

Sensorimotor Integration During Posture and Movement

CONSENT FORM

Cooperative Motor Learning in Virtual Environments

Visuomotor Learning Laboratory, PEBE 169

School of Biological and Health Systems Engineering, Arizona State University

You are being asked to read the following material to ensure that you are informed of the nature of this research study and how you will participate in it, if you consent to do so. Signing this form will indicate that you have been so informed and that you have given your consent. Federal regulations require written informed consent prior to participation in this research study so that you can know the nature and risks of your participation and can decide to participate or not to participate in a free and informed manner.

INTRODUCTION

The purposes of this form are to provide you (as a prospective research study participant) information that may affect your decision as to whether or not to participate in this research and to record the consent of those who agree to be involved in the study.

RESEARCHERS

Christopher Buneo, Associate Professor in the School of Biological and Health Systems Engineering, along with his research student Ankit Agrawal have invited you to participate in a research study.

STUDY PURPOSE

Several studies have been conducted exploring how motor skills are learned and maintained by the brain. However, none of these studies have explored the extent to which two subjects can learn to simultaneously control the same device. You are being invited to participate in a study to examine the cooperative motor learning in a virtual environment. The information gained in this experiment will allow us to better understand how humans learn to participate in jointly performed motor tasks.

DESCRIPTION OF RESEARCH STUDY

If you decide to participate, you will join a study designed to determine how two subjects work together to perform the same motor task. During a trial you will be comfortably seated in a chair facing a computer monitor. A camera-based motion tracking system will be used to monitor the motion of your arm, which will be viewed on the computer monitor as a small sphere. On all trials the idea will be to move the small sphere from the center of the visual display to one of several other target spheres. Importantly, motion of the 'arm' sphere will depend not only on your own movements, but also on the movements of another subject that you will be unable to see but who will be attempting to perform the same task at the same time. You will be allowed up to 15 minutes to get accustomed to the task. Following these practice trials the experiment will commence and will last no longer than 2 hours.

If you say YES, then your participation will last for no longer than 2 hours per experimental session up to three experimental sessions in room 169 of Physical Education Building East (PEBE) on Arizona State University's Tempe Campus Location.

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By signing below you certify that you are between 18 and 65 years of age and are generally healthy. You also certify that you have NO history of neurological disease.

RISKS

As with any research, there is some possibility that you may be subject to risks that have not yet been identified, though the researchers have significant experience using these techniques and the chances they have not seen these risks are extremely small.

BENEFITS

This study will be of no direct benefit to you. There are possible future benefits to the understanding of the brain and how it integrates sensory information to enable rapid changes in movement plans. These include better rehabilitation protocols and prosthetic systems for individuals with nervous system damage.

NEW INFORMATION

If the researchers find new information during the study that would reasonably change your decision about participating, then they will provide this information to you.

CONFIDENTIALITY

All information obtained in this study is strictly confidential unless disclosure is required by law. The results of this research study may be used in reports, presentations, and publications, but the researchers will not identify you. In order to maintain confidentiality of your records, Christopher Buneo and Ankit Agrawal will be assigning a subject code and my identity will be known only by the principal investigator (Buneo) and those individuals who work in his laboratory. Christopher Buneo alone will control access to the results when they are published and afterwards.

WITHDRAWAL PRIVILEGE

It is ok for you to say no. Even if you say yes now, you are free to say no later, and withdraw from this study at any time. Your decision will not affect your relationship with Arizona State University or otherwise cause a loss of benefits to which you might otherwise be entitled. Participation in this study is completely voluntary; as such the investigators collecting data understand that you may decide to withdraw from this study, at any time, for any reason and such a withdrawal will have **NO** consequences to your grades, treatment, employment status, or other relationship with the investigators or Arizona State University.

COSTS AND PAYMENTS

There is no payment for your participation in the study.

COMPENSATION FOR ILLNESS AND INJURY

If you agree to participate in the study, then your consent does not waive any of your legal rights. However, no funds have been set aside to compensate you in the event of injury.

VOLUNTARY CONSENT

Any questions you have concerning the research study or your participation in the study, before or after your consent, will be answered by Josh Klein in person or can be answered by him via email

