Neuroimaging Analysis Replication and Prediction Study (NARPS) Instructions for signed-up analysis teams

In this project, we aim to provide the first scientific evidence on the magnitude of variability of results across analysis teams in neuroimaging.

We are glad you joined us in this fascinating project!

In order to complete your registration to the project, each member of the analysis team must sign the [NARPS consent form](#).

Once all members of the analysis team signed the consent form and officially joined our project, we will provide you with access to the raw data (as well as data preprocessed with fmriprep, if you wish to use them) via [Globus data transfer service](#), based on the ORCID and the email associated with the ORCID of the team representative, that you will provide us on the consent form. Instructions on obtaining the data from Globus will be sent to you. We will also provide a unique key to be used as your team ID.

We kindly remind you that as stated on the consent form, sharing of data and/or results or discussing outcomes from the analyses with any person outside your signed analysis team during the embargo period is strictly forbidden, and might compromise the prediction markets!

For more information about the data (e.g. imaging protocol used, task, participants, etc.) and the project, please see [NARPS website](#).

We ask you to freely analyze the data using your standard analysis techniques, as you would for a paper, in order to test the following nine ex ante hypotheses:

Parametric effect of gain:
1. Positive effect in ventromedial PFC - for the equal indifference group
2. Positive effect in ventromedial PFC - for the equal range group
3. Positive effect in ventral striatum - for the equal indifference group
4. Positive effect in ventral striatum - for the equal range group

Parametric effect of loss:
5. Negative effect in VMPFC - for the equal indifference group
6. Negative effect in VMPFC - for the equal range group
7. Positive effect in amygdala - for the equal indifference group
8. Positive effect in amygdala - for the equal range group

Equal range vs. equal indifference:
9. Greater positive response to losses in amygdala for equal range condition vs. equal indifference condition.

(Equal indifference group- participants with odd numbers, e.g. sub001, sub003, sub005, etc. Equal range group- participants with even numbers, e.g. sub002, sub004, sub006, etc.)

Following your analysis, we ask you to submit:
- A *binary* decision regarding each hypothesis tested, based on whole-brain corrected analysis (yes/no).
- A whole-brain *unthresholded* statistical (z or t) map for the contrast at the group level.
- A whole-brain *thresholded* statistical (z or t) map for the contrast at the group level.
- **Optional**: Contrast maps and associated variance maps for individual participants, if available (e.g. cope/varcope in FSL).

Maps should be uploaded to [NeuroVault](#). Please open a new **private collection**, and name it 'NARPS – XXXX' with the XXXX replaced with your team ID.

Then, upload each thresholded map with the following name: 'hypoX_thresh' (e.g. 'hypo1_thresh' for the whole-brain thresholded group level statistical map of the contrast relevant to hypothesis 1 as listed above) and each unthresholded statistical map with the following name: 'hypoX_unthresh' (e.g. 'hypo1_unthresh' for the whole-brain unthresholded group level statistical map of the contrast relevant to hypothesis 1). If you can also upload the contrasts and associated variance maps (optional), please name them accordingly, e.g. 'hypo1_cope' and 'hypo1_varcope'.

We will also send you a report form and will ask you to report your binary decisions and the analysis pipeline you used, based on the [COBIDAS report guidelines.](#) Please describe your analysis in this form as thoroughly as possible.

Members of each analysis team (up to three members) that will submit their results and report by the deadline- **February 28th 2019**- will be offered co-authorship on the original paper.

If you have any questions, please don't hesitate to approach us!
narpsimaging@gmail.com

Looking forward to working with you and explore together the variability of results for the same hypotheses and data, across analysis pipelines!

The NARPS team