, which attempts to bring their blood pressure, respiration, and heart rate down to a relaxed, normal state. Widely used examples of relaxing baseline tasks include: resting

quietly, counting colored squares, reading neutral magazines, listening to classical music, watching a neutral video, watching a slideshow of bland images (e.g. broom or coat hook), or answering a set of questionnaires. During this baseline task, blood pressure will be checked to ensure participants are excluded if they are not below the maximum acceptable blood pressure level (see 1d).

After the baseline procedure participants will again answer a single question about their current stress level then complete a well-established test of executive functioning called the Stroop task. The Stroop task measures reaction time in identifying the color of a written word (e.g. the word blue is written in red ink, participants must respond with red) or reading the name of a color written in a different color (e.g. the word yellow is written in blue ink, participants must respond with yellow).

Following the Stroop task participants will respond to a short set of questionnaires assessing attitudes about the study procedures, demographics, stress, preferences (e.g. enjoys abstract thought tasks), psychological functioning (e.g. depression, anxiety, rumination), personality traits, current illness, current mood and daily habits (e.g. caffeine consumption, sleep and meditation). When the questionnaires are completed participants will be disconnected from heart rate, blood pressure and respiration equipment and dismissed. Research credits will be assigned manually at least once every two weeks.

b) Will you be carrying out procedures or asking questions that might disturb your subjects emotionally or produce stress or anxiety?

☐X Yes ☐No If YES, describe your plans and criteria for counseling such subjects:

The procedures involved in this study are designed to relax participants. However, the Stroop task may induce minor stress in participants. We will also ask questions about participants' stress levels, depression and anxiety, although participants will be informed of their right to decline any question they feel is too personal. The researcher will also verbally inform participants of their right to withdraw from the experiment at any time and the right to withdrawal at anytime is also stated prominently on the consent form. The consent form will also include contact information for the Rutgers Counseling Services and mental health talk lines in the case they continue to experience stress after the task. In addition, contact information for the principal investigator will be included on the consent form.

c) Are you using a questionnaire, survey, and/or an interview as part of your procedure?

☐X Yes ☐No If YES, submit a copy of the questionnaire(s) and/or interview questions, marked 'Attachment 7'.

d) Are you using focus group discussions as a part of your procedure?

☐Yes ☒X No If YES, submit a copy of the focus group guide, marked 'Attachment 8'.

e) Does your study involve deception of your subjects?

☐Yes ☒X No If YES, describe the deception, justify its need, and describe the procedure you will use to debrief your subjects. Submit a copy of the debriefing statement, marked 'Attachment 9', which should include a statement of your willingness to allow subjects to withdraw from your study after debriefing and to remove from your files all records of their involvement.

f) Will this study involve the use of existing data, documents, records, pathological specimens, or diagnostic specimens?

☐Yes ☒X No If YES, include authorization to access the data if not publicly available, marked 'Attachment 10'.

8. DATA COLLECTION:

a) Are you obtaining from your subjects information about their private behavior, economic status, sexual preferences, religious beliefs, or other matters which, if made public, might impair their self-esteem or reputation, or could reasonably place the subjects at risk of criminal or civil liability or be damaging to their financial standing or employability?

☐X Yes ☐No If YES, please explain:

We ask participants a number of questions designed to assess their current stress level, psychological functioning and attitudes and beliefs. Participants have the option to decline to answer any question in the study. Data associated with each participant is only identified through a participant ID. The researcher has no way to link the data collected to any specific individual taking the study.

- b) **Indicate below the types of demographic data that will be recorded.** (Check all that apply.)
- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Names of people | <input checked="" type="checkbox"/> Ethnicity | <input type="checkbox"/> Names of employers |
| <input type="checkbox"/> Addresses | <input checked="" type="checkbox"/> Marital status | <input type="checkbox"/> Types of employers |
| <input type="checkbox"/> Phone numbers | <input checked="" type="checkbox"/> Income | <input type="checkbox"/> Other unique information |
| <input checked="" type="checkbox"/> Age | <input type="checkbox"/> Social security number | (Specify) _____ |
| <input checked="" type="checkbox"/> Gender | <input type="checkbox"/> Job title | |

c) **Do you plan to use a code to link a subject to his/her response?**

☐ Yes ☒ No If YES, indicate where and by whom the code is held.

Participant's identities are not linked to their participant code in any way the principal investigator or any study researcher is able to access. We are collecting names on the participant's consent form, but the consent forms will not include the participant code and will be kept in locked file cabinet in a locked office separate from the participants' data. We will not ask participants for any additional identifiers like address or phone number. Participants are only identified via their subject pool ID which is not linked with their identity.

9. **DATA STORAGE/DISPOSITION:**

a) **Describe how you will keep your data secure and maintain confidentiality during the course of your project:**

Hard copies of forms will be maintained in locked file cabinets in a locked office. Only members of the research team directly involved in data collection will have access to these forms. Forms containing responses to questions and laboratory data will be kept separately from the informed consent form.

Data will be coded using a blind identifier that is not linked with subjects' name or consent forms. The use of an identifier solely serves to keep the subjects' data together, not to identify any individual subject. Confidentiality will be ensured because the participant's identity is in no way associated with the participant's data.

b) **Describe how you will ultimately dispose of your data** (notes, drafts, lists of subjects, photographic records, tapes, computer disks, etc.) **after you have completed your research** (e.g. shredding, burning) (please note that all research records must be maintained for **at least three years after the completion of the research**, including consent forms, flyers, etc.). **If you do not plan to destroy research data, please provide a justification for maintaining the data for an indefinite period of time and how you will ensure confidentiality:**

All records (electronic and paper) from people who enrolled in the study will be maintained for a period of ten years from the completion of study data collection. After ten years, any individual level data (i.e. questionnaires) will be shredded or erased. A research database containing only a unique non-identifiable ID number will be kept indefinitely for continuing data analyses.

10. **RISK/BENEFIT:**

In three or four sentences, summarize the risk/benefit ratio of the proposed research, with regard to the human subjects, the risks to them, and the potential benefits to knowledge or society:

There is minimal risk during this study, while there is a greater potential for benefits in terms of understanding how to achieve the most relaxed baseline state for psychophysiological research. However, participants are unlikely to derive direct individual benefit from participation in this study.

One possible risk is discomfort with the blood pressure/heart rate monitoring equipment. The blood pressure/heart rate monitor is a well-established, commonly used, non-invasive device and only involves a blood pressure cuff and finger tip cuffs on two fingers. However, just to be extra cautious, participants who report bruising easily or who are on blood thinners will be excluded from participation. Another potential risk is the possibility of minor skin irritation from heart rate monitoring electrode sticker removal (similar to removing a Band-Aid).

11. **INTERNAL REVIEW:**

Does your department, unit, or school have an ethics or research review committee?

☐ Yes ☒ No If YES, state the name of the committee and the date it reviewed and approved your project:

12. **COLLABORATION:**

Does this research project involve the IRB approval of one or more participating institutions or organizations other than that of Rutgers?

___Yes_X___No

If YES, list the institutions and submit copies of the related IRB approval notices, marked 'Attachment 11'.

13. **ADDITIONAL INFORMATION (OPTIONAL)**

- If you are unable to provide certain information at the time of submission, **please indicate this in a cover letter**. It is vital that all information be submitted at the time of review in order to ensure appropriate review and timely processing of the protocol.
- All subjects must be informed by the investigator that they are free to terminate their participation in the study at any time without penalty.
- **Be sure to completely fill out and include the checklist, Appendix B, with your application. All entries should be marked with X (= yes) or NA (= no).**
- Review the application before submission to verify that all required signatures are included. Requests received without the appropriate signature(s) **will be returned without review**.
- Submit the complete application packet by the 12th of the month for review consideration at the upcoming IRB meeting. **Do not submit instructions**.
- All relevant attachments should be marked and attached to the protocol form in the following order:

Appendix A	Use of Rutgers Students as Experimental Subjects in Research
Appendix B	Investigator and Reviewer Checklist
Appendix C	Full/Expedited Studies Involving International Research
Attachment 1	Research Protocol (e.g. grant application, dissertation proposal)
Attachment 2	Additional Key Personnel Information
Attachment 3	Advertisement or Recruitment Notice
Attachment 4	Consent Form(s)
Attachment 5	Assent or Script for Oral Consent
Attachment 6	Authorization from Non-Rutgers Research Sites
Attachment 7	Questionnaire(s), Survey(s), Interview Questions
Attachment 8	Focus Group Guide
Attachment 9	Debriefing Statement
Attachment 10	Authorization to Use Data
Attachment 11	IRB Approval Notices from Participating Institutions

**RUTGERS - THE STATE UNIVERSITY OF NEW JERSEY
USE OF RUTGERS STUDENTS AS EXPERIMENTAL SUBJECTS IN RESEARCH**

The procedures outlined in this statement are designed to reduce the element of coercion or influence in any use of Rutgers students as subjects the research projects conducted by faculty or instructional staff. These procedures DO NOT apply to students studying research techniques in courses that require them to perform experiments; rather, they apply to experimentation that uses students not as investigators, but as subjects.

The ethical principles of professional societies insist that all consent to participate in research must be voluntary, and that all potential subjects must be treated as autonomous agents, with the right to choose or not to choose to take part in experiments. Federal regulations (e.g., 45 CFR 46.116) are explicit: "An investigator shall seek such consent only under circumstances that provide the prospective subject or the representative sufficient opportunity to consider whether or not to participate and that minimize the possibility of coercion or undue influence." By action of the Rutgers Board of Governors, all research in this university that involves human subjects is required to conform with federal regulations.

Consequently, individual faculty members and instructional staff, students, and departments that use students as experimental subjects, or that maintain "subject pools" of students from which investigators may draw research participants, are asked to adopt procedures that meet the following conditions:

1. Before they enroll in a course, students must be informed of the possibility that they may be asked to serve as research subjects in experiments under direction of the faculty.
2. If there is a course requirement that students serve as research subjects in such experiments, then alternative ways must be provided for students to meet this requirement. During the first week of classes, students should receive a written description of the various ways of meeting the requirement.
3. Each department that regularly requires students to act as research subjects should establish a committee composed of faculty and students to review the research projects involved. This committee should be responsible for hearing and acting on any student complaints in connection with the research-participation requirement.
4. All members of the faculty who invite students to act as subjects in their research must be acquainted with the ethical standards that govern such activities, such as those promulgated by the American Psychological Association or other discipline-related professional organization, or those in the so-called Belmont Report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. A copy of the latter report is obtainable from ORSP. (Website: <<http://orsp.rutgers.edu/>>)

Please check one box below, sign your name, and include this form with your application.

☒ [X] I have read the above statement and agree to follow the procedures recommended.

OR

☐ [] I will not be using Rutgers students as subjects in this protocol.

Name (Printed):

Signature:  _____

Date: 08/02/2013

APPENDIX B

Rutgers, The State University of New Jersey
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS IN RESEARCH
INVESTIGATOR CHECKLIST

This checklist is to be completed by the PI and submitted with the IRB application.

Principal Investigator: Mary S Himmelstein **Date:** _08/13/2013_

Type of IRB review requested: __full panel __expedited __X__exempt

APPLICATION: (use X if "yes" and NA if "not applicable")

- ☒ Justification provided for expedited review or exemption, if requested
- ☒ Application typed or computer-generated, not hand written
- ☒ Summary in non-technical terms (2 sentence maximum)
- ☒ Risks specified
- ☒ Benefits specified
- ☒ Informed Consent Form appended
- ☒ All instruments appended (e.g. questionnaires, standardized tests, interview schedules)
- ☒ Form: "Use of Rutgers Students as Experimental Subjects..." signed, appended
- N/A Advertisment for recruitment of participants appended, if relevant
- ☒ Performance site(s) specified
- ☒ Principal Investigator's signature on application
- ☒ Names of all investigators specified
- ☒ Study dates specified (beginning, ending)
- N/A Funding source(s), if any, specified
- N/A Approval letter(s) from ALL relevant off-campus site(s) (e.g. school principal, other IRB's) appended
- ☒ FINAL disposal of data (and time) specified
- ☒ If applicant is a STUDENT, advisor signature on page 2
- ☒ Inclusion/exclusion criteria specified
- ☒ Inclusion of women and/or minorities addressed in text
- ☒ Appendix C: FULL / EXPEDITED Studies Involving International Research, attached.
- N/A Appendix D: EXEMPT Studies Involving International Research, attached.

*Investigator: check **ONLY ONE** of the following:*

Participants' identity will be: ☒ anonymous __confidential __neither

INFORMED CONSENT FORM *(must be written in non-technical terms for participants)*

- ☒ Study description and goals
- ☒ Clear description of what will be done to the participant (e.g. withdraw __ amount of blood)
- ☒ Clear description of what will be required of participant (e.g. physical exertion)
- ☒ Risks (e.g. side effects, toxicities, radiation) to participant specified
- ☒ Benefits to participant specified
- ☒ Duration of participation (e.g. minutes, days, months, number of sessions, etc.)
- ☒ Provision and procedure for accessing counseling specified, if participants may be affected adversely
- N/A Alternatives to participation, if applicable
- ☒ Payment to participant specified, including reimbursement for expenses, if applicable
- ☒ Freedom to withdraw from study at any time without penalty: STATED PROMINENTLY
- ☒ Pro-rating specified, if participant withdraws early from study
- N/A Costs to participant specified (i.e. those not reimbursed, if any)
- ☒ Conditions under which INVESTIGATOR may terminate subject's participation, if relevant
- ☒ Number of participants in overall study
- ☒ Line for participant to initial EACH page of informed consent form
- ☒ Rutgers Disclaimer / Coverage for adverse effects specified
- ☒ Names, phone numbers, addresses of contact persons (investigators AND IRB)

☒ Signature lines for participant AND investigator; witness signature line if appropriate
☒ Video, audio, and/or photographic consent, if applicable
N/A Consent for the use of subjects' genetic material, if applicable
N/A Translation into appropriate foreign language, if applicable
N/A Pregnancy waiver, if applicable
☒ Specification of any groups to be excluded from the study (e.g. women, minorities)
☒ Specification of whether research results (individual, group) will be provided to participant
☒ Explicit assurance of participant's confidentiality/anonymity in investigator's reports of findings
☒ Consistent use of "I / you" in the text

****NOTE THAT YOU MUST SUBMIT **ONE** ORIGINAL AND **TWO** COPIES OF THE APPLICATION AND ALL RELEVANT MATERIALS****

Investigator Comments (optional):

Baseline & Stress

Purpose/ Objective

First, we want to determine the best “resting state” method to ensure that participants are at their baseline levels of heart rate, respiratory activity, and blood pressure before starting psychophysiological experiments. Almost all research that collects physiological data underscores the critical importance of making sure that participants are relaxed enough to obtain “resting state” measures before proceeding with the study. However, there has yet to be a systematic investigation of which baseline(s) are most effective. Therefore, we will randomly assign participants to a 10 minute standard baseline task (e.g., reading neutral magazines, watching a neutral movie, counting colored squares, answering questionnaires, resting quietly, viewing neutral pictures.) to see how low their blood pressure, respiratory activity, and heart rate are after the baseline task. The results of this aspect of the study will help validate experimental baseline methods in physiological research. We also include a well-established task (the Stroop task) following the baseline time to measure small increases in physiological arousal (i.e. stress). This will allow us to make our test of baselines as close to other studies of stress employing baseline procedures as possible. If we did not include a stress task our measurement of resting potential would be invalid because no anticipatory arousal associated with an upcoming stress task would be present in participants.

Exclusion Criteria:

Participants must be between the ages of 18-25 and currently enrolled in an introductory psychology course. Participants who self-report any history of heart problems or blood pressure problems (e.g. high blood pressure, low blood pressure) will be excluded. Participants with high blood pressure values (systolic average <160 and/ or diastolic <105) during the visit will be excluded. Any participant who reports having significant psychiatric conditions, active drug abuse, significant known cardiovascular disease, or reports taking medications for heart related conditions (e.g. blood thinners), blood pressure regulation (e.g. anti-hypertensive) or drugs known to affect the cardiovascular system (e.g. tranquilizers, stimulants) will also be excluded. In addition, participants who are likely to experience severe bruising because of a medical condition or the use of blood thinning agent will be excluded. Finally, pregnant participants will be excluded.

Data Collection Procedure:

Eligible participants will sign up for an appointment to complete the study using the research pool website. Upon arrival to the lab, participants will be given an opportunity to use the bathroom before the experimental session begins. The researcher will then give the participant an informed consent and the researcher will explain the study to each participant. The experimenter will show participants the tools that will be used to measure each response (electrodes for heart rate, finger & arm cuff for blood pressure, a waist belt for respiration). Participants will be told the study has three parts. The first part of the study involves a 10-minute period in which heart rate, blood pressure and respiration will be recorded. Next, they will be told the second part of the study involves completing a test of cognitive ability under stress. We must include the stress measure in order for our baseline measures to be valid and comparable to other studies involving baselines. Studies on stress involve a baseline in order to give participants' equal time to reach a restful state regardless of how they come in (e.g. in an already relaxed state after meditating or in a stressed state after a midterm). A baseline is meant to bring all participants to the same or similar levels of relaxation. Telling participants they will complete a stress task, however, causes them to experience anticipatory stress even during their baseline task. We must include a stress task to make our study of baselines as close to other studies of stress response as possible. Finally, the third part of the study will involve completing questionnaires that include questions about the study procedures, demographics, stress, preferences (e.g. enjoys abstract thought tasks), psychological functioning (e.g. depression, anxiety, rumination), personality traits, current illness, current mood and daily habits (e.g. caffeine consumption, sleep and meditation. After describing the procedure the researcher will go over the informed consent with the participant to ensure they understand the form. The informed consent includes a brief set of “yes/ no/ decline to answer” questions to address the exclusionary criteria stated in 1d. Participants will be asked to indicate whether or not they meet any exclusionary criteria which would preclude them from participating. If participants meet exclusionary criteria they will be excluded from the study and compensated for their time in the form of RPU credits (see 4a).

If consent is obtained participants will be connected to the blood pressure, heart rate and respiration equipment following which they will answer one question about their current stress level. Next, they will complete a well-established, common, randomly assigned 10-minute relaxing task, which attempts to bring

their blood pressure, respiration, and heart rate down to a relaxed, normal state. Examples of relaxing tasks include: resting quietly, counting colored squares, reading neutral magazines, listening to classical music, watching a neutral video, watching a slideshow of bland images (e.g. broom or coat hook) or answering a set of questionnaires. During this baseline period, blood pressure will be checked to ensure participants are excluded if they are not below the maximum acceptable blood pressure level (see 1d). One of the baseline conditions involves answering questionnaires. Participants assigned to this condition will complete the questionnaires involved in part 3 (excluding questions asking about the baseline task) and a number of filler questionnaires (denoted as filler questionnaires in attachment 7). The survey for participants in the baseline condition is not meant to be finished; we include a survey that cannot be finished in 10 minutes to ensure everyone does a baseline task for the same amount of time (10 minutes). The questionnaires for participants in the baseline condition will time out after 10 minutes. Participants will answer an additional question assessing their current level of stress at the end of the baseline task.

After the baseline procedure participants will complete a test of executive functioning called the Stroop task to assess cognitive load. The Stroop task measures reaction time in identifying the color of a written word (e.g. the word blue is written in red ink, participants must respond with red) or reading the name of a color written in a different color (e.g. the word yellow is written in blue ink, participants must respond with yellow).

Following the Stroop task participants will complete questionnaires that include questions about the study procedures, demographics, stress, preferences (e.g. enjoys abstract thought tasks), psychological functioning (e.g. depression, anxiety, rumination), personality traits, current illness, current mood and daily habits (e.g. caffeine consumption, sleep and meditation). As previously stated participants in the questionnaire baseline condition will only complete questions related to the baseline task; they will not answer the same set of questionnaires twice. When the questionnaires are completed participants will be disconnected from heart rate, blood pressure and respiration equipment and dismissed. Research credits will be assigned manually at least once every two weeks.

Analyses:

All analyses will follow standard well-established analytic routines for each aspect of the study (e.g. using Acknowledge software for blood pressure, respiratory activity, and heart rate analyses; Stata for survey data, etc.).

INFORMED CONSENT FOR BASELINE & STRESS

Principal Investigator- Mary S. Himmelstein, Psychology Department. 409 Tillett Hall, Phone number: (848) 445-2059.
Email: msh127@rci.rutgers.edu (preferred contact over email) Advisor, Kristen Springer, Sociology Department,
Phone number: (848) 932-7516. Email kspringe@rci.rutgers.edu (preferred contact over email)

PURPOSE & PROCEDURES

You are invited to participate in a research study that is being conducted by Mary S. Himmelstein, who is a graduate student in the Psychology Department at Rutgers University. She is advised by Kristen W. Springer, PhD., who is an associate professor in the Sociology Department at Rutgers University. You must be between 18 and 25 years old to participate. The purpose of this study is to examine physiological arousal during various, 10-minute baseline periods. There are three parts involved in this study. First you will engage in a 10 minute baseline activity followed by a brief cognitive task. The last part of the study involves answering questionnaires, anonymously about your personal characteristics, preferences, level of stress, psychological functioning, daily habits, attitudes, beliefs and behaviors. Your heart rate, blood pressure and respiration will be measured continuously for the entirety of your participation. You may decline to answer any question at any time without penalty

Approximately, 200 participants will participate in this one hour study starting in September 2013 and ending in August 2015. In exchange for your participation, you will receive 2 RPU's towards your Introductory Psychology Subject Pool requirements. **Your participation is voluntary and you may withdrawal from the study at any time.** If you decide to withdrawal from the study prior the end of the study you will be compensated for the time you participated at the rate of 0.5 RPU's per 15 minutes of participation.

SURVEY EXCLUSIONS

The questions below will determine whether you are eligible to participate in this study. Please circle one of the options below. You may be still excluded from this study if your blood pressure levels are not within a specific range needed for this project..

- | | | |
|-----|----|---|
| Yes | No | Decline.....I am between the ages of 18 and 25 |
| Yes | No | Decline.....I have history of heart problems or significant cardiovascular disease, like a heart murmur |
| Yes | No | Decline.....I have history of blood pressure problems, like hypertension |
| Yes | No | Decline.....I have heart or blood-related conditions that cause me to bruise easily |
| Yes | No | Decline.....I am currently pregnant. |
| Yes | No | Decline.....I am currently taking any medication, prescription or otherwise, that affect my cardiovascular system like blood thinners, tranquilizers, anti-hypertensive, stimulants |
| Yes | No | DeclineI have (or had in the past) any serious psychiatric condition (schizophrenia, any psychotic disorder or personality disorder) |
| Yes | No | DeclineI am actively using illegal drugs or prescription drugs not prescribed to me. |

NOTICE OF LIVE-FEED

The cameras in the research room are hooked into a live feed. We may observe you through the live camera feed at any point during your participation, but the cameras are not recording your image.

Initial Here _____

RISKS AND BENEFITS

There are no foreseeable lasting risks to participation in the study. **You have the right to withdrawal at any point.** Some of the questions or tasks may cause you to experience anxiety or distress. In addition, the blood pressure cuff will compress your arm and two fingers. Removal of the heart rate stickers might be slightly uncomfortable (like removing a Band-Aid). It is unlikely that you will personally benefit from your participation, but this experience may be an interesting opportunity to think about how your body responds during various state of activity. Participation in this study is completely voluntary. Your participation is anonymous. We have no way of linking your biological (blood pressure, heart rate, respiration), behavioral (cognitive task), or survey data to your personal identity. If you would later like to be informed (in an aggregate form) about the results of the survey, please email the investigator whose contact information appears above. Please note that survey analysis can take 6 months or more to complete.

REFERRAL FOR COUNSELING

If, at any time during the course of this research, you feel the need to discuss your emotional well-being with a professional counselor, you may call the Rutgers college counseling centers (732-932-7884). Further, you can contact the principal investigator or her advisor (contact information listed above) for alternative counseling services. You will be responsible for all charges for these services and there is no commitment by Rutgers University to provide any compensation for research-related injuries.

PARTICIPANTS STATEMENT

I have read the study description above. I voluntarily consent to participate in this activity. If I have questions, I have the right to contact the experimenter or her advisor with them. I understand that future questions I may have about the research will be answered promptly by the investigator listed above. If I have any questions about my rights as a research participant, I may contact the Rutgers University Institutional Review Board for the Protection of Human Subjects, Office of Research and Sponsored Programs at (848) 932-0150. Address: 3 Rutgers Plaza, New Brunswick, NJ, 08901-8559. E-mail: humansubjects@orsp.rutgers.edu. I understand I may keep a copy of this page.

I have had an opportunity to ask questions about this statement. By signing below I am confirming that I do not meet any of the listed exclusionary criteria and give my full and voluntary consent to participate in this study.

Printed name (please print clearly)

Investigator's signature

Signature

Date

PRE/ POST BASELINE QUESTION ON STRESS

Please indicate your agreement with the following statements:

	1 Strongly Disagree	2	3	4	5 Strongly Agree
I am currently stressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTIONS ABOUT THE STUDY PROCEDURES

Please indicate your agreement with the following statements:

I found the baseline task...	1 Strongly Disagree	2	3	4	5 Strongly Agree
Engaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoyable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annoying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stressful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relaxing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frustrating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tedious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comforting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thought-Provoking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tiresome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you ever completed a task similar to the Stroop (colored words task)

Yes

No

Have you ever practiced relaxation techniques (for example: meditation, yoga, hypnosis, deep breathing) regularly?

Yes

No

Do you currently practice relaxation techniques (for example: meditation, yoga, hypnosis, deep breathing)?

Yes

No

How often do you practice relaxation techniques (for example: meditation, yoga, hypnosis, deep breathing)?

Rarely or None of the time (Less than 1 Day)

Some or a Little of the Time (1-2 Days)

Occasionally or a Moderate Amount of Time (3-4 Days)

Most or All of the time (5-7 Days)

Was there any point when the equipment made you uncomfortable?

Yes

No

When did the equipment make you uncomfortable? _____

What were you doing directly before coming to our study? _____

QUESTIONS ABOUT BEHAVIORS

	rarely or none of the time (less than 1 day)	some or a little of the time (1-2 days)	occasionally or a moderate amount (3-4 days)	most of all of the time (5-7 days)
How often do you get adequate sleep every day	1	2	3	4
How often do you sleep 7-8 hours a day	1	2	3	4

Did you consume any caffeine today (such as coffee, energy drinks, cola, or caffeine pills (e.g. Vivarin))?

Yes

No

Please describe the most recent items that you consumed containing caffeine (if applicable) and at what approximate time they were consumed.

Item 1 type:

Coffee

Energy Drink

Caffeinated soda or soft drink

Caffeine pill

Tea

Other

Item 1 Time Consumed: _____

Item 2 type:

Coffee

Energy Drink

Caffeinated soda or soft drink

Caffeine pill

Tea

Other

Item 2 Time Consumed:

Item 3 type:

Coffee

Energy Drink

Caffeinated soda or soft drink

Caffeine pill

Tea

Other

Item 3 Time Consumed:

Do you normally drink caffeine?

Yes

No

Are you currently sick or getting over a recent illness?

Yes

No

Are you currently sick or getting over a recent illness?

Yes

No

PERCEIVED STRESS SCALE: Cohen, Kamarck & Memelstein, 1983.

(Included as part of BL resting task & at end for participants not in the Q condition)

The questions in this scale ask you about your feelings and thoughts during THE LAST WEEK. In each case, please indicate your response by placing an "X" over the circle representing HOW OFTEN you felt or thought a certain way.

- 0. never
- 1. almost never
- 2. sometimes
- 3. fairly often
- 4. very often

	never 0	almost never 1	sometimes 2	fairly often 3	very often 4
1. In the last week, how often have you been upset because of something that happened unexpectedly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. In the last week, how often have you felt that you were unable to control the important things in your life?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. In the last week, how often have you felt nervous and "stressed"?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. In the last week, how often have you felt confident about your ability to handle your personal problems?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. In the last week, how often have you felt that things were going your way?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. In the last week, how often have you found that you could not cope with all the things that you had to do?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. In the last week, how often have you been able to control irritations in your life?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. In the last week, how often have you felt that you were on top of things?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. In the last week, how often have you been angered because of things that were outside your control?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. In the last week, how often have you felt difficulties were piling up so high that you could not overcome them?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

POSITIVE AND NEGATIVE AFFECT SCALE: Watson & Clark, Tellegen, 1988
(Included as part of BL resting task & at end for participants not in the Q condition)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way in the last few hours. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely
	_____ interested		_____ irritable	
	_____ distressed		_____ alert	
	_____ excited		_____ ashamed	
	_____ upset		_____ inspired	
	_____ strong		_____ nervous	
	_____ guilty		_____ determined	
	_____ scared		_____ attentive	
	_____ hostile		_____ jittery	
	_____ enthusiastic		_____ active	
	_____ proud		_____ afraid	

CENTER FOR EPIDEMIOLOGIC STUDIES –DEPRESSION SCALE
(Included as part of BL resting task & at end for participants not in the Q condition)

Below is a list of ways you might have felt or behaved. Please tell me how often you have felt this way during the past week:

- Rarely or None of the time (Less than 1 Day)
- Some or a Little of the Time (1-2 Days)
- Occasionally or a Moderate Amount of Time (3-4 Days)
- Most or All of the time (5-7 Days)

During the past week:

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people dislike me.
20. I could not get "going."

RRS

People think and do many different things when they feel sad, blue, or depressed. Please indicate if you never, sometimes, often, or always think or do each one of the options below when you feel down, sad, or depressed. Please indicate what you generally do, not what you think you should do.

1 = almost never

2 = sometimes 3 = often

4 = almost always

1. Think about how alone you feel_____
2. Think "I won't be able to do my job if I don't snap out of this."_____
3. Think about your feelings of fatigue and achiness _____
4. Think about how hard it is to concentrate_____
5. Think "What am I doing to deserve this?" _____
6. Think about how passive and unmotivated you feel_____
7. Analyze recent events to try to understand why you are depressed_____
8. Think about how you don't seem to feel anything anymore_____
9. Think "Why can't I get going?"_____
10. Think "Why do I always react this way?"_____
11. Go away by yourself and think about why you feel this way_____
12. Write down what you are thinking and analyze it_____
13. Think about a recent situation, wishing it had gone better_____
14. Think "I won't be able to concentrate if I keep feeling this way."_____
15. Think "Why do I have problems other people don't have?"_____
16. Think "Why can't I handle things better?"_____
17. Think about how sad you feel_____
18. Think about all your shortcomings, failings, faults, mistakes_____
19. Think about how you don't feel up to doing anything_____
20. Analyze your personality to try to understand why you are depressed_____
21. Go someplace alone to think about your feelings_____
22. Think about how angry you are with yourself_____

DEMOGRAPHICS:

Please indicate your sexual orientation

- Heterosexual/ Straight
- Homosexual/ Gay/ Lesbian
- Bisexual
- Questioning

What is your current age: _____

What is your current marital status?

- ☐ Single
- ☐ Cohabiting
- ☐ Married
- ☐ In a Relationship, but not married or cohabiting
- ☐ Divorced
- ☐ Widowed

What is your gender?

- Male
- Female

Please indicate the zip code where you spent most of your life: _____

Did you live in the zip code for more than one year?

Yes

No

If No: How many months did you live in this zip code? _____

If Yes: How many years did you live in this zip code? _____

What is the highest level of education your mother completed?

- Did not complete high school
- High school degree/ GED
- 1 year of college
- 2 years of college
- 3 or more years of college
- Associate degree
- Bachelor's degree
- Master's degree
- Doctorate
- Unsure

What is the highest level of education your father completed?

- Did not complete high school
- High school degree/ GED
- 1 year of college
- 2 years of college
- 3 or more years of college
- Associate degree
- Bachelor's degree
- Master's degree
- Doctorate
- Unsure

BIG FIVE (John & Srivastava, 1999)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

I see myself as someone who...	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1. Is talkative	1	2	3	4	5
2. Tends to find fault with others	1	2	3	4	5
3. Does a thorough job	1	2	3	4	5
4. Is depressed, blue	1	2	3	4	5
5. Is original, comes up with new ideas	1	2	3	4	5
6. Is reserved	1	2	3	4	5
7. Is helpful and unselfish with others	1	2	3	4	5
8. Can be somewhat careless	1	2	3	4	5
9. Is relaxed, handles stress well	1	2	3	4	5
10. Is curious about many different things	1	2	3	4	5
11. Is full of energy	1	2	3	4	5
12. Starts quarrels with others	1	2	3	4	5
13. Is a reliable worker	1	2	3	4	5
14. Can be tense	1	2	3	4	5
15. Is ingenious, a deep thinker	1	2	3	4	5
16. Generates a lot of enthusiasm	1	2	3	4	5
17. Has a forgiving nature	1	2	3	4	5
18. Tends to be disorganized	1	2	3	4	5
19. Worries a lot	1	2	3	4	5
20. Has an active imagination	1	2	3	4	5
21. Tends to be quiet	1	2	3	4	5
22. Is generally trusting	1	2	3	4	5
23. Tends to be lazy	1	2	3	4	5
24. Is emotionally stable, not easily upset	1	2	3	4	5
25. Is inventive	1	2	3	4	5
26. Has an assertive personality	1	2	3	4	5
27. Can be cold and aloof	1	2	3	4	5
28. Perseveres until the task is finished	1	2	3	4	5
29. Can be moody	1	2	3	4	5
30. Values artistic, aesthetic experiences	1	2	3	4	5
31. Is sometimes shy, inhibited	1	2	3	4	5
32. Is considerate and kind to almost everyone	1	2	3	4	5
33. Does things efficiently	1	2	3	4	5
34. Remains calm in tense situations	1	2	3	4	5
35. Prefers work that is routine	1	2	3	4	5
36. Is outgoing, sociable	1	2	3	4	5
37. Is sometimes rude to others	1	2	3	4	5
38. Makes plans and follows through with them	1	2	3	4	5
39. Gets nervous easily	1	2	3	4	5
40. Likes to reflect, play with ideas	1	2	3	4	5
41. Has few artistic interests	1	2	3	4	5
42. Likes to cooperate with others	1	2	3	4	5
43. Is easily distracted	1	2	3	4	5
44. Is sophisticated in art, music, or literature	1	2	3	4	5

Need for Cognition Scale (from Cacioppo, Petty, & Kao, 1984)

For each of the statements below, please indicate whether or not the statement is characteristic of you or of what you believe. For example, if the statement is extremely uncharacteristic of you or of what you believe about yourself (not at all like you) please place a "1" on the line to the left of the statement. If the statement is extremely characteristic of you or of what you believe about yourself (very much like you) please place a "5" on the line to the left of the statement. You should use the following scale as you rate each of the statements below.

	1	2	3	4	5
	Extremely uncharacteristic of me	Somewhat characteristic of me	Uncertain	Somewhat characteristic of me	Extremely characteristic of me
1. I prefer complex to simple problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I like to have the responsibility of handling a situation that requires a lot of thinking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Thinking is not my idea of fun.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I find satisfaction in deliberating hard and for long hours.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I only think as hard as I have to.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I prefer to think about small daily projects to long term ones.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I like tasks that require little thought once I've learned them.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. The idea of relying on thought to make my way to the top appeals to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I really enjoy a task that involves coming up with new solutions to problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Learning new ways to think doesn't excite me very much.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I prefer my life to be filled with puzzles I must solve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. The notion of thinking abstractly is appealing to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I feel relief rather than satisfaction after completing a task that requires a lot of mental effort.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. It's enough for me that something gets the job done; I don't care how or why it works.**	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I usually end up deliberating about issues even when they do not affect me personally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NOTE: Measures on the remaining pages are only asked of participants in the questionnaire baseline condition as filler questionnaires. These are asked prior to the Stroop Task:

STATE TRAIT ANXIETY INVENTORY (Spielberger, Gorsuch & Lushene, 1970)

A number of statements which people have used to describe themselves are given below. Read each statement and mark the appropriate option to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	Not at all	Somewhat	Moderately so	Very much so
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I am tense	1	2	3	4
4. I feel strained	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am presently worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

STATE TRAIT ANXIETY INVENTORY (continued) (Spielberger, Gorsuch & Lushene, 1970)

A number of statements which people have used to describe themselves are given below. Read each statement and mark the appropriate option to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	Almost Never	Sometime s	Often	Almost Always
21. I feel pleasant				
22. I feel nervous and restless	1	2	3	4
23. I feel satisfied with myself	1	2	3	4
24. I wish I could be as happy as others seem to be	1	2	3	4
25. I feel like a failure	1	2	3	4
26. I feel rested	1	2	3	4
27. I am "calm, cool, collected"	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29. I worry too much over something that really doesn't matter	1	2	3	4
30. I am happy	1	2	3	4
31. I have disturbing thoughts	1	2	3	4
32. I lack self-confidence	1	2	3	4
33. I feel secure	1	2	3	4
34. I make decisions easily	1	2	3	4
35. I feel inadequate	1	2	3	4
36. I am content	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind	1	2	3	4
39. I am a steady person	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

SPIELBERGER'S TRAIT ANGER SCALE (Spielberger et al. 1983)

Mark the option that best describes how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	Almost Never	Sometimes	Often	Almost Always
1. I have a fiery temper				
2. I am quick tempered	1	2	3	4
3. I am a hot-headed person	1	2	3	4
4. I get annoyed when I am singled out for correction	1	2	3	4
5. It makes me furious when I am criticized in front of others	1	2	3	4
6. I get angry when I'm slowed down by others mistakes	1	2	3	4
7. I feel infuriated when I do a good job and get a poor evaluation	1	2	3	4
8. I fly off the handle	1	2	3	4
9. I feel annoyed when I am not given recognition for doing good work	1	2	3	4
10. People who think they are always right irritate me	1	2	3	4
11. When I get mad, I say nasty things	1	2	3	4
12. I feel irritated	1	2	3	4
13. I feel angry	1	2	3	4
14. When I get frustrated, I feel like hitting someone	1	2	3	4
15. It makes my blood boil when I am under pressure	1	2	3	4

NARCISSISTIC PERSONALITY INVENTORY (Raskin & Terry, 1988)

Read each pair of statements below and place an "X" by the one that comes closest to describing your feelings and beliefs about yourself. You may feel that neither statement describes you well, but pick the one that comes closest.

Please complete all pairs.

1. ___ I really like to be the center of attention
 ___ It makes me uncomfortable to be the center of attention
2. ___ I am no better or no worse than most people
 ___ I think I am a special person
3. ___ Everybody likes to hear my stories
 ___ Sometimes I tell good stories
4. ___ I usually get the respect that I deserve
 ___ I insist upon getting the respect that is due me
5. ___ I don't mind following orders
 ___ I like having authority over people
6. ___ I am going to be a great person
 ___ I hope I am going to be successful
7. ___ People sometimes believe what I tell them
 ___ I can make anybody believe anything I want them to
8. ___ I expect a great deal from other people
 ___ I like to do things for other people
9. ___ I like to be the center of attention
 ___ I prefer to blend in with the crowd
10. ___ I am much like everybody else
 ___ I am an extraordinary person
11. ___ I always know what I am doing
 ___ Sometimes I am not sure of what I am doing
12. ___ I don't like it when I find myself manipulating people
 ___ I find it easy to manipulate people
13. ___ Being an authority doesn't mean that much to me
 ___ People always seem to recognize my authority
14. ___ I know that I am good because everybody keeps telling me so
 ___ When people compliment me I sometimes get embarrassed
15. ___ I try not to be a show off
 ___ I am apt to show off if I get the chance
16. ___ I am more capable than other people
 ___ There is a lot that I can learn from other people

basic need satisfaction scale

feelings I have: Please read each of the following items carefully, thinking about how it relates to your life, and then indicate how true it is for you. Use the following scale to respond:

	1	2	3	4	5	6	7
<i>not at all true</i>			<i>somewhat true</i>			<i>very true</i>	

1. I feel like I am free to decide for myself how to live my life.
2. I really like the people I interact with.
3. Often, I do not feel very competent.
4. I feel pressured in my life.
5. People I know tell me I am good at what I do.
6. I get along with people I come into contact with.
7. I pretty much keep to myself and don't have a lot of social contacts.
8. I generally feel free to express my ideas and opinions.
9. I consider the people I regularly interact with to be my friends.
10. I have been able to learn interesting new skills recently.
11. In my daily life, I frequently have to do what I am told.
12. People in my life care about me.
13. Most days I feel a sense of accomplishment from what I do.
14. People I interact with on a daily basis tend to take my feelings into consideration.
15. In my life I do not get much of a chance to show how capable I am.
16. There are not many people that I am close to.
17. I feel like I can pretty much be myself in my daily situations.
18. The people I interact with regularly do not seem to like me much.
19. I often do not feel very capable.
20. There is not much opportunity for me to decide for myself how to do things in my daily life.
21. People are generally pretty friendly towards me.

DOMAIN SPECIFIC RISK-TAKING (Blais & Weber, 2006)

For each of the following statements, please indicate the **likelihood** that you would engage in the described activity or behavior if you were to find yourself in that situation. Provide a rating from *Extremely Unlikely* to *Extremely Likely*, using the following scale:

1	2	3	4	5	6	7
Extremely Unlikely	Moderately Unlikely	Somewhat Unlikely	Not Sure	Somewhat Likely	Moderately Likely	Extremely Likely

1. Admitting that your tastes are different from those of a friend. (S)
2. Going camping in the wilderness. (R)
3. Betting a day's income at the horse races. (F/G)
4. Investing 10% of your annual income in a moderate growth mutual fund. (F/I)
5. Drinking heavily at a social function. (H/S)
6. Taking some questionable deductions on your income tax return. (E)
7. Disagreeing with an authority figure on a major issue. (S)
8. Betting a day's income at a high-stake poker game. (F/G)
9. Having an affair with a married man/woman. (E)
10. Passing off somebody else's work as your own. (E)
11. Going down a ski run that is beyond your ability. (R)
12. Investing 5% of your annual income in a very speculative stock. (F/I)
13. Going whitewater rafting at high water in the spring. (R)
14. Betting a day's income on the outcome of a sporting event (F/G)
15. Engaging in unprotected sex. (H/S)
16. Revealing a friend's secret to someone else. (E)
17. Driving a car without wearing a seat belt. (H/S)
18. Investing 10% of your annual income in a new business venture. (F/I)
19. Taking a skydiving class. (R)
20. Riding a motorcycle without a helmet. (H/S)
21. Choosing a career that you truly enjoy over a more secure one. (S)
22. Speaking your mind about an unpopular issue in a meeting at work. (S)
23. Sunbathing without sunscreen. (H/S)
24. Bungee jumping off a tall bridge. (R)
25. Piloting a small plane. (R)
26. Walking home alone at night in an unsafe area of town. (H/S)
27. Moving to a city far away from your extended family. (S)
28. Starting a new career in your mid-thirties. (S)
29. Leaving your young children alone at home while running an errand. (E)
- Not returning a wallet you found that contains \$200. (E)

BARRIERS TO HELP SEEKING SCALE

Imagine that you begin to experience some pain in your body. The pain is not so overwhelming that you can't function. However, it continues for more than a few days and you notice it regularly. You consider seeking help from a medical doctor or other clinician at the student health center. Below are several reasons why you might choose NOT to seek help. Please read each reason and decide how important it would be in keeping you from seeking help.

	Not at all				Very much
I would think less of myself for needing help.	1	2	3	4	5
I don't like other people telling me what to do.	1	2	3	4	5
Nobody knows more about my problems than I do.	1	2	3	4	5
I'd feel better about myself knowing I didn't need help from others.	1	2	3	4	5
I don't like feeling controlled by other people.	1	2	3	4	5
It would seem weak to ask for help.	1	2	3	4	5
I like to make my own decisions and not be too influenced by others.	1	2	3	4	5
I like to be in charge of everything in my life.	1	2	3	4	5
Asking for help is like surrendering authority over my life.	1	2	3	4	5
I do not want to appear weaker than my peers.	1	2	3	4	5
The problem wouldn't seem worth getting help for.	1	2	3	4	5
The problem wouldn't be a big deal; it would go away in time.	1	2	3	4	5
I wouldn't want to overreact to a problem that wasn't serious.	1	2	3	4	5
Problems like this are part of life; they're just something you have to deal with.	1	2	3	4	5
I'd prefer just to suck it up rather than dwell on my problems	1	2	3	4	5
I would prefer to wait until I'm sure the health problem is a serious one.	1	2	3	4	5
People typically expect something in return when they provide help.	1	2	3	4	5
I would have real difficulty finding transportation to a place where I can get help.	1	2	3	4	5
I wouldn't know what sort of help was available.	1	2	3	4	5
Financial difficulties would be an obstacle to getting help.	1	2	3	4	5
I don't trust doctors and other health professionals.	1	2	3	4	5
A lack of health insurance would prevent me from asking for help.	1	2	3	4	5
Privacy is important to me, and I don't want other people to know about my problems.	1	2	3	4	5
This problem is embarrassing.	1	2	3	4	5
I don't want some stranger touching me in ways I'm not comfortable with.	1	2	3	4	5
I don't like taking off my clothes in front of other people.	1	2	3	4	5
I wouldn't want someone of the same sex touching my body.	1	2	3	4	5
I don't like to get emotional about things.	1	2	3	4	5
I don't like to talk about feelings.	1	2	3	4	5
I'd rather not show people what I'm feeling.	1	2	3	4	5
I wouldn't want to look stupid for not knowing how to figure this problem out.	1	2	3	4	5

BARRATT IMPULSIVENESS SCALE (Stanford, Mathias, Dougherty, Lake, Anderson, & Patton, 2009)

Directions: People differ in the ways they act and think in different situations. This is a test to measure some of the ways in which you act and think. Read each statement and put an X on the appropriate circle on the right side of this page. Do not spend too much time on any statement.

Answer quickly and honestly

	Rarely/ Never	Occasionally	Often	Almost Always/ Always
I plan tasks carefully.	1	2	3	4
I do things without thinking.	1	2	3	4
I make-up my mind quickly.	1	2	3	4
I am happy-go-lucky.	1	2	3	4
I don't "pay attention."	1	2	3	4
I have "racing" thoughts.	1	2	3	4
I plan trips well ahead of time.	1	2	3	4
I am self controlled.	1	2	3	4
I concentrate easily.	1	2	3	4
I save regularly.	1	2	3	4
I "squirm" at plays or lectures.	1	2	3	4
I am a careful thinker.	1	2	3	4
I plan for job security.	1	2	3	4
I say things without thinking.	1	2	3	4
I like to think about complex problems.	1	2	3	4
I change jobs.	1	2	3	4
I act "on impulse."	1	2	3	4
I get easily bored when solving thought problems.	1	2	3	4
I act on the spur of the moment.	1	2	3	4
I am a steady thinker.	1	2	3	4
I change residences.	1	2	3	4
I buy things on impulse.	1	2	3	4
I can only think about one thing at a time.	1	2	3	4
I change hobbies.	1	2	3	4
I spend or charge more than I earn.	1	2	3	4
I often have extraneous thoughts when thinking.	1	2	3	4
I am more interested in the present than the future.	1	2	3	4
I am restless at the theater or lectures.	1	2	3	4
I like puzzles.	1	2	3	4
I am future oriented.	1	2	3	4

DICKMAN IMPULSIVITY INVENTORY (Dickman, 1990)

	Strongly Agree	Agree	Disagree	Strongly Disagree
I will often say whatever comes into my head without thinking first.	1	2	3	4
I enjoy working out problems slowly and carefully.	1	2	3	4
I frequently make appointments without thinking about whether I will be able to keep them.	1	2	3	4
I frequently buy things without thinking about whether or not I can really afford them.	1	2	3	4
I often make up my mind without taking the time to consider the situation from all angles.	1	2	3	4
Often, I don't spend enough time thinking over a situation before I act	1	2	3	4
I often get into trouble because I don't think before I act.	1	2	3	4
Many times the plans I make don't work out because I haven't gone over them carefully enough in advance.	1	2	3	4
I rarely get involved in projects without first considering the potential problems	1	2	3	4
Before making any important decision, I carefully weigh the pros and cons.	1	2	3	4
I am good at careful reasoning.	1	2	3	4
I often say and do things without considering the consequences.	1	2	3	4
I don't like to make decisions quickly, even simple decisions, such as choosing what to wear, or what to have for dinner.	1	2	3	4
I am good at taking advantage of unexpected opportunities, where you have to do something immediately or lose your chance.	1	2	3	4
Most of the time, I can put my thoughts into words very rapidly.	1	2	3	4
I am uncomfortable when I have to make up my mind rapidly.	1	2	3	4
I like to take part in really fast-paced conversations, where you don't have much time to think before you speak.	1	2	3	4
I don't like to do things quickly, even when I am doing something that is not very difficult.	1	2	3	4
I would enjoy working at a job that required me to make a lot of split-second decisions.	1	2	3	4
I like sports and games in which you have to choose your next move very quickly.	1	2	3	4
I have often missed out on opportunities because I couldn't make up my mind fast enough.	1	2	3	4
People have admired me because I can think quickly.	1	2	3	4
I try to avoid activities where you have to act without much time to think first.	1	2	3	4

PRECARIOUS MANHOOD

	Strongly Disagree			Undecided			Strongly Agree
1. It's fairly easy for a man to lose his status as a man.	1	2	3	4	5	6	7
2. A male's status as a real man sometimes depends on how other people view him.	1	2	3	4	5	6	7
3. A man needs to prove his masculinity.	1	2	3	4	5	6	7
4. A boy needs to become a man; it doesn't 'just happen.'	1	2	3	4	5	6	7
5. The title of 'manhood' needs to be reserved for those who deserve it.	1	2	3	4	5	6	7
6. You're not a man if you don't like masculine things.	1	2	3	4	5	6	7

MALE ROLE NORMS

	Disagree	Slightly disagree	Neither Agree nor disagree	Slightly Agree	Agree
1. Success in his work has to be man's central goal in this life.	1	2	3	4	5
2. The best way for a young man to get the respect of other people is to get a job, take it seriously, and do it well.	1	2	3	4	5
3. A man owes it to his family to work at the best-paying job he can get.	1	2	3	4	5
4. A man should generally work overtime to make more money whenever he has the chance.	1	2	3	4	5
5. A man always deserves the respect of his wife and children.	1	2	3	4	5
6. It is essential for a man to always have the respect and admiration of everyone who knows him.	1	2	3	4	5
7. A man should never back down in the face of trouble.	1	2	3	4	5
8. I always like a man who's totally sure of himself.	1	2	3	4	5
9. A man should always think everything out coolly and logically, and have rational reasons for everything he does.	1	2	3	4	5
10. A man should always try to project an air of confidence even if he really doesn't feel confident inside.	1	2	3	4	5
11. A man must stand on his own two feet and never depend on other people to help him do things.	1	2	3	4	5
12. When a man is feeling pain he should not let it show.	1	2	3	4	5
13. Nobody respects a man very much who frequently talks about his worries, fears, and problems.	1	2	3	4	5
14. A good motto for a man would be "When the going gets tough, the tough get going."	1	2	3	4	5
15. I think a young man should try to become physically tough, even if he's not big.	1	2	3	4	5
16. Fists are sometimes the only way to get out of a bad situation.	1	2	3	4	5
17. A real man enjoys a bit of danger now and then	1	2	3	4	5
18. In some kinds of situations a man should be ready to use his fists, even if his wife or his girlfriend would object.	1	2	3	4	5
19. A man should always refuse to get into a fight, even if there seems to be no way to avoid it.	1	2	3	4	5
20. It bothers me when a man does something that I consider "feminine"	1	2	3	4	5
21. A man whose hobbies are cooking, sewing, and going to the ballet probably wouldn't appeal to me	1	2	3	4	5

22. It is a bit embarrassing for a man to have a job that is usually filled by a woman.	1	2	3	4	5
23. Unless he was really desperate, I would probably advise a man to keep looking rather than accept a job as a secretary	1	2	3	4	5
24. If I heard about a man who was a hairdresser or a gourmet cook, I might wonder how masculine he was.	1	2	3	4	5
25. I think it's extremely good for a boy to be taught to cook, sew, clean the house, and take care of younger children.	1	2	3	4	5
26. I might find it a little silly or embarrassing if a male friend of mine cried over a sad love scene in a movie.	1	2	3	4	5

ATTITUDES TOWARDS WOMEN SCALE (Spence, Helmrich & Stapp, 1978) – Short version

Instructions: The statements listed below describe attitudes toward the roles of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feeling about each statement by indicating whether you (1) agree strongly, (2) agree mildly, (3) disagree mildly, or (4) disagree strongly.

	Strongly Disagree			Strongly agree
Swearing and obscenity are more repulsive in the speech of a woman than of a man	1	2	3	4
Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.	1	2	3	4
Both husband and wife should be allowed the same grounds for divorce.	1	2	3	4
Telling dirty jokes should be mostly a masculine prerogative.	1	2	3	4
Intoxication among women is worse than intoxication among men.	1	2	3	4
Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.	1	2	3	4
It is insulting to women to have the "obey" clause remain in the marriage service.	1	2	3	4
There should be a strict merit system in job appointment and promotion without regard to sex.	1	2	3	4
A woman should be free as a man to propose marriage.	1	2	3	4
Women should worry less about their rights and more about becoming good wives and mothers.	1	2	3	4
Women earning as much as their dates should bear equally the expense when they go out together.	1	2	3	4
Women should assume their rightful place in business and all the professions along with men.	1	2	3	4
A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.	1	2	3	4
Sons in a family should be given more encouragement to go to college than daughters.	1	2	3	4
It is ridiculous for a woman to run a locomotive and for a man to darn socks.	1	2	3	4
In general, the father should have greater authority than the mother in the bringing up of children.	1	2	3	4
Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.	1	2	3	4

Gender Role Beliefs Scale (Kerr & Holder, 1996)							
	Strongly agree	Undecided			Strongly disagree		
1. It is disrespectful for a man to swear in the presence of a lady.	1	2	3	4	5	6	7
2. Women should not expect men to offer them seats on buses.	1	2	3	4	5	6	7
3. Homosexual relationships should be as socially accepted as heterosexual relationships.	1	2	3	4	5	6	7
4. The initiative in courtship should usually come from the man.	1	2	3	4	5	6	7
5. It bothers me more to see a woman who is pushy than a man who is pushy.	1	2	3	4	5	6	7
6. When sitting down at the table, proper respect demands that the gentleman hold the lady's chair.	1	2	3	4	5	6	7
7. Women should have as much sexual freedom as men	1	2	3	4	5	6	7
8. Women should appreciate the protection and support that men have traditionally given them	1	2	3	4	5	6	7
9. Women with children should not work outside the home if they don't have to financially.	1	2	3	4	5	6	7
10. I see nothing wrong with a woman who doesn't like to wear skirts or dresses	1	2	3	4	5	6	7
11. The husband should be regarded as the legal representative of the family group in all matters of law.	1	2	3	4	5	6	7
12. I like women who are outspoken.	1	2	3	4	5	6	7
13. Except perhaps in very special circumstances, a gentleman should never allow a lady to pay the taxi, buy the tickets, or pay the check	1	2	3	4	5	6	7
14. Some equality in marriage is good, but by and large the husband ought to have the main say-so in family matters.	1	2	3	4	5	6	7
15. Men should continue to show courtesies to women such as holding open the door or helping them on with their coats	1	2	3	4	5	6	7
16. It is ridiculous for a woman to run a train and for a man to sew	1	2	3	4	5	6	7
17. A woman should be as free as a man to propose marriage.	1	2	3	4	5	6	7
18. Women should be concerned with their duties of childrearing and housetending, rather than with desires for professional and business careers.	1	2	3	4	5	6	7
19. Swearing and obscenity is more repulsive in the speech of women than men	1	2	3	4	5	6	7
20. There are some professions and types of businesses that are more suitable for men than women.	1	2	3	4	5	6	7

AMBIVALENT SEXISM INVENTORY (Glick & Fiske, 1996)

	Disagree Strongly					Agree Strongly
1. No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman.	0	1	2	3	4	5
2. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."	0	1	2	3	4	5
3. In a disaster, women ought not necessarily to be rescued before men.	0	1	2	3	4	5
4. Most women interpret innocent remarks or acts as being sexist.	0	1	2	3	4	5
5. Women are too easily offended.	0	1	2	3	4	5
6. People are often truly happy in life without being romantically involved with a member of the other sex.	0	1	2	3	4	5
7. Feminists are not seeking for women to have more power than men.	0	1	2	3	4	5
8. Many women have a quality of purity that few men possess.	0	1	2	3	4	5
9. Women should be cherished and protected by men.	0	1	2	3	4	5
10. Most women fail to appreciate fully all that men do for them.	0	1	2	3	4	5
11. Women seek to gain power by getting control over men.	0	1	2	3	4	5
12. Every man ought to have a woman whom he adores.	0	1	2	3	4	5
13. Men are complete without women.	0	1	2	3	4	5
14. Women exaggerate problems they have at work.	0	1	2	3	4	5
15. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.	0	1	2	3	4	5
16. When women lose to men in a fair competition, they typically complain about being discriminated against.	0	1	2	3	4	5
17. A good woman should be set on a pedestal by her man.	0	1	2	3	4	5
18. There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.	0	1	2	3	4	5
19. Women, compared to men, tend to have a superior moral sensibility.	0	1	2	3	4	5
20. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.	0	1	2	3	4	5
21. Feminists are making entirely reasonable demands of men.	0	1	2	3	4	5
22. Women, as compared to men, tend to have a more refined sense of culture and good taste.	0	1	2	3	4	5

Conformity to Masculine Norms Inventory

The following pages contain a series of statements about how people might think, feel or behave. The statements are designed to measure attitudes, beliefs, and behaviors associated with both traditional and non-traditional masculine gender roles.

Thinking about your own actions, feelings and beliefs, please indicate how much **you personally agree or disagree with each statement** by circling SD for "Strongly Disagree", D for "Disagree", A for "Agree", or SA for "Strongly agree" to the left of the statement. There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

1. It is best to keep your emotions hidden	SD	D	A	SA
2. In general, I will do anything to win	SD	D	A	SA
3. If I could, I would frequently change sexual partners	SD	D	A	SA
4. If there is going to be violence, I find a way to avoid it	SD	D	A	SA
5. It is important to me that people think I am heterosexual	SD	D	A	SA
6. In general, I must get my way	SD	D	A	SA
7. Trying to be important is the greatest waste of time	SD	D	A	SA
8. I am often absorbed in my work	SD	D	A	SA
9. I will only be satisfied when women are equal to men	SD	D	A	SA
10. I hate asking for help	SD	D	A	SA
11. Taking dangerous risks helps me to prove myself	SD	D	A	SA
12. In general, I do not expend a lot of energy trying to win at things	SD	D	A	SA
13. An emotional bond with a partner is the best part of sex	SD	D	A	SA
14. I should take every opportunity to show my feelings	SD	D	A	SA
15. I believe that violence is never justified	SD	D	A	SA
16. Being thought of as gay is not a bad thing	SD	D	A	SA
17. In general, I do not like risky situations	SD	D	A	SA
18. I should be in charge	SD	D	A	SA
19. Feelings are important to show	SD	D	A	SA
20. I feel miserable when work occupies all my attention	SD	D	A	SA
21. I feel best about my relationships with women when we are equals	SD	D	A	SA
22. Winning is not my first priority	SD	D	A	SA
23. I make sure that people think I am heterosexual	SD	D	A	SA
24. I enjoy taking risks	SD	D	A	SA
25. I am disgusted by any kind of violence	SD	D	A	SA
26. I would hate to be important	SD	D	A	SA
27. I love to explore my feelings with others	SD	D	A	SA
28. If I could, I would date a lot of different people	SD	D	A	SA
29. I ask for help when I need it	SD	D	A	SA
30. My work is the most important part of my life	SD	D	A	SA
31. Winning isn't everything, it's the only thing	SD	D	A	SA
32. I never take chances	SD	D	A	SA
33. I would only have sex if I was in a committed relationship	SD	D	A	SA
34. I like fighting	SD	D	A	SA
35. I treat women as equals	SD	D	A	SA
36. I bring up my feelings when talking to others	SD	D	A	SA
37. I would be furious if someone thought I was gay	SD	D	A	SA
38. I only get romantically involved with one person	SD	D	A	SA
39. I don't mind losing	SD	D	A	SA
40. I take risks	SD	D	A	SA
41. I never do things to be an important person	SD	D	A	SA
42. It would not bother me at all if someone thought I was gay	SD	D	A	SA
43. I never share my feelings	SD	D	A	SA
44. Sometimes violent action is necessary	SD	D	A	SA
45. Asking for help is a sign of failure	SD	D	A	SA

46. In general, I control the women in my life	SD	D	A	SA
47. I would feel good if I had many sexual partners	SD	D	A	SA
48. It is important for me to win	SD	D	A	SA
49. I don't like giving all my attention to work	SD	D	A	SA
50. I feel uncomfortable when others see me as important	SD	D	A	SA
51. It would be awful if people thought I was gay	SD	D	A	SA
52. I like to talk about my feelings	SD	D	A	SA
53. I never ask for help	SD	D	A	SA
54. More often than not, losing does not bother me	SD	D	A	SA
55. It is foolish to take risks	SD	D	A	SA
56. Work is not the most important thing in my life	SD	D	A	SA
57. Men and women should respect each other as equals	SD	D	A	SA
58. Long term relationships are better than casual sexual encounters	SD	D	A	SA
59. Having status is not very important to me	SD	D	A	SA
60. I frequently put myself in risky situations	SD	D	A	SA
61. Women should be subservient to men	SD	D	A	SA
62. I am willing to get into a physical fight if necessary	SD	D	A	SA
63. I like having gay friends	SD	D	A	SA
64. I feel good when work is my first priority	SD	D	A	SA
65. I tend to keep my feelings to myself	SD	D	A	SA
66. Emotional involvement should be avoided when having sex	SD	D	A	SA
67. Winning is not important to me	SD	D	A	SA
68. Violence is almost never justified	SD	D	A	SA
69. I am comfortable trying to get my way	SD	D	A	SA
70. I am happiest when I'm risking danger	SD	D	A	SA
71. Men should not have power over women	SD	D	A	SA
72. It would be enjoyable to date more than one person at a time	SD	D	A	SA
73. I would feel uncomfortable if someone thought I was gay	SD	D	A	SA
74. I am not ashamed to ask for help	SD	D	A	SA
75. The best feeling in the world comes from winning	SD	D	A	SA
76. Work comes first	SD	D	A	SA
77. I tend to share my feelings	SD	D	A	SA
78. I like emotional involvement in a romantic relationship	SD	D	A	SA
79. No matter what the situation I would never act violently	SD	D	A	SA
80. If someone thought I was gay, I would not argue with them about it	SD	D	A	SA
81. Things tend to be better when men are in charge	SD	D	A	SA
82. I prefer to be safe and careful	SD	D	A	SA
83. A person shouldn't get tied down to dating just one person	SD	D	A	SA
84. I tend to invest my energy in things other than work	SD	D	A	SA
85. It bothers me when I have to ask for help	SD	D	A	SA
86. I love it when men are in charge of women	SD	D	A	SA
87. It feels good to be important	SD	D	A	SA
88. I hate it when people ask me to talk about my feelings	SD	D	A	SA
89. I work hard to win	SD	D	A	SA
90. I would only be satisfied with sex if there was an emotional bond	SD	D	A	SA
91. I try to avoid being perceived as gay	SD	D	A	SA
92. I hate any kind of risk	SD	D	A	SA
93. I prefer to stay unemotional	SD	D	A	SA
94. I make sure people do as I say	SD	D	A	SA

OBJECTIFIED BODY CONSCIOUS SCALE (McKinley & Hyde, 1996)

	Strongly Disagree						Strongly Agree
I rarely think about how I look	1	2	3	4	5	6	7
I think it is more important that my clothes are comfortable than whether they look good on me	1	2	3	4	5	6	7
I think more about how my body feels than how my body looks	1	2	3	4	5	6	7
I rarely compare how I look with how other people look	1	2	3	4	5	6	7
During the day, I think about how I look many times	1	2	3	4	5	6	7
I often worry about whether the clothes I am wearing make me look good	1	2	3	4	5	6	7
I rarely worry about how I look to other people	1	2	3	4	5	6	7
I am more concerned with what my body can do than how it looks	1	2	3	4	5	6	7
When I can't control my weight I feel like something must be wrong with me	1	2	3	4	5	6	7
I feel ashamed of myself when I haven't made the effort to look my best	1	2	3	4	5	6	7
I feel I must be a bad person when I don't look as good as I could	1	2	3	4	5	6	7
I would be ashamed for people to know what I really weight	1	2	3	4	5	6	7
I never worry that something is wrong with me when I am not exercising as I should	1	2	3	4	5	6	7
When I'm not exercising enough, I question whether I am a good enough person	1	2	3	4	5	6	7
Even when I can't control my weight, I think I am an okay person	1	2	3	4	5	6	7
When I'm not the size I think I should be I feel ashamed	1	2	3	4	5	6	7
I think a person is pretty much stuck with the looks they are born with	1	2	3	4	5	6	7
A large part of being in shape is having that kind of body in the first place	1	2	3	4	5	6	7
I think a person can look pretty much how they want to if they are willing to work at it	1	2	3	4	5	6	7
I really don't think I have much control over how much body looks	1	2	3	4	5	6	7
I think a person's weight is mostly determined by the genes they are born with	1	2	3	4	5	6	7
It doesn't matter how hard I try to change my weight, it probably always going to be the same	1	2	3	4	5	6	7
I can weigh what I'm supposed to when I try hard enough	1	2	3	4	5	6	7
The shape you are in depends mostly on your genes	1	2	3	4	5	6	7
	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
I really don't like fat people much.	1	2	3	4	5	6	7
I don't have many friends that are fat.	1	2	3	4	5	6	7
I tend to think that people who are overweight are a little untrustworthy.	1	2	3	4	5	6	7
Although some fat people are surely smart, in general, I think they tend not to be quite as bright as normal weight people.	1	2	3	4	5	6	7
I have a hard time taking fat people too seriously.	1	2	3	4	5	6	7
Fat people make me feel somewhat uncomfortable.	1	2	3	4	5	6	7
If I were an employer looking to hire, I might avoid hiring a fat person.	1	2	3	4	5	6	7
I feel disgusted with myself when I gain weight.	1	2	3	4	5	6	7
One of the worst things that could happen to me would be if I gained 25 pounds.	1	2	3	4	5	6	7
I worry about becoming fat.	1	2	3	4	5	6	7
People who weigh too much could lose at least some part of their weight through a little exercise.	1	2	3	4	5	6	7
Some people are fat because they have no willpower.	1	2	3	4	5	6	7
Fat people tend to be fat pretty much through their own fault.	1	2	3	4	5	6	7