IRB ID #: 202010173 APPROVAL DATE: 01/12/22 RELEASED DATE: 01/13/22 EXPIRATION DATE: N/A

[Insert greeting],

My name is [insert name] from Washington University in St. Louis. Thank you for your interest in our research study.

-OR-

I received your name and telephone number from colleagues at Washington University. I am calling you about a research study because you may be eligible to participate. The purpose of this study is to understand how the brain learns and retrieves information using behavioral and neuroimaging techniques.

Would you be interested in learning more about the study? Please feel free to ask questions at any time.

[If the individual states, "no"]

Thank you for your time and consideration. [End the call]

-OR-

[If the individual states, "yes"]

This is a research study conducted by the Complex Memory Lab having to do with learning and memory. If you agree to participate, you may be asked to complete cognitive tasks on a computer, participate in magnetic resonance imaging scans, and complete questionnaires.

This study involves (pick either)

- A) Behavior sessions only
- B) Behavior and imaging sessions
- C) Imaging sessions only
- A) (# SESSIONS) at Washington University's Danforth campus. You will be asked to complete several questionnaires and tasks on a computer. The session(s) will last (# HOURS). You will be paid \$10/hour for completing this study.
- B) (# SESSIONS) which will be completed on different days. In (# SESSIONS), you will need to come to Washington University's Danforth campus. You will be asked to complete several questionnaires and tasks on a computer. The session will last (# HOURS). You will be paid \$10/hour for your time. In the remaining (# SESSIONS), you will need to come to the Washington University School of Medicine. You will be asked to complete a task while in the MR scanner. This task could be a computer task where you will push buttons on a keypad, or a verbal task where you will speak into a microphone. You may also be asked to complete questionnaires. You are free to skip any question that you prefer not to answer. You will be paid \$25 per hour for your time.

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C) (# SESSIONS) at the Washington University School of Medicine. You will be asked to complete a task while in the MR scanner. This task could be a computer task where you will push buttons on a keypad, or a verbal task where you will speak into a microphone. You will be paid \$25 per hour for your time. You may also be asked to complete questionnaires. You are free to skip any question that you prefer not to answer.

In order to determine if you are eligible for this research study I need to ask you a few questions. This is called a phone screen. The phone screen is for research purposes and could last about 15 minutes. Before I can ask you some questions about your health history, I need to provide information on how we will collect, store, and record your responses to protect your privacy, confidentiality, and rights as a research participant. If you prefer to do this at a more convenient time please let me know.

Identifiers may be removed from your private information collected during this phone screen and used for future research or shared with others. If this occurs, we will not ask you for additional consent.

A risk of participating in this phone screen is that confidential information about you may be accidentally disclosed. You will not benefit from participating in the phone screen.

We will keep the information you provide confidential by using an ID code number for the information collected. Any report or article that we write will not include information that can directly identify you. However, federal regulatory agencies and Washington University, including the Washington University Institutional Review Board (a committee that reviews and approves research studies) and the Human Research Protection Office may inspect and copy records pertaining to this research activity.

Your participation in this phone screen is completely voluntary. You may choose not to take part at all. If you decide to participate in the phone screen you may stop participating at any time. Any data that was collected as part of this phone screen will remain as part of the study records and cannot be removed. If you decide not to take part in the phone screen, or if you stop participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify.

If, after completing this phone screen, you are eligible for the research study you will be asked at a later date to sign a separate consent form that includes more detailed information about the study.

We encourage you to ask questions. If you have any questions about the research study itself, please contact: Zachariah Reagh at (314) 935-5176. If you have questions, concerns, or complaints about your rights as a research participant, please contact the Human Research Protection Office at 1-(800)-438-0445 or email hrpo@wustl.edu. General information about being a research participant can be found on the Human Research Protection Office web site,

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http://hrpo.wustl.edu. To offer input about your experiences as a research participant or to speak to someone other than the research staff, call the Human Research Protection Office at the number I just mentioned. I can repeat it for you if you would like.

Do you agree to participate in the phone screen?

[If the individual states, "no"]

Thank you for your time and consideration. [End the call]

-OR-

[If the individual states, "yes" conduct the phone screen.]] A. B. & C – NEW PARTICIPANT SCREENER:

1. Contact Information

What is your full name?

What is your date of birth?

What is your preferred method of contact?

What is your email address?

What is your phone number?

How did you hear about this study?

A ONLY – BEHAVIOR-ONLY SCREENER:

1. General Eligibility

Do you have normal or corrected-to-normal hearing? Do you have normal or corrected-to-normal vision? Are you a native English speaker?

B & C ONLY – MRI SCREENER:

1. Previous experience with MRI

Have you ever participated in an fMRI study or been in an MRI scanner before?

Do you know how getting in a magnet works and have an idea of what it's like in the scanner? Have you seen a picture of an MRI scanner before?

[If the individual states, "no"]

You lie on your back on a table that raises and slides into a doughnut-shaped machine. We put cushions around your head, because the scanner is so sensitive to movement, and clip a cage-like "head coil" over your head that helps make sense of changes in the magnetic field. There is a mirror attached so you can see the task projected onto a screen outside of the scanner. This stays pretty close to your face for the whole session, which can be disconcerting at first, but most people quickly get used to it. You will be inserted up to around your waist in the tube. It is a very small space, and during the scan it makes some noise. You'll be given ear protection that double as headphones, so you can still hear our task

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and the instructions we will give over the microphone. We'll ask you to stay as still as you possibly can for the entire duration of the scan, which will be under (# HOURS). Does that sound like something you'd be okay with trying to do?

2. Demographic Information

What is your sex?

What is your age?

What is your height?

What is your weight?

Are you right or left handed?

Are you a native English speaker?

3. Medical Conditions

Do you have any metal implants or medical devices?

Do you have any metal piercings or jewelry that cannot be removed?

Do you have a permanent retainer?

Do you have any hearing problems?

Are you able to hear well enough to understand spoken instructions without aids?

Do you have any vision problems?

Do you wear glasses?

Can you read and see on a computer screen without your glasses?

Can you use contact lenses instead of your glasses?

[If the individual states, "no"]

If you decide to participate in this study, we will need to provide you with MRI-compatible glasses. Can you provide your acuity score for each eye?

Are you color blind?

Have you had any neurological trauma? (e.g. concussions, loss of consciousness)

Do you have any brain imaging abnormalities that you know of?

Do you have any neurological disorders? (e.g. seizures, MS, Parkinson's)

Are you taking any medications?

What is the nature of the medication?

I am going to read a list of diagnoses and at the end of the list I will ask if you have been treated for any of the following in the past two years. You do not need to tell me the specific diagnosis:

Schizophrenia

Depression

Anxiety

Bi-Polar Disorder

Attention Deficit Disorder

ADHD

Autism

Sleep Apnea

Narcolepsy

Memory problems

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If subject is found to be ineligible:

Thank you very much for your time. Unfortunately, there are some conditions for participation in the study that prevent us from including you. Thank you very much for your time and interest in our research.

If subject is found to be eligible:

Move on to discussing the MRI screening form with them to make sure that they don't have any contraindications for MRI.

If subject passes both the phone and MRI screens:

We have only a limited number of sessions where the scanner is available. I'm going to go through them and you tell me if one of them works for you.

Ok, so that's it. I'm going to send you a confirmation email with the date(s) and directions. On the day of your scan, we will meet you at the East Imaging Building. You can wait for us in front of the building or in the entry hallway and we will come to walk you to the scanner room a few minutes before the beginning of the session. You don't have to prepare anything for the fMRI session, **just be there on time**. After we go through all of the paperwork and are ready to get started, we'll have you change clothes into scrubs provided by the medical school in accordance with their safety requirements. There is a locker where you can put your personal belongings.

In addition to metallic objects, there are two other main things to know about fMRI. The **first** is that it is very sensitive to movement, so onc eyou're in the scanner and the study has started we'll ask you to stay as still as possible. Even moving a few millimeters can impare the quality of the data we're collecting, so it will be very important to not move in the scanner. The **second** thing is that the scanner is very noisy. You'll be wearing hearing protection and between the scans we will be able to talk to you with microphones, but during the scans we will not be able to speak with you directly.

Do you have any questions? If there's anything before the [date of the scanning session], you can contact us by email at complexmemlab@wustl.edu or by phone at 314-935-0212.

Thank you very much, have a good day and see you on [date of the scanning session].