

# The Healthy Brain Network Serial Scanning Initiative, Sessions 2-7 and 9-14 Version 2

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## Abstract

This protocol describes MRI, voice recoding, and some basic physiological measurements and questionnaires for Sessions 2-7 and 9-14 of the following work:

David O'Connor, et. al. (2017) The Healthy Brain Network Serial Scanning Initiative. *GigaScience*...

**Citation:** David O'Connor, Natan Vega Potler, Meagan Kovacs, Ting Xu, Lei Ai, John Pellman, Tamara Vanderwal, Lucas Parra, Samantha Cohen, Satrajit Ghosh, Jasmine Escalera, Natalie Grant-Villegas, Yael Osman, Anastasia Bui, R Cameron Craddock, Michael P Milham The Healthy Brain Network Serial Scanning Initiative, Sessions 2-7 and 9-14. **protocols.io** dx.doi.org/10.17504/protocols.io.gxubxnw

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## Before start

Participant offered use of restroom, pregnancy test administered to female participants on V14 if they are of childbearing age, and consent is acquired

## Protocol

### Pre-Scan

#### Step 1.

Internal State Questionnaire - 3-item self-report questionnaire assessing hunger and thirst. Participants respond on a visual analogue scale ranging from "I am not hungry/thirsty/full at all" to "I have never been more hungry/thirsty/full". Responses are rated from 0-100. Participants complete this questionnaire before and after each scan.

#### 📌 NOTES

**David O'Connor** 11 Jan 2017

**Before Start:** Participant offered use of restroom, pregnancy test administered to female participants on V14 if they are of childbearing age, and consent is acquired

### Pre-Scan

## Step 2.

Blood collected with capillary stick, blood pressure recorded, blood glucose recorded, pulse recorded

### + NOTES

**David O'Connor** 11 Jan 2017

DUA required for this data

## Pre-Scan

### Step 3.

Audio samples of participant speech were recorded prior to scanning. Each sample consisted of 10 sentences with 5 different implicit emotions (neutral, happy, sad, angry, fearful), 10 non-words, and 2 minutes of free speech. For each sample different sentences were drawn from the same set of emotions; the non-words also differed in each sample but had similar characteristics (ie number of syllables, chunks). Stimuli were presented on a laptop computer screen. Completion of the sample took up to 15 minutes.

### + NOTES

**David O'Connor** 11 Jan 2017

Not Shared, pending appropriate de-identification procedure

## Pre-Scan

### Step 4.

First day of last period recorded for females

### + NOTES

**David O'Connor** 11 Jan 2017

DUA required for this data

## Pre-Scan

### Step 5.

Participant is scanned for magnetic materials, asked to change into scrubs if necessary, and enters the MRI machine

## Scan

### Step 6.

Localizer

### + NOTES

**David O'Connor** 11 Jan 2017

Not Shared, calibration only

## Scan

### Step 7.

Head Motion training - participant is scanned using an fmri sequence, and presented with visual feedback based on the amount their head moves.

### + NOTES

**David O'Connor** 11 Jan 2017

Not Shared, for training purposes only

Scan

### Step 8.

Localizer

📌 NOTES

**David O'Connor** 11 Jan 2017

Not Shared, calibration only

Scan

### Step 9.

Resting State - stimuli and scan protocol shared online  
([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

### Step 10.

Insapes - stimuli and scan protocol shared online  
([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

### Step 11.

Movie Segment - stimuli specified but not shared online and scan protocol shared online  
([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

### Step 12.

Flanker - stimuli and scan protocol shared online  
([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

### Step 13.

HCP Task - participant was scanned with fmri sequence while performing one of seven tasks used in the Human Connectome project  
(<http://www.humanconnectome.org/documentation/Q1/task-fMRI-protocol-details.html>)

📌 NOTES

**David O'Connor** 11 Jan 2017

Not Shared, data is not complete

Scan

## Step 14.

Story Corps - participant was scanned with fmri sequence, while watching and/or listening to anecdotal short stories from story corps (<https://storycorps.org/>)

### 📌 NOTES

**David O'Connor** 11 Jan 2017

Not Shared, in process of organizing, will be shared at a later date

Scan

## Step 15.

B0 field map

Scan

## Step 16.

T1 weighted Multiecho MPRAGE - scan protocol shared online ([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

## Step 17.

DWI- scan protocol shared online ([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

## Step 18.

DKI- scan protocol shared online ([http://fcon\\_1000.projects.nitrc.org/indi/hbn\\_ssi/index.html](http://fcon_1000.projects.nitrc.org/indi/hbn_ssi/index.html))

Scan

## Step 19.

MSIT/Visual Audio Motor Tasks/Breath Hold Multiband fMRI Sequence - participants performed one of; the Multi Source Interference Task, Visual Checkerboard - Audio Beep - Fingertapping task, or a breath holding task while being scanned with a multiband fmri sequence

### 📌 NOTES

**David O'Connor** 11 Jan 2017

Not Shared, data is not complete

Post-Scan

## Step 20.

Removed from Scanner

Post-Scan

## Step 21.

Internal State Questionnaire - 3-item self-report questionnaire assessing hunger and thirst. Participants respond on a visual analogue scale ranging from "I am not hungry/thirsty/full at all" to "I have never been more hungry/thirsty/full". Responses are rated from 0-100. Participants complete this questionnaire before and after each scan.

## Post-Scan

### Step 22.

New York Cognition Questionnaire - 31-item self-report questionnaire that asks participants about the different thoughts and feelings that they may have had while in the MRI scan. Participants are asked to indicate the extent to which their thinking or experience corresponded to each item on a 9-point scale.

## Post-Scan

### Step 23.

PANAS - The PANAS-S is a self-administered, 20-item Likert scale assessment that measures degree of positive or negative affect. Users are asked to rate 10 adjectives that measure positive feelings such as joy or pleasure, and 10 adjectives that measure negative feelings, such as anxiety or sadness, on a scale of how closely the adjective describes them in the present moment or over the past week. Items are rated on a five-point scale.

#### [NOTES](#)

**David O'Connor** 11 Jan 2017

DUA required for this data

## Post-Scan

### Step 24.

Quotient (on V9 only) - Quotient is a computer based task designed to assess three core symptoms of ADHD: hyperactivity, attention and impulsivity. Participants respond to stimuli presented with random timing and random placement on a screen. Completion of the task takes up to 30 minutes.

#### [NOTES](#)

**David O'Connor** 11 Jan 2017

DUA required for this data