## Cognitive Battery - Continuous Recognition

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# Purpose

This protocol contains procedures for using the Continuous Recognition task in the Cognitive Battery.

Continuous Recognition is set up to test models of memory for the accuracy of judgements of whether a stimulus has been encountered in the past based on how long ago such stimulus was encountered. It is designed to access both working and long-term memory, as well as decision-making and perceptual processing speed. Depending on the image set used, the task can also access inhibitory control based on task demands (for example, if stimuli contain semantic or categorical relations but the subject's task does not involve attending to these dimensions).

On each trial, the subject is presented with an image of an object. The subject's task is to indicate, quickly and accurately, whether they have seen the image before, by pressing the interface (keys or screen) left for yes and right for no.

Each image is presented twice within the session, with a delay between the first and second presentation varying from 1 (the image is presented twice in succession) and 5 (there are 4 other images shown in between the first and second presentation). Accuracy of the response is expected to be greater when the delay is small.

Data saved out from the task includes responses, correct/incorrect info, image info, and reaction time data.

# Terminology

* The [**Cognitive Battery (or CogBat)**](https://osf.io/8mdfy/wiki/home/) is a set of computerized tasks for the Android operating system, running on the [SMILE experiment-writing library for Python](http://smile-docs.readthedocs.io/en/latest/).
* **The Cognitive Battery Continuous Recognition task** is a task within the CogBat.

# Required credentials/training

No special qualifications required.

# Required equipment and supplies

* Android phone or tablet set up with the [Cognitive Battery app](https://osf.io/g7e3x/).

# Methods and procedures

## Setting up the subject.

Open the CogBat and enter the subject ID at the appropriate screen. Select the Continuous Recognition task from the task-selection menu.

Review the on-screen instructions with the subject and ask if they have any questions.

# Revisions

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| **SOP Revision #** | **Date** | **Description of change(s)** |
| 170919 | 09/19/2017 | First version |
| 171003 | 10/03/2017 | Added links to other CogBat protocols |
| 171009 | 10/09/2017 | Updates to task rationale |