Motivation
- Speech planning involves selecting the appropriate words from the mental lexicon.
- Bilinguals must select the appropriate word based on both the semantic information and language membership.
- Lexical competition within and across languages engages regulatory mechanisms such as monitoring and inhibitory control, but the nature of these mechanisms is not well understood.

The present study aims to investigate:
1. the conditions under which conflict is present during word retrieval
2. the type of regulation involved when bilinguals retrieve words for speech production

Experiment 1a & 1b

Experiment 1a
- Distractor types randomly presented
- Naming task: pictures preceded by distractor words
- Stimuli: 360 colored line drawings of objects
- Procedure: 180 pictures presented once
- 30 presented 6 times (once with each distractor type)

Experiment 1b
- Distractor types blocked (color, object)
- Object naming task in a task-switching paradigm

Participants
- **Experiment 1a**
  - 17 speakers in English (mean age = 19.4, SD 1.7)
  - 28 speakers in Spanish (mean age = 19.1, SD 1.1)
- **Experiment 1b**
  - 9 speakers in English (mean age = 19.6, SD 0.9)

Stimuli and Procedure
- **Pictures**: 360 colored line drawings of objects
- **Procedure**:
  - 180 pictures presented once
  - 30 presented 6 times (once with each distractor type)

Task Mismatch
- **Control**
  - XXXX
- **Object match**
  - kite
- **Semantically related**
  - yoyo
- **Semantically unrelated**
  - thigh
- **Color match**
  - yellow
- **Color mismatch**
  - green

Task Switching
- **Color**
  - XXXX
- **OBJECT**
  - XXXX

Experiment 2

Motivation
- Bilingual regulation may involve proactive and reactive control mechanisms to reduce interference across languages.
- **Proactive control** involves actively maintaining task goals and monitoring input and responses according to those goals.
- **Reactive control** involves identifying conflict in the input and modifying one’s response to reduce or resolve the conflict.
- Experiment 2 looks at how bilinguals and monolinguals engage proactive and reactive control during word retrieval.

Tasks
- **Naming task in a task-switching paradigm**
- **Non-verbal measure of cognitive control (AX Continuous Performance Task)**
- **Non-verbal measure of task switching (Color-shape task)**
- **Working memory task (Dot Counting)**
- **Language History Questionnaire**

Participants
- **25 Monolingual English speakers**
- **25 Bilingual speakers in English**

Design and Predictions
- **Task-switching paradigm**
  - Participants will be cued to name either the OBJECT or the COLOR
- **Hypotheses**
  - Bilinguals will be less affected by conflict than monolinguals, indicating that they readily engage cognitive control mechanisms.
  - Aspects of bilinguals’ language experience will correlate with performance, such as age of acquisition and daily language exposure.

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Contact

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Contact: evehigby@gmail.com

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