# How does right hemisphere functioning affect language ability after left hemisphere disruption? A Personalized Perspective

## Application DMP

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### Questionnaire

**The questions in this section should only be answered if you are currently applying for FWO funding.**
**Are you preparing an application for funding?**

- No

# How does right hemisphere functioning affect language ability after left hemisphere disruption? A Personalized Perspective

## FWO DMP (Flemish Standard DMP)

### 1. Research Data Summary

**List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.**

| | | | | Only for digital data | Only for digital data | Only for digital data | Only for physical data |
|---|---|---|---|---|---|---|---|
| Dataset Name | Description | New or reused | Digital or Physical | Digital Data Type | Digital Data format | Digital data volume (MB/GB/TB) | Physical volume |
| AphasiaBehavioral | emographic information, neuropsychological performance, and information about the timing and location of TMS pulses of the aphasia study. | Generate new data | Digital | Observational | .csv | < 1GB | |
| AphasiaMRI | MRI data of the aphasia study | Generate new data | Digital | Experimental | .dcm | <1TB | |
| MPI-MRI | MRI data of the study reusing data from the MPI. | Reused | Digital | Experimental | .nii | <5TB | |
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| | | | | | | | |

**If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:**

Data from Bergmann, T. O. & Hartwigsen, G. (2021). J. Cogn. Neurosci. 33, 195–225, as well as project FLEXBRAIN (data collection currently still in progress).

**Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? Describe these issues in the comment section. Please refer to specific datasets or data types when appropriate.**

- Yes, human subject data

The aphasia study of this project involves the processing of sensitive identifiable personal data.

**Will you process personal data? If so, briefly describe the kind of personal data you will use in the comment section. Please refer to specific datasets or data types when appropriate.**

- Yes

Yes, for the aphasia study. These include contact details of the participants used for practical reasons (e.g.: to schedule test sessions) and medical data to assess study eligibility. In addition, medical imaging data (MRI of the head) will be collected.

**Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.**

- No

**Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material/Data transfer agreements/ research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.**

- No

**Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.**

- No

## 2. Documentation and Metadata

**Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in the future (e.g., in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, Codebook.tsv etc. where this information is recorded).**

Text files/csv files will supported by codebooks. MRI data will be stored in BIDS format (see below), which includes standardized ways of storing imaging meta-data. Scripts will be carefully annotated.

**Will a metadata standard be used to make it easier to find and reuse the data? If so, please specify (where appropriate per dataset or data type) which metadata standard will be used. If not, please specify (where appropriate per dataset or data type) which metadata will be created to make the data easier to find and reuse.**

- Yes

MRI data, behavioral data and accompanying meta-data will be organized according to the standardized BIDS format.

## 3. Data storage & back-up during the research project

**Where will the data be stored?**

All newly collected data will be digitized and stored on the KU Leuven Archive Drive.

**How will the data be backed up?**

The data stored on the KU Leuven Archive Drive is managed and routinely backed up by KU Leuven's IT office.

**Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely.**
**If no or insufficient storage or backup capacities are available, then explain how this will be taken care of.**

- Yes

**How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?**

Only I or researchers collaborating on this project will be granted access rights to the data stored on the KU Leuven Archive Dstrive.

**What are the expected costs for data storage and backup during the research project? How will these costs be covered?**

The costs are covered centrally by KU Leuven.

### 4. Data preservation after the end of the research project

**Which data will be retained for at least five years (or longer, in agreement with other retention policies that are applicable) after the end of the project? In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).**

All data data stored on the KU Leuven Archive Drive will be kept there for 10 years as per the data perservation policy of KU Leuven.

**Where will these data be archived (stored and curated for the long-term)?**

The KU Leuven Archive Drive.

**What are the expected costs for data preservation during the expected retention period? How will these costs be covered?**

Costs will be covered by the KU Leuven

### 5. Data sharing and reuse

**Will the data (or part of the data) be made available for reuse after/during the project? In the comment section please explain per dataset or data type which data will be made available.**

- Yes, in an Open Access repository

Anonymized research data will be made findable and accessible after publication by deposition in OSF under a CC0 license, which grants public access with unrestricted reuse. Meta-data documenting data provenance and research protocols will be made publicly available alongside experiment and analysis code.

**If access is restricted, please specify who will be able to access the data and under what conditions.**

NA

**Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)? Please explain in the comment section per dataset or data type where appropriate.**

- Yes, Privacy aspects

Raw anatomy MRI data cannot be shared publicly as this can be used to identify the data subject.

**Where will the data be made available? If already known, please provide a repository per dataset or data type.**

Open Science Framework

**When will the data be made available?**

Upon acceptance of the associated publication.

**Which data usage licenses are you going to provide? If none, please explain why.**

A CC0 license, which grants public access with unrestricted reuse.

**Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, you have the option to provide it in the comment section.**

- Yes

**What are the expected costs for data sharing? How will these costs be covered?**

There are no expected costs associated with data sharing.

**6. Responsibilities**

**Who will manage data documentation and metadata during the research project?**

Robin Gerrits

**Who will manage data storage and backup during the research project?**

Robin Gerrits

**Who will manage data preservation and sharing?**

Robin Gerrits (data sharing) and KU Leuven (long time preservation after the project is done)

**Who will update and implement this DMP?**

Robin Gerrits