

Motivated social cognition in bilinguals: Towards a new theoretical framework and its empirical verification

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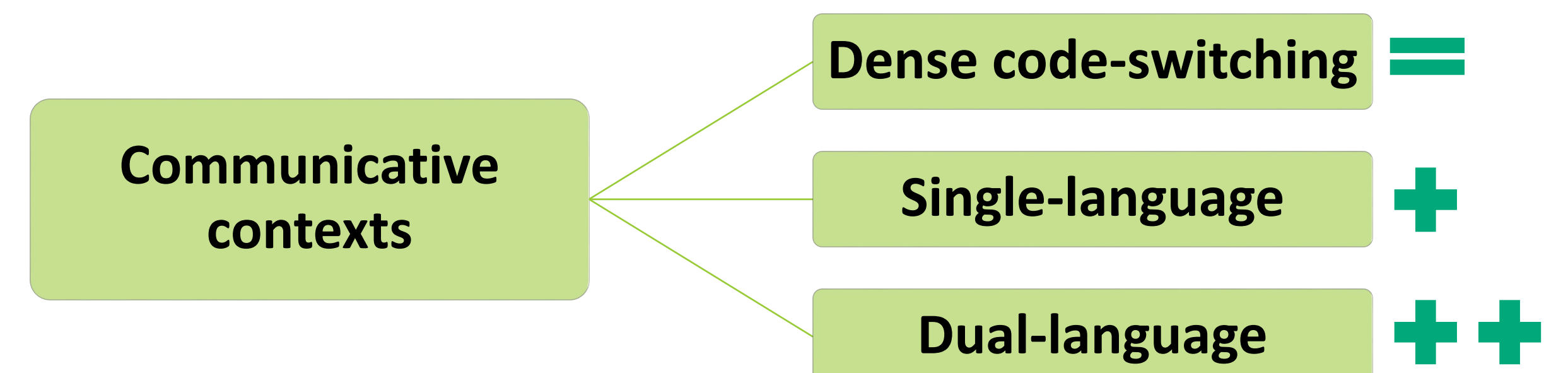
Research question:

How does bilingualism influence the processing of (social) information?

Background

Motivation and cognitive control:

- **Goal system theory** [1]: motivation as a system of interconnected goals and means.
- Motivation influences **engagement** and **performance** during cognitive control tasks [2].
- Motivation never considered before in studies on bilingual cognitive control.



Cognitive control in bilinguals:

Adaptive Control Hypothesis: Only certain contexts promote training of control processes in bilinguals [3].

Theoretical model

- “Cognitive potential” in bilinguals is triggered by goal-driven motivation.
- **Goals** trigger the cognitive potential during a control task.
- No goal-driven motivation would lead to null **differences** in performance between monolinguals and bilinguals.



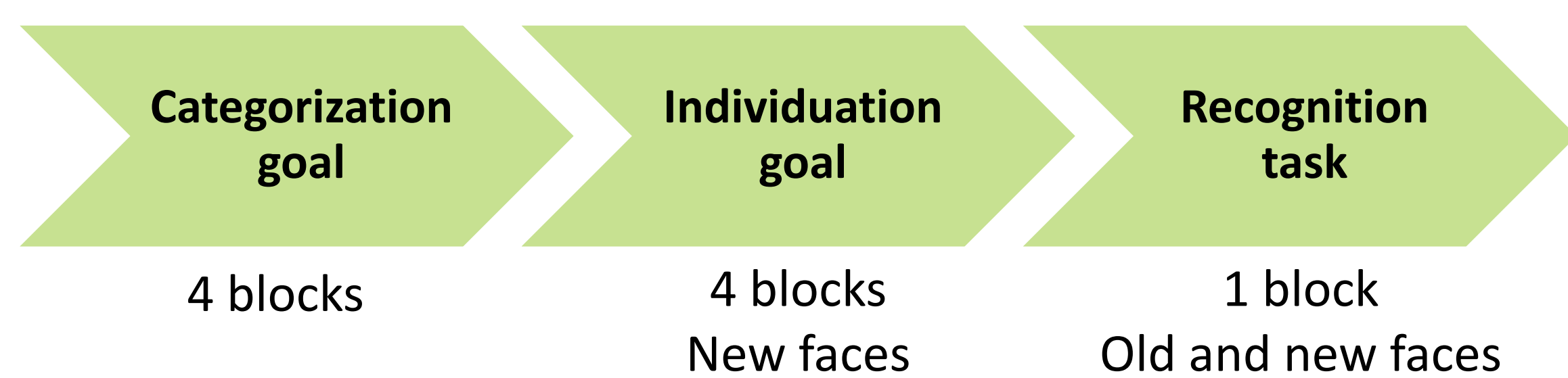
Model testing. Study 1

Research question:

How do bilinguals allocate cognitive control based on different goals?

Experimental design:

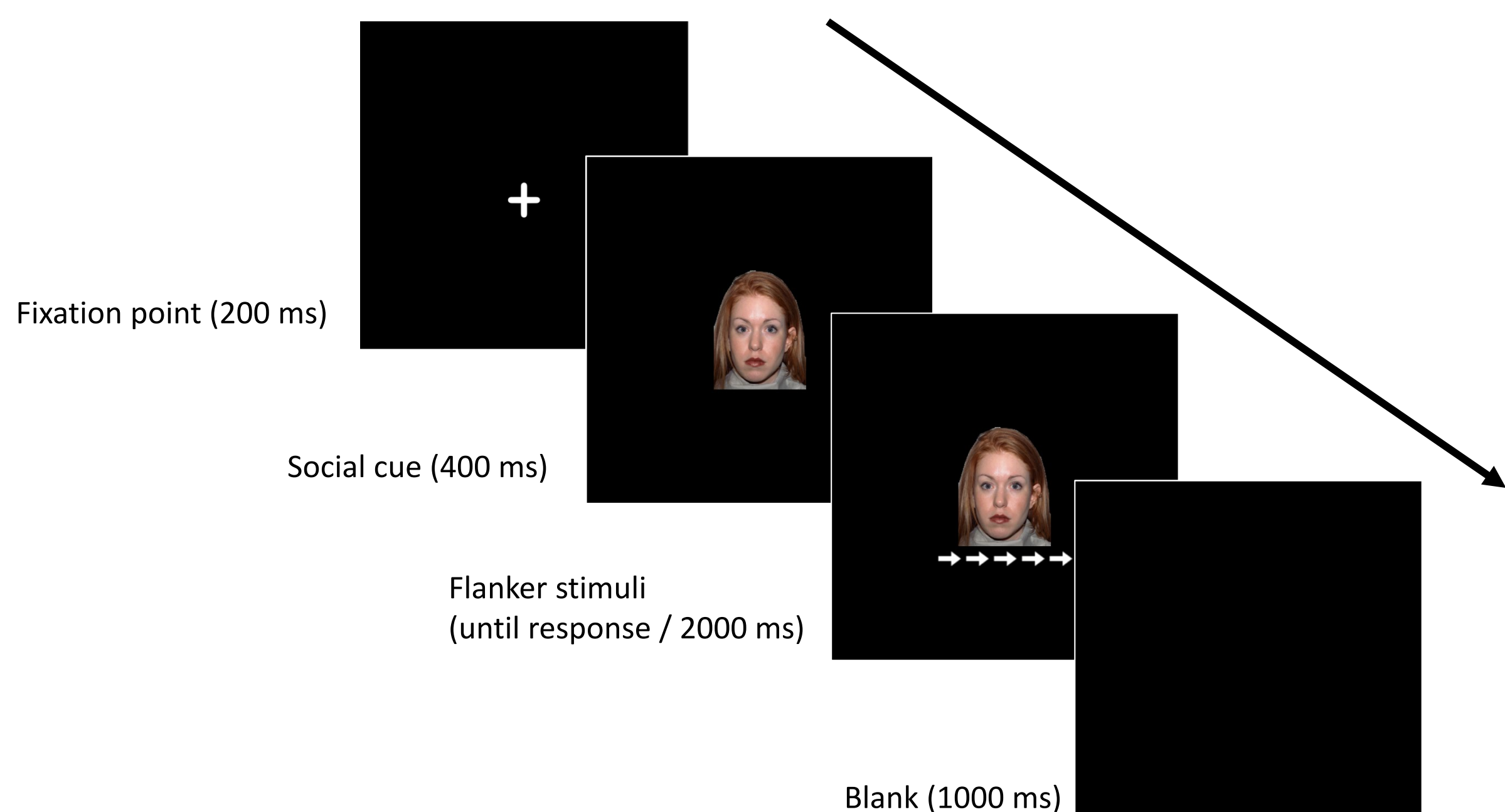
Modified flanker task with social stimuli as cues. Based on [4].



Participants:

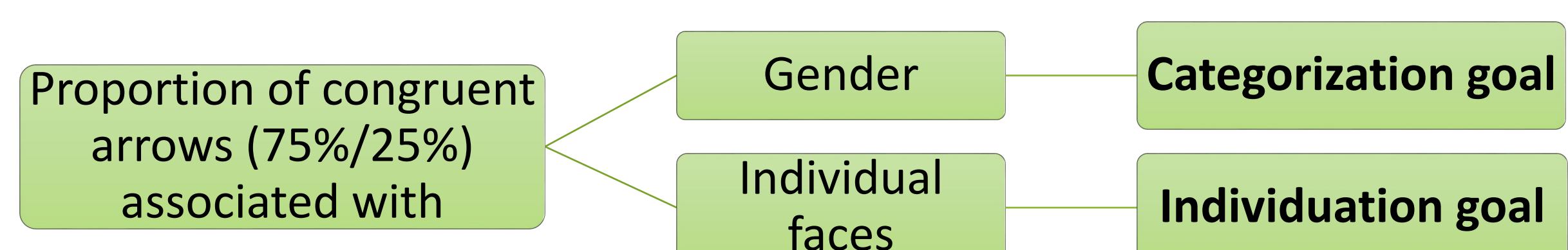
- Dual-language context bilinguals. Questionnaire recruitment [5].
- English monolinguals.

Example of an experimental trial:



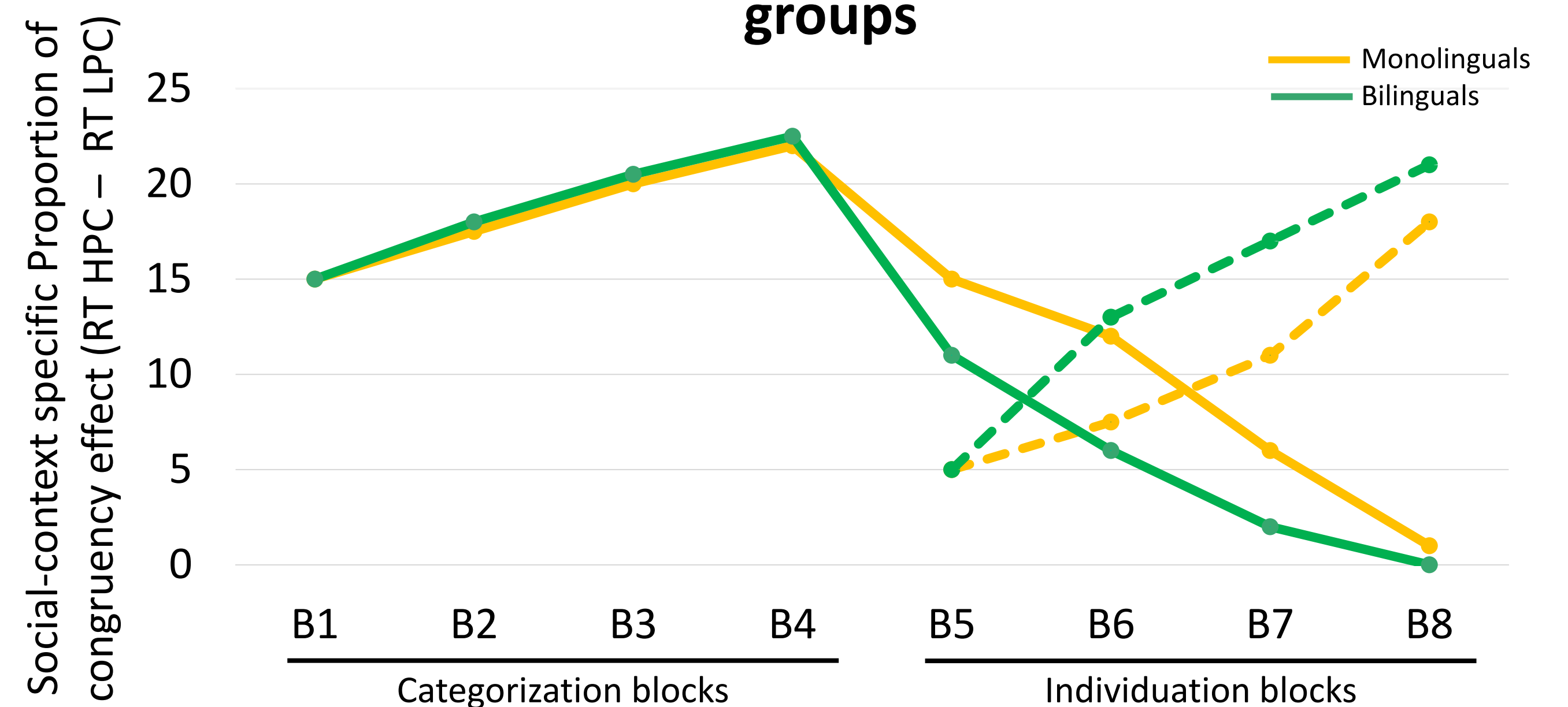
Measurements:

- **Attentional control:** Flanker performance, proportion of congruency manipulation (High proportion vs. Low proportion):
 - ✓ **Proportion of Congruency Effect:** Larger interference for trials associated with high proportion of congruent arrows.



- **Change of goals:** Categorization and individuation goals. Implicitly induced.

Predictions in performance between groups



If bilinguals switch more efficiently between goals:

- Faster reduction of category PCE after switching → goal disengagement
- Faster increase of individual PCE during individuation blocks → goal engagement

Summary

- **Theoretical proposal:** The cognitive potential in bilinguals due to contextual demands is triggered by goal-driven motivation.
- **Procedure:** Goal manipulation during a modified flanker task with social stimuli.
- **Predictions:** Greater ability in bilinguals to allocate of their attentional control and to switch between goals.

References

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- [4] Cañadas, E., Rodríguez-Bailón, R., Milliken, B., & Lupiáñez, J. (2013). Social categories as a context for the allocation of attentional control. *Journal of Experimental Psychology: General*, 142(3), 934.
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