

Dartmouth College Brain Imaging Center

Department of Psychological and Brain Sciences

6207 Moore Hall

Hanover, New Hampshire 03755

Consent to Participate in Research

Title of Study: *Joint storytelling*

Introduction: You are being asked to participate in a research study. Your participation is voluntary. If you are a student your decision whether or not to participate will not have any affect on your academic status. Please feel free to ask questions at any time if there is anything you do not understand.

Purpose of this fMRI investigation. The purpose of these experiments is to determine the effect of two-way communication on the similarity of brain activity across speakers. You are being asked to participate because you are a normal healthy adult. Your participation allows us to determine basic principles of brain organization. The data obtained through your participation will be included with that from other subjects as part of a scientific study to appear in the peer-reviewed literature. These results may be useful for understanding how the brain functions.

Study Procedure: MRI: This is a special three-dimensional picture of the brain using magnetic waves. You will lie inside a narrow tube and hold still for 2 hours. Throughout the study you will be visible to the experimenter by means of a video camera and you will be in direct verbal communication with MRI personnel. You will view stimuli using a mirror and movie screen specially designed to work with the MRI machine and your responses will be in the form of button presses or hand movements. While in the MRI machine, you will be asked to create stories together with another participant. During the experiment it is very important for participants to remain as still as possible since the brain imaging technique is very sensitive to movement. You will be given specific instructions at the start of each task. Please ask the experimenter any questions that may arise while you are doing the task(s).

The purposes of this study are not described in detail because if they were, there would be a predictable effect on your responses. After the experiment, you will have an opportunity to discuss any questions pertaining to the study with the research team.

The Data Collected in this Study: Several types of brain image data may be collected as part of this investigation. This will include one or more of the following:

- A low-resolution scout image for use in aligning the scanner's field of view (~15 seconds)

- A low-resolution anatomical image of your brain structure for use in data processing (~2 minutes)
- One or more series of brain images collected over time that track brain function during the performance of a cognitive or behavioral task (typically 5 to 10 minutes in length)
- A high-resolution anatomical image of your brain structure for use in the display of results (~10 minutes)
- A diffusion-weighted image for assessing white matter fiber orientation often used in data analysis and modeling (~10 minutes)

Data concerning your age, gender, handedness, task performance, etc. will also be collected as part of the study.

MRI is commonly used in medicine for the purpose of diagnosing abnormalities of the brain. The procedures that are to be used in this study are different from clinical MRI scanning. As researchers, we do not intend to make any medical diagnosis with the MRI as used in this research project, and we are not trained in medical diagnosis. The MRI may not be reviewed in a timely way. However, if in the course of this research study we observe an anomaly in one or more of the MRI images, we feel ethically obligated to inform you of the observation. We believe it is important to inform you of such observations, because we cannot rule out the possibility that an anomaly may require medical attention. In this event, all information collected as part of this study will be made available to you for further examination by a medical professional. You will be fully responsible for the costs associated with a radiological examination and any further examinations or treatments that may be required for medical purposes. If you prefer not to be informed of an image anomaly, you must choose not to participate in the study.

If you are a Dartmouth student, depending on results of the medical review, we will also contact Dick's House or your parents to continue follow up.

Expiration Date on the Viability of the Collected Data: *Data gathered from this study will be maintained by the investigator for three years or as required by journal, federal or state regulation.*

Health Benefits to You: There are no direct benefits to you in participating in an fMRI study of brain function. These data are collected purely for the purposes of research and do not have a clinical or diagnostic value.

Risks to Your Health: The risks of participation in the MRI scanning procedure are minimal. Special considerations are made for the following:

1. *Metal:* The MRI machine produces a constant, strong magnetic field (3 Tesla), so if you have metal implants and clips within your body they may be influenced by the magnetic

field and shift in position. Thus, if you have such implants you must inform us and withdraw from the study. Metal earrings and necklaces also must be removed prior to the study. If you have shrapnel, surgical implants, or other pieces of metal in your body that cannot be removed, you may not be able to participate in studies involving the MRI scanner. In many cases, people having dental appliances in their mouths can participate but should notify the investigator to be certain.

2. *Women of child bearing potential:* The risks of an MRI scan to the unborn fetus are unknown. We strongly recommend pregnant women do not take part in this research study. By signing this form you are indicating to the best of your knowledge that you are not pregnant. If you are uncertain then the study can be rescheduled to a later date.

3. *Hearing:* Functional MRI scanning produces a loud (92 dB) high frequency tone that can cause hearing damage if appropriate hearing protection is not used. Adequate hearing protection in the form of foam ear-plugs will be provided and required.

4. *Claustrophobia:* The functional scanning coil fits closely around your head, so if you feel anxious in confined spaces, you may not want to participate. If you decide to participate, and then at a later time decide to discontinue, just let us know and we will stop the experiment.

Your Right to Withdraw from the Study: You may withdraw from the study at any time and for any reason. Your decision whether or not to participate in this study, or a decision to withdraw will not involve any penalty or loss of benefits to which you are entitled.

Financial Considerations for Participating: There are no costs to you for your participation in this study. If you are not a student receiving Dartmouth College T-point credits, you will be paid for your participation using the following guidelines:

At the rate of:	<u>\$20 per hour</u>
Travel reimbursement:	<u>\$5 (if you do not live locally)</u>

Your Right to Data Confidentiality: All information you provide will be kept confidential except as required by law. Your name will not be used in any publication that may result from this study. The Office of the Committee for the Protection of Human Subjects may request access to this form to ensure procedures designed to protect research participants are being properly followed. The manufacturer of the MRI scanner (Siemens) may request the use of images acquired in this study, although they will not have access to the names of any subjects. Your data may also be shared with other researchers around the world or with a publicly available data archive. In such cases, every reasonable effort will be made to remove identifiers from the data that would indicate any connection to you (e.g. the removal of your name, address, SSN, etc.).

Your Right to Revoke Consent to Participate in this fMRI Study: At any time now or in the future you feel that your data should no longer be used for research purposes, you have the right to revoke the consent you gave in signing this document. Please communicate your desire to have your data removed from the investigator's database by contacting the investigator(s) or person(s) listed below. Keep in mind that if your anonymized brain image data have been shared with other researchers or placed in a centralized archive, then it may be impossible to have these copies deleted.

Study Funding: This study is funded by the Department of Psychological and Brain Sciences of Dartmouth College.

Investigator Contact Information: This research is being conducted by members of the Department of Psychological and Brain Sciences at Dartmouth College. For further information about this study, or to report a research-related problem, you may contact:

Investigator or Contact Person(s):	Professor Thalia Wheatley
Phone Number:	(603) 646-0769
Email Address:	Thalia.P.Wheatley@Dartmouth.edu
CPHS Number:	30054

Should you have any additional questions about your participation in a research study, you may call the Office of the Committee for the Protection of Human Subjects at Dartmouth College at (603) 646-6482.

INFORMED CONSENT:

I HAVE READ THE ABOVE INFORMATION ABOUT THIS STUDY AND HAVE BEEN GIVEN AN OPPORTUNITY TO ASK QUESTIONS.

I AGREE TO PARTICIPATE IN THIS STUDY AND HAVE BEEN GIVEN A COPY OF THIS CONSENT FOR MY OWN RECORDS.

Printed Name

Participant's Signature and Date

Investigator's Signature and Date