U01\_Expt6\_ANNsentSET1: Listening to sentences

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<https://github.com/Brain-Modulation-Lab/Task_MIT_Fedorenko>

## Required Hardware:

* Presentation monitor
* Keyboard for participant
* Speaker
* Photoresistor clip
* Tascam microphone

**Brief Description (for the experimenters)**

Participants will hear sentences spoken aloud. The participant must press the spacebar to hear the next sentence.

There are 4 separate lists that need to be run once each. There are 56 spoken sentences in each list.

With quick presses of the spacebar:

list 1 is ~3min45sec

list 2 is ~3min30sec

list 3 is ~3min40sec

list 4 is ~3min55sec

It will take at least 16 min to run all four lists once. The lists do not need to be consecutive and they can be interwoven into other tasks. The order of presentation should be list 1,2,3,4.

## How to run the task:

1. Verify Neural Signal Processors are recording.
2. Set the presentation monitor for visual task.
3. Attach the photoresistor clip to the top left corner of the presentation monitor.
4. Make sure photoresistor is connected to Natus DC-3 channel
5. The keyboard should be accessible to the participant.
6. Set the audio speaker in front of the participant.
7. Set the TASCAM microphone close to audio speaker in ambient sound configuration.
8. Make sure TASCAM output is connected to Natus DC-4 and to presentation computer.
9. Open Desktop\MIT\Task\_MIT\_Fedorenko\ U01\_Expt6\_ANNsentSET1\START\_ ANNsentSET1\_EMU.m in Matlab and click RUN on the “Editor” tab in the toolbar or press F5. The following dialog box will appear:

Graphical user interface

Description automatically generated

* + Subject: enter the Subject ID (e.g. ‘MG001’)
  + Session: enter session type. For the experiment in the EMU enter ‘EMU’. If testing the task enter ‘test’.
  + Run: Enter run id (possible options in parenthesis)
  1. Click OK
  2. A concise task instruction will appear on screen. Remind task instructions to participant if deemed necessary.

"Listen attentively to the sentences. Press the spacebar to hear the next sentence.'"

* 1. Press the SPACE key to start the experiment.

1. Go to step ‘5’ and repeat for runs 2-4.
2. Download the log files from Desktop\MIT\Data\_ANN

If something happens in the middle of a run, you can just leave the task running since it won’t continue without the spacebar press. The participant can resume normally when it is possible. If this happens, please make a note.

**Problems**

If the task has to be exited for some reason, you can press the escape button and all data will be saved. To resume the same list, just enter the same command and you will be prompted to either resume (press 1) or restart (press 2) that list. Then press enter and the task will resume. Make a note if this happens.

**Subject Instructions**

* In this task, you will listen to sentences. Please listen attentively. Press the spacebar between each sentence to hear the next one. The task will not continue unless you press the spacebar. Take a break anytime and resume the task by pressing the spacebar.