1. **Single Subject epoch (block) auditory fMRI activation data**

The experiment was conducted by Geraint Rees under the direction of Karl Friston and the FIL methods group. The purpose was to explore equipment and techniques in the early days of  fMRI experience. As such it has not been formally written up, and is freely available for personal education and evaluation purposes.

96 acquisitions were made (RT=7s), in blocks of 6, giving 16 42s blocks. The condition for successive blocks alternated between rest and auditory stimulation, starting with rest. Auditory stimulation was with bi-syllabic words presented binaurally at a rate of 60 per minute. The functional data starts at acquisiton 4, image fM00223\_004. Due to T1 effects it is advisable to discard the first few scans (there were no "dummy" lead-in scans).

These whole brain BOLD/EPI images were acquired on a modified 2T Siemens MAGNETOM Vision system. Each acquisition consisted of 64 contiguous slices (64x64x64 3mm x 3mm x 3mm voxels). Acquisition took 6.05s, with the scan to scan repeat time (RT) set arbitrarily to 7s.

**Link (from where data set was taken):**

<https://www.fil.ion.ucl.ac.uk/spm/data/>

* Data is better explained in README\_analysis file.

1. **Balloon Analog Risk Taking Task**

The BART is a computerized decision making task that is used to assess risk-taking behavior. On each trial of the task, participant pump a simulated balloon without knowing when it will explode. Each pump increases the potential reward to be gained but also the probability of explosion, which wipes out all potential gains for that trial.

The Balloon Analog Risk Task (BART, Lejuez et al., 2002) captures the escalating tension, which is often inherent to naturalistic risk-taking, and has also been found to predict several naturalistic risk-taking behaviors. In BART, participants sequentially pump puffs of air into a balloon depicted on a computer screen. On each trial a participant earns a fixed amount of money for each successful pump (i.e., that expands, but does not break the balloon) but loses the accumulated amount if the balloon explodes before the participants stops pumping the balloon and cashes out. Subjects are unaware of the explosion probability of the balloon and thus the decision to pump or cash-out is made under uncertainty. (Paragraph is taken from the article of reference to explain the task, how the authors used it)

16 Participants performed the task in an event-related design. Data is curated and the latest version was downloaded and uploaded.

**Link to the article and data source:**

<https://openfmri.org/media/ds000001/fnins-06-00080_rdvvfRQ.pdf>

<https://openfmri.org/dataset/ds000001/>

1. **Rhyme Judgment**

In the Rhyme Judgment task, subjects were presented with pairs of either words or pseudo words, and were asked to make a judgment about whether the pair of words rhyme with one another or not.

Data was obtained from 13 participants, both male and female, the age ranges from 18 to 38. Total trials were 64, half for the words and half for the pseudo words.

**Links to data and the reference article:**

<https://openfmri.org/dataset/ds000003/>

<https://direct.mit.edu/jocn/article-abstract/13/5/687/3570/Relations-between-the-Neural-Bases-of-Dynamic?redirectedFrom=fulltext>

1. **BOLD 5000**

Chang, N., Pyles, J. A., Marcus, A., et al. (2019) presented BOLD5000, a human functional MRI (fMRI) study that includes almost 5,000 distinct images depicting real-world scenes. Beyond dramatically increasing image dataset size relative to prior fMRI studies, BOLD5000 also accounts for image diversity, overlapping with standard computer vision datasets by incorporating images from the Scene UNderstanding (SUN), Common Objects in Context (COCO), and ImageNet datasets. The scale and diversity of these image datasets, combined with a slow event-related fMRI design, enables fine-grained exploration into the neural representation of a wide range of visual features, categories, and semantics.

Sorry for the inconvenience, but I could not fully understand the article and was unable to download the data for this study (my laptop got so much slow so I cancelled the download process). I am here mentioning both the data site and the article site as well. Or I will again try to do it tomorrow or on Monday.

**Links:**

[**https://www.nature.com/articles/s41597-019-0052-3**](https://www.nature.com/articles/s41597-019-0052-3)

[**https://openneuro.org/datasets/ds001499/versions/1.3.0**](https://openneuro.org/datasets/ds001499/versions/1.3.0)