

# Lexical Production and Cognitive Control in Bilinguals

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Pending
<b>Health condition type</b>	-
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON27895

### Source

Nationaal Trial Register

### Brief title

LPCC in Bilinguals

### Health condition

Bilingual Lexical Production, Cognitive Control

## Sponsors and support

**Primary sponsor:** This research has received partial funding from Cognitive Psychology Unit of Leiden University, which just concerns financial compensation for participants.

**Source(s) of monetary or material Support:** This research has received partial funding from Cognitive Psychology Unit of Leiden University, which just concerns financial compensation for participants.

## Intervention

## Outcome measures

### Primary outcome

The main endpoints of the study are to delineate the way cognitive control contributes to absence of standard language effect and reversed language effect in bilinguals, when

producing L1 and L2 lexical items.

### **Secondary outcome**

- to define any differences in terms of the strength of functional connectivity in brain areas involved in cognitive control, between participants who show the reversed language effect more than the other group.
- to define how the perisylvian language network is different between participants who have a better performance in switching between first and second language lexical items than the ones with average performance in that regard.

## **Study description**

### **Background summary**

This research addresses the gap in the related state-of-the-art research, by investigating the way neural mechanisms function in bringing about reversed language effect, and absence of standard language effect in bilinguals, and the way cognitive control modulate such language behavior.

### **Study objective**

- In bringing about an absence of standard language effect in bilinguals, the neural mechanisms which differentiate L1 and L2 lexical productions will no longer be different from each other and the same neural underpinnings will be involved in L1 and L2 lexical productions.
- In bringing about reversed language effect in bilinguals, cognitive control has a facilitatory function over L2 and an inhibitory function over L1. Such a function is also hypothesized to underlie lexical production in the intended language and the inhibition of such a production in the unintended language.

### **Study design**

This experiment is expected to be completed in mid 2018.

### **Intervention**

Not applicable

## Contacts

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## Eligibility criteria

### **Inclusion criteria**

Participants will be healthy, volunteer, right-handed Dutch-English bilinguals, without any report and history of neurological or psychiatric problems and no counter-indications to MRI. Their age will not be more than thirty. In addition, in this study upper intermediate bilinguals will be included and the main criteria to assess this level of bilingualism will be a quick placement test published by Oxford University Press.

### **Exclusion criteria**

Left-handed volunteers, balanced bilinguals, bilinguals with less than upper intermediate proficiency in English language, the ones who are more than 30 years old, and have any report and history of neurological or psychiatric problems will be excluded from this study. Potential participants will be pre-screened for contraindications for fMRI, which include metal implants, heart arrhythmia, claustrophobia, and possible pregnancy (in females). They will additionally be pre-screened for head trauma, history of neurological or psychiatric illness and/or use of psychotropic medications. The ones with the positive results in pre-screen section will be excluded.

## Study design

### Design

Study type: Observational non invasive

Intervention model: Other

**Control:** N/A , unknown

### Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 03-01-2018

Enrollment: 50

Type: Anticipated

## Ethics review

Positive opinion

Date: 31-12-2017

Application type: First submission

## Study registrations

### Followed up by the following (possibly more current) registration

ID: 44342

Bron: ToetsingOnline

Titel:

### Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

**Register**

NTR-new

NTR-old

CCMO

OMON

**ID**

NL6728

NTR6939

NL61816.058.17

NL-OMON44342

## Study results

**Summary results**

N/A