

## **DESCRIPTION OF SUPPLEMENTARY FILES**

### **SUPPLEMENTARY DATA 1**

Please note that given the extension of the NoGo vs. Go fMRI effects table, this has been provided as an independent supplementary file named Supplementary Data 1 in xlsx format. Supplementary Dataset 1 is related to Supplementary Figure 2. It displays NoGo vs. Go fMRI effects. Data thresholded at  $P < 0.001$  uncorrected. \*FWE-corrected for the whole brain cluster level  $P < 0.05$ . Activations at peak level with more than 5 voxels cluster. BA: Brodmann area (Excel format).

### **SUPPLEMENTARY DATA 2**

A “Participant Database” is provided as a supplementary data named Supplementary Data 2.xlsx. In this spreadsheet we provide the most relevant behavioral results per every subject that participate in each of the 8 experiments (Exp 1 to 7 and 7 Replication) we conducted for this paper. There is one sheet corresponding to each experiment.

For Exp 1-6 there are 9 columns named “Subjects”, “GoR”, “NoGoR”, “GoK”, “NoGoK”, “FAR”, “FAK”, “MeanRT GoR” and “MeanRT GoK”.

1. Subjects: indicating a subject identifier.
2. GoR: calculated as the percentage of correct number of old Go trials correctly pressed at encoding and indicated as remembered items at recognition.
3. GoK: calculated as the percentage of correct number of old Go trials correctly pressed at encoding and indicated as familiar items at recognition.
4. NoGoR: calculated as the percentage of correct number of old NoGo trials correctly non-pressed at encoding and indicated as remembered items at recognition.
5. NoGoK: calculated as the percentage of correct number of old NoGo trials correctly non-pressed at encoding and indicated as familiar items at recognition.
6. FAR: False alarms defined as new items presented at recognition phase identified as old.
7. FAK: False alarms defined as new items presented at recognition phase identified as familiar.

8. MeanRT GoR: average reaction time for GoR trials (see definition 2. above).
9. MeanRT GoK: average reaction time for GoK trials (see definition 3. above).

For experiments 7 and 7 Replication please note definitions from 2 to 7 have been split into “Neu” and “Emo” referring to neutral and emotional trials respectively.

In each data sheet a legend with reasons why certain subjects were excluded is provided according with the established exclusion criteria (see Methods). The corresponding rows for each excluded subject is font colored accordingly.