



Participant Informed Consent Form

Project Title: Ideology and Risk: How Neuroscience can Inform Nuclear Security

Purpose:

This research project will aim to improve our understanding of political decision-making. You must be 19 years of age or older to participate. You are invited to participate in this study because you responded to the recruitment flyer and met the MRI Safety Screening requirements.

Procedures and Methodologies:

You will be asked to complete social cognitive and economic tasks during functional Magnetic Resonance Imaging (fMRI) related to the evaluation of information. More specifically, you will be asked to make a series of interrelated decisions. After scanning, you will be asked to complete some personality questionnaires and provide additional explanation surrounding your decisions during the fMRI scan.

This study uses structural and functional Magnetic Resonance Imaging (fMRI) to look at the brain.

- a. Structural MRI—shows the structure of the brain.
- b. Functional MRI (fMRI)—relies on the properties of oxygenated (increased flow) and deoxygenated (decreased flow) blood to see images of changing blood flow in the brain associated with activity. The activity in different parts of the brain causes increased and decreased blood flow to ‘light up’ the scan. fMRI is typically used for neurological and cognitive psychology research.

MRI is a type of scan that uses magnetic fields and radio waves to take a picture of the brain so that researchers can better understand brain function.

The study will last approximately 2 hours. The consent process and additional survey questions 30 minutes each, totaling 60 minutes, outside the scanner. The fMRI scanning session will take approximately 60 minutes to complete once you are in the scanner. We will conduct a series of fMRI scans during which you will be using the button box to make judgements regarding the on-screen stimuli.

The information from the MRI machine is only useful if you are able to complete the whole imaging session and are still during the sequences. Therefore, you will be encouraged to hold as still as possible and communicate any discomfort to the investigators any time before or during a scan. You will have a squeeze bulb that will help to communicate with us while you are in the machine. You will also wear ear protection to minimize the loud noises made by the machine. The Center for Brain,



Biology and Behavior MRI Facility is a research facility. It is not a clinical MRI facility in a hospital. The magnetic resonance imaging (MRI) scan in which you are invited to participate is for research purposes only. The MRI scan is not a clinical scan intended for diagnostic or therapeutic purposes. The faculty and staff at the Center for Brain, Biology and Behavior are not neuroradiologists (physicians), and therefore, are not qualified to provide any medical comments on your brain scans. However, structural scans obtained from all research participants in the course of research participation at the Center for Brain, Biology and Behavior will be sent to a consulting neuroradiologist for blind review (any means of identifying the participant removed), except in cases when a participant's scans were already sent for review as part of research participation at the Center within the previous 6 months. It is unlikely in normal, healthy individuals for brain images to reveal clinically significant findings. If the neuroradiologist believes that the brain images contain an abnormality that warrants medical follow-up, the Principal Investigator for the research study in which you are participating (or his/her delegate) will notify you within three business days of the MRI scan. In these cases when medical follow-up is recommended, the Principal Investigator (or delegate) will offer you the images in digital format on a disk, as well as the initial report from the neuroradiologist. Images are only provided in cases when the neuroradiologist identifies an abnormality that warrants medical follow-up. Any follow-up medical care and associated costs will be your responsibility.

Note that because the MRI scans are for research purposes only, there is no guarantee that the images will show an existing abnormality that may appear in a clinical scan. By signing this consent form, you consent to have your de-identified images shared with a neuroradiologist for review

Benefits:

There are no direct benefits to you as a research participant. This research has the potential to improve our scientific understanding of how people make political decisions.

Risks and/or Discomforts:

Eligibility and cautions: To evaluate risks of participation and determine eligibility for inclusion in a MRI/fMRI study, the CB3 MRI Safety Screening Form must be filled out and reviewed with the MRI technologist. This form must be filled out to the best of your knowledge as these risks may be serious and potentially life threatening. The screening form covers devices, illnesses, injuries and medical procedures that affect participant safety. If completion of the screening form leads you or the MRI technologist to have safety concerns, you may be ineligible to participate in this study, or the MRI/fMRI portion of the study may need to be rescheduled at a later date to allow the MRI technologist to gather additional information about your health status to inform the level of risk.

Some people cannot have a MRI scan because they have internal or external metal devices in or on their body that cannot be removed. For instance, if you have a heart pacemaker, artificial heart valves, metal implants, chemotherapy or insulin pumps, or

other such metal clips or rings, you will not be allowed to participate. An internal metal device could turn on or off inappropriately, or could move within you, potentially damaging tissue or vessels resulting in injury or death. Not removing piercings could cause tissue damage, warming or burns.

Tattoos could cause warming, redness or burns around the tattooed body part. You will be informed to not make skin contact to the sides of the tunnel when in the MRI machine. In other words, you should stay as still as possible in the machine, and not touch any other part of the machine. If your skin makes direct contact to the sides of the machine, it could potentially cause mild to severe burns. Certain medications could also enhance side effects such as dizziness, light-headedness, or nausea.

At this time, as a policy of the CB3 MRI Facility, women who are pregnant or trying to become pregnant are excluded from participation in research projects involving a MRI/fMRI scan. Although there are no known negative effects on pregnant women or fetuses, very little is known of the possibility of any negative effects. This study may involve risks that we cannot predict.

Likely risks when following all security measures: None.

Less likely risks: During the MRI scan, potential discomforts may include: feeling cold, feeling warm, anxiety, body discomfort/stiffness, or a metallic taste. Lying still for a prolonged time may prove uncomfortable. Some individuals may have a claustrophobic response, which is a fear of confined spaces, and some may experience stiffness from lying still. The MRI machine makes loud banging noises while taking measurements, so ear protection will be used to reduce the noise.

You will be in communication with the MRI technologist throughout the MRI scan. If you experience any of these or other discomforts, you will be instructed to notify the MRI technologist immediately. You will be given a squeeze bulb to contact the MRI technologist, which may be used at any time before or during scanning.

Rare risks: An additional risk, though highly unlikely, is the possibility that metal objects could be pulled into the magnetic center of the MRI machine and hit you. To reduce this risk we require that all people involved with the study remove all metal from their clothing and all metal objects from their pockets. It is important to know that no metal can be brought into the MRI Room at any time. Once you are in the MRI machine, the door to the MRI Room will be closed so that no one from the outside accidentally goes near the MRI machine.

In Case of Injury:

It is unlikely that you will be injured as a result of your participation in this study. However, if you are injured as a direct result from study participation you should notify the investigator immediately, and we will ensure that treatment is sought at a location of your choice. However, you or your insurance carrier will be expected to pay for the costs of any treatment due to injury.

There may be side effects in association with the MRI that we cannot predict. If injured in any part of the fMRI procedure, an injury report will be completed and sent to the Chairperson and Director of the University of Nebraska-Lincoln Institutional Review Board and the Center for Brain, Biology, and Behavior, respectively. Identifiable information about your participation may be provided based on the report and the reviewer's needs.

Confidentiality:

Any information obtained during this study which could identify you will be kept strictly confidential. Electronic files are password-protected and printed forms are stored in a locked cabinet in the investigator's office. Identifiable information will only be viewed by the investigator(s) and MRI Technician. The information obtained in this study may be published in scientific journals or presented at scientific meetings, but the data will be reported as aggregated data. When required by academic journals or to facilitate open science practices, de-identified data may be shared online.

Compensation:

You will receive a \$30 Visa eGift Card for participating in this project. You will be asked to provide an email address for us to send this compensation to.

Opportunity to ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may contact the investigator(s) at the email address or phone number listed below. Please contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Freedom to Withdraw:

Participation in this study is voluntary. You can refuse to participate or withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln, or in any way receive a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate after having read and understood the information presented. You will be given a copy of this consent form to keep.

Names and Contact Information for Investigators

Ingrid Haas, Ph.D., Associate Professor of Political Science, Email: ihaas2@unl.edu
Rupal Mehta, Ph.D., Associate Professor of Political Science, Email: rmehta2@unl.edu
Geoff Lorenz, Ph.D., Assistant Professor of Political Science, Email: gmlorenz@unl.edu



Signature of Participant:

Printed Name of the Research Participant

Signature of the Research Participant

Date

Signature of Person Obtaining Consent:

Printed Name of Person Obtaining Consent

Signature of Person Obtaining Consent

Date