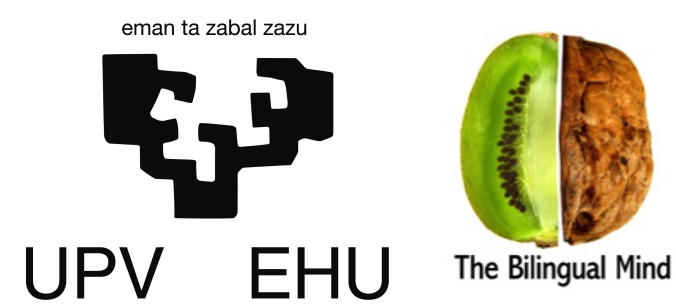


VO-OV yield imperfect mirror images: On the impact of length on word order



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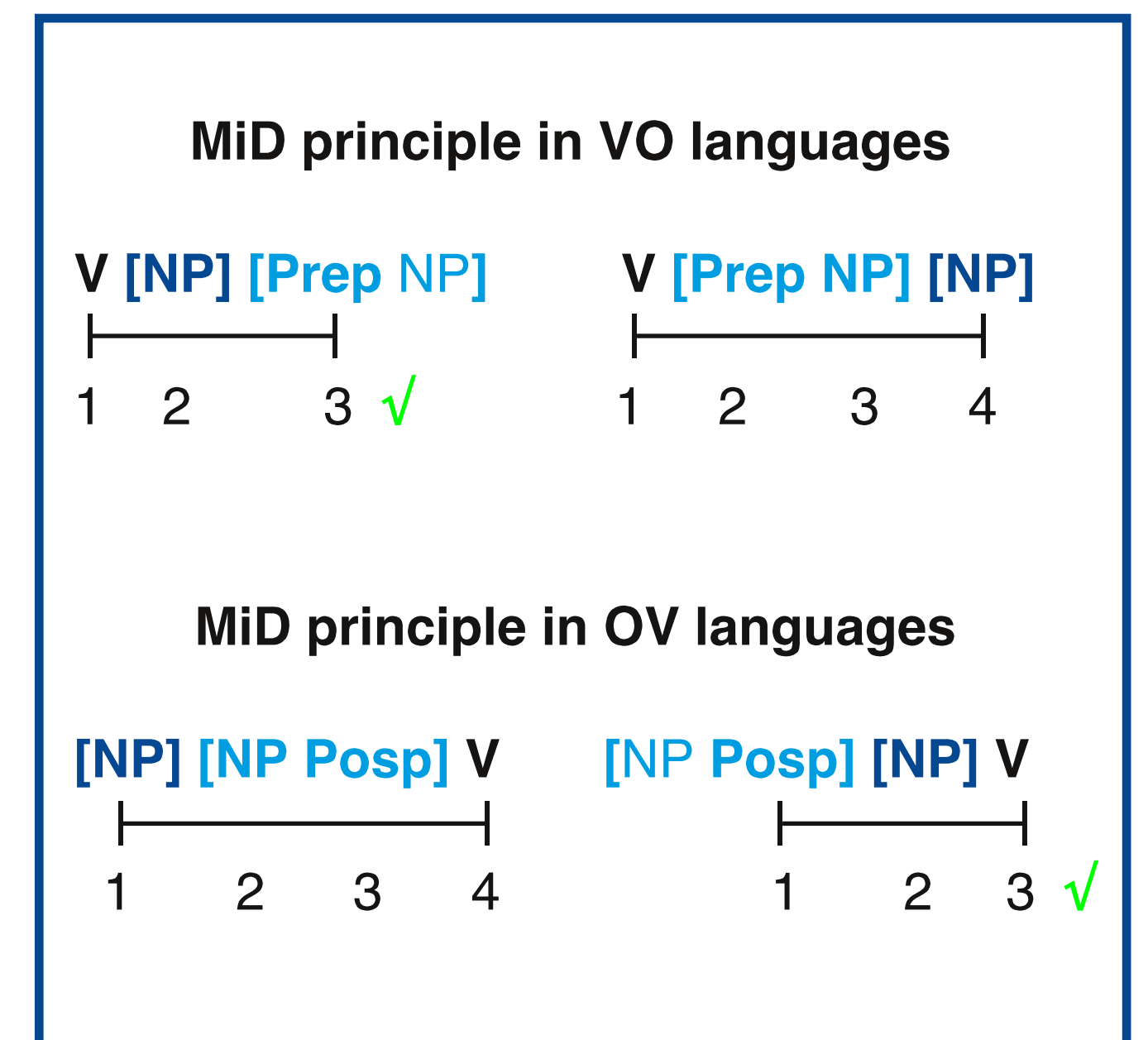


Introduction

EFFECT OF LENGTH ON VO AND OV LANGUAGES:

Does length affect word order differently in Spanish (VO) and Basque (OV)?

- Availability-based models predict a universal short-before-long preference [1, 2].
- Hawkins' MiD predicts a mirror-image effect, obtained for English (VO) and Japanese (OV) [2, 3, 4]:
 - VO languages will prefer short-before-long word orders.
 - OV languages will prefer long-before-short word orders.



MODULATION OF LENGTH EFFECT BY OTHER FACTORS:

Does degree of word order freedom have any impact on the effect of length?

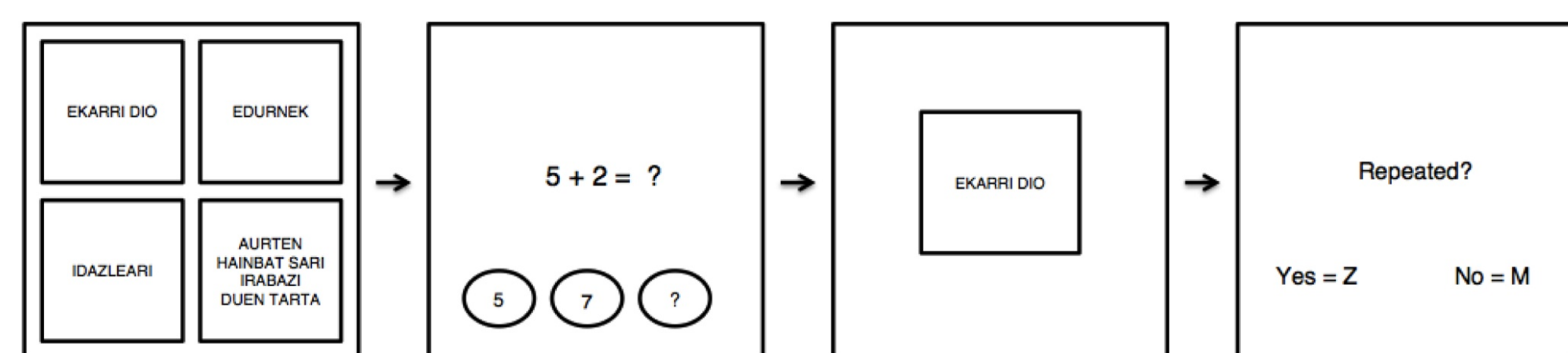
- Hawkins: minimizing distance between constituents is the main determinant of cross-linguistic word order variations.
- Competition Model [5]: the strength of processing cues such as word order depends on their availability in a given language.
 - Prediction: Languages where word order is not a reliable cue of syntactic structure will show a weaker effect of length.

Methods

PARTICIPANTS: 24 Basque and 18 Spanish native speakers

TASK: Cued recall production task + memory task

PROCEDURE: Participants were presented with phrases of varying length in their native language, and asked to arrange them in sentences.



EXPERIMENT 1: 24 transitive sentences

EXPERIMENT 2: 30 ditransitive sentences

+ 56 filler sentences

Materials

LENGTH of NPs of transitive and ditransitive sentences was manipulated [4].

BASQUE Transitives

All-Short Andreek gaztea agurtu dute.

Women young person greeted AUX

Long-S [Geltokian trenaren zain egon diren andreek] gaztea agurtu dute.

[Station-in train-of wait be AUX-that women] young person greeted AUX

Long-O Andreek [trenaren zain egon den gaztea] agurtu dute.

Women [station-in train-of wait be AUX-that young person] greeted AUX

SPANISH Transitives

All-Short La mujer ha saludado al joven.

The woman AUX greeted the young man

Long-S [La mujer que estaba en la estación esperando al tren] ha saludado al joven.

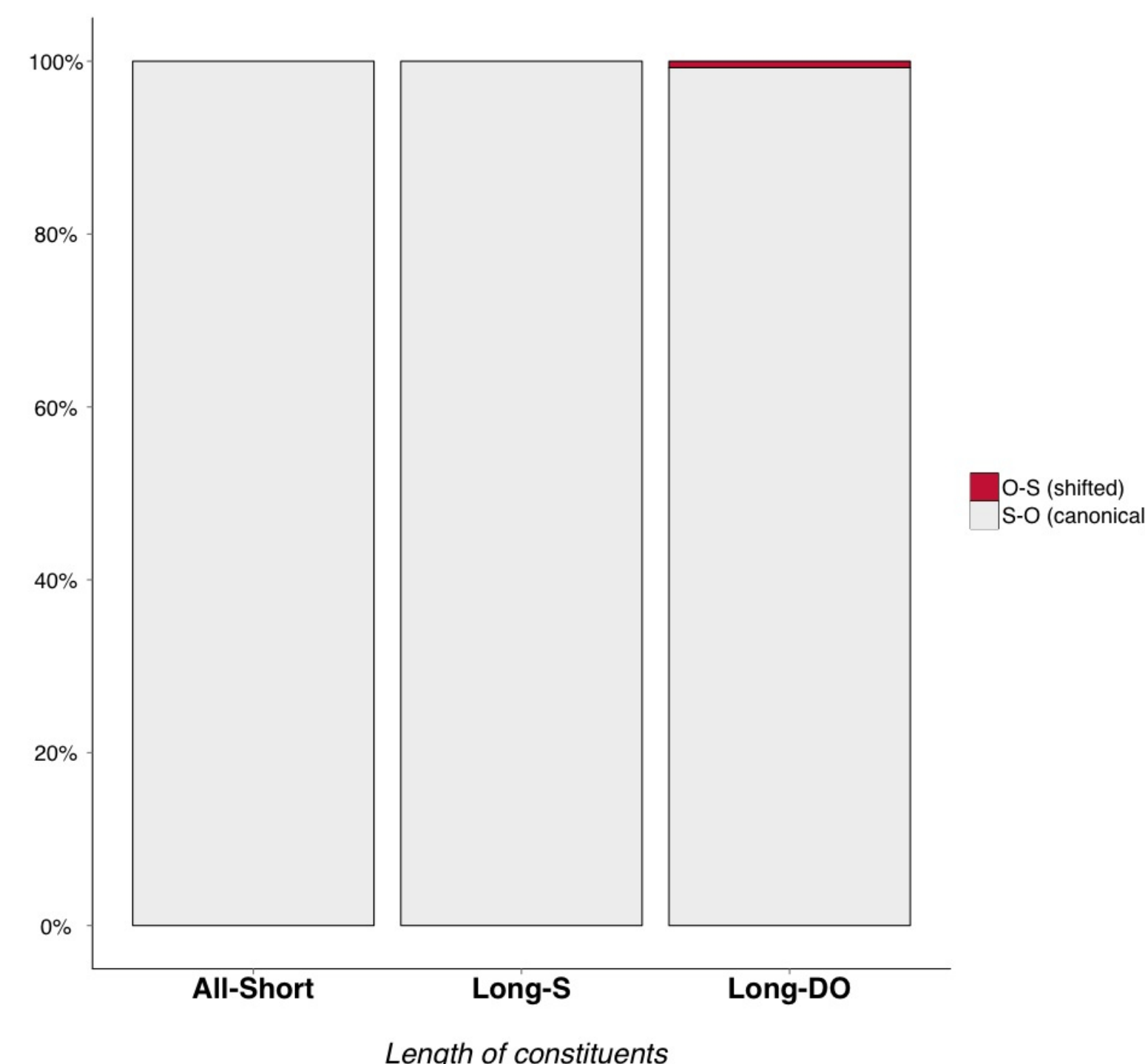
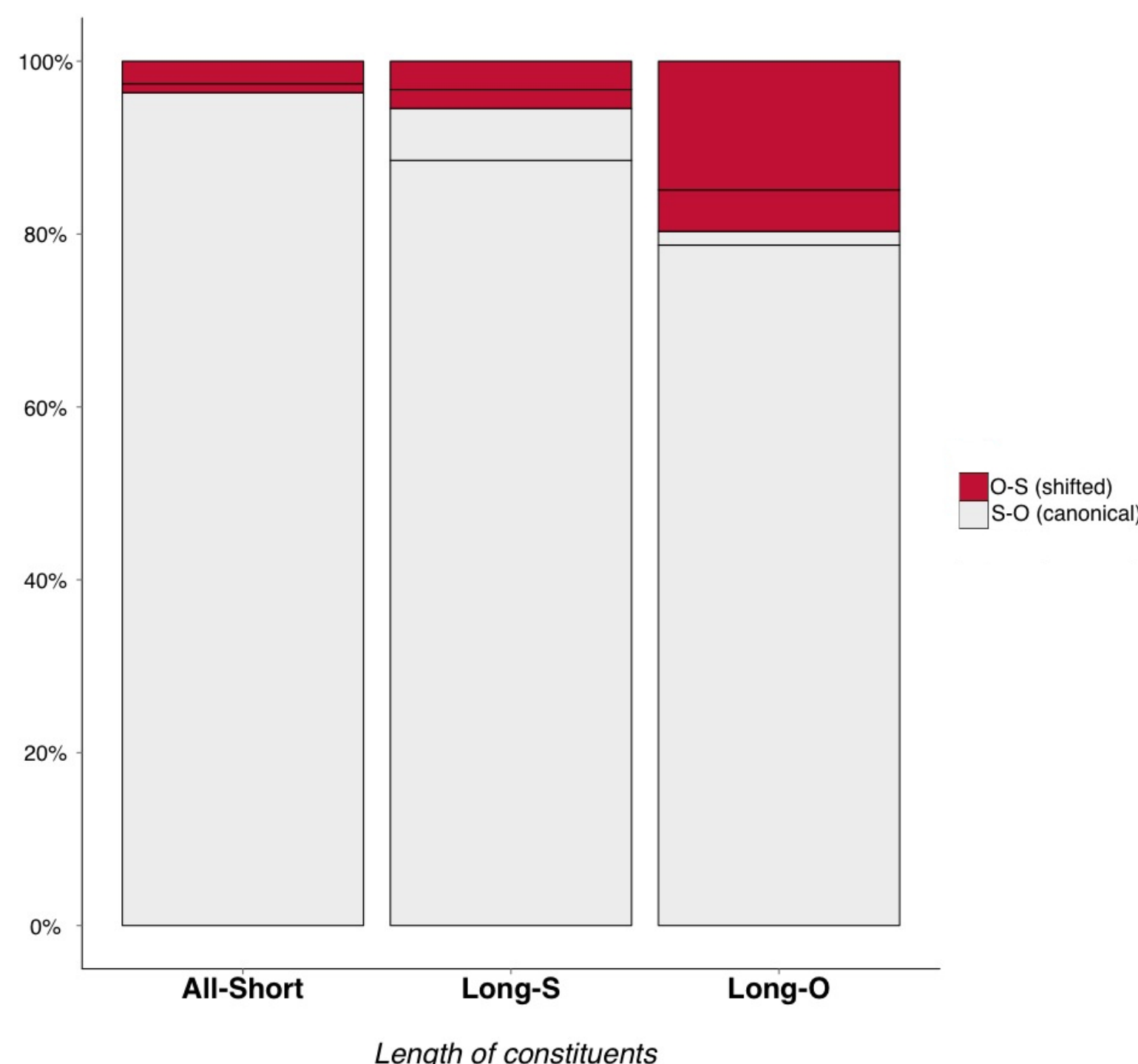
[The woman that was in the station waiting for the train] AUX greeted the young man

Long-O La mujer ha saludado [al joven que estaba en la estación esperando al tren].

Experiment 1: Percentage of shifted and canonical transitive sentences

Basque: long-before-short

Spanish: no effect

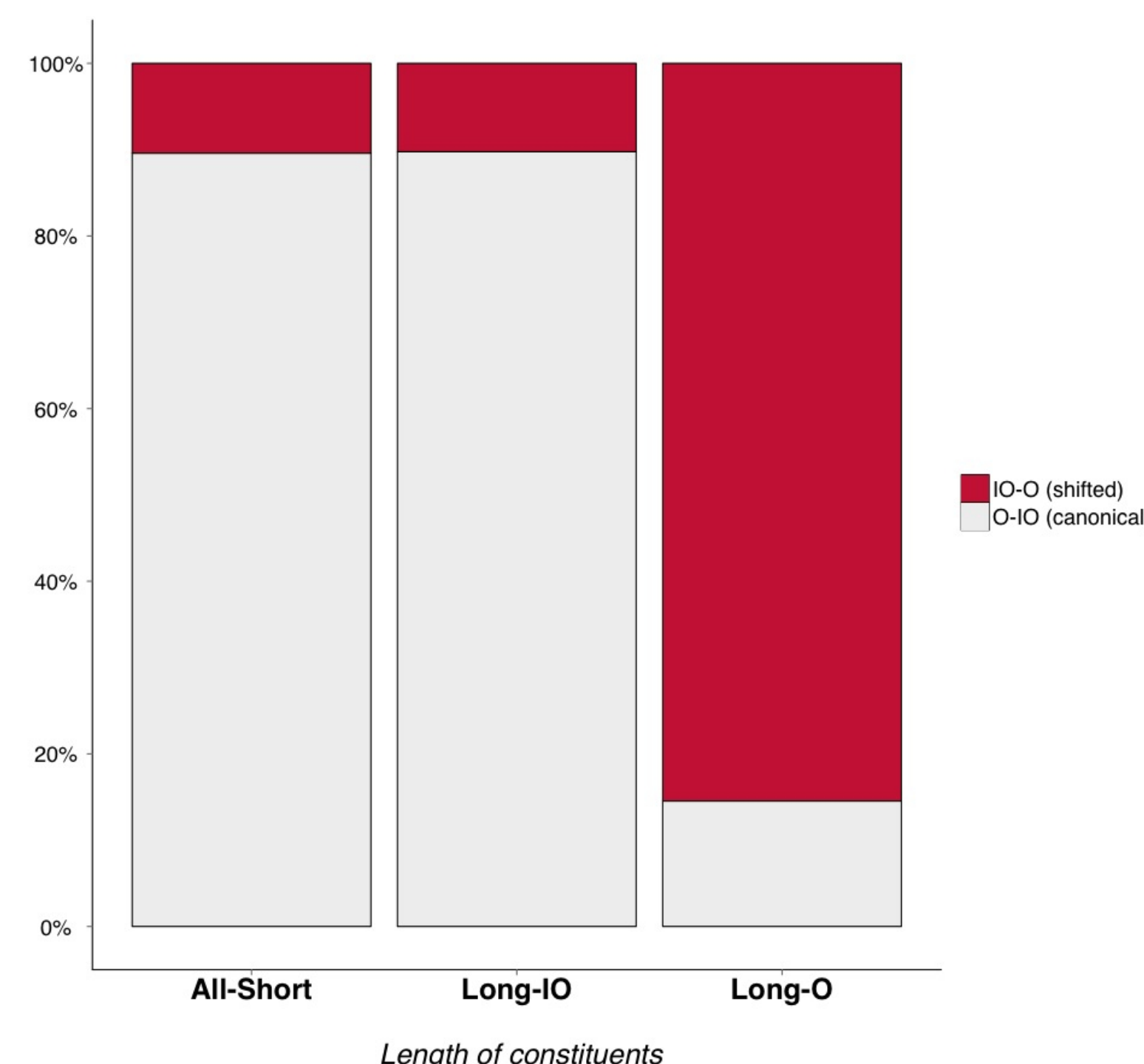
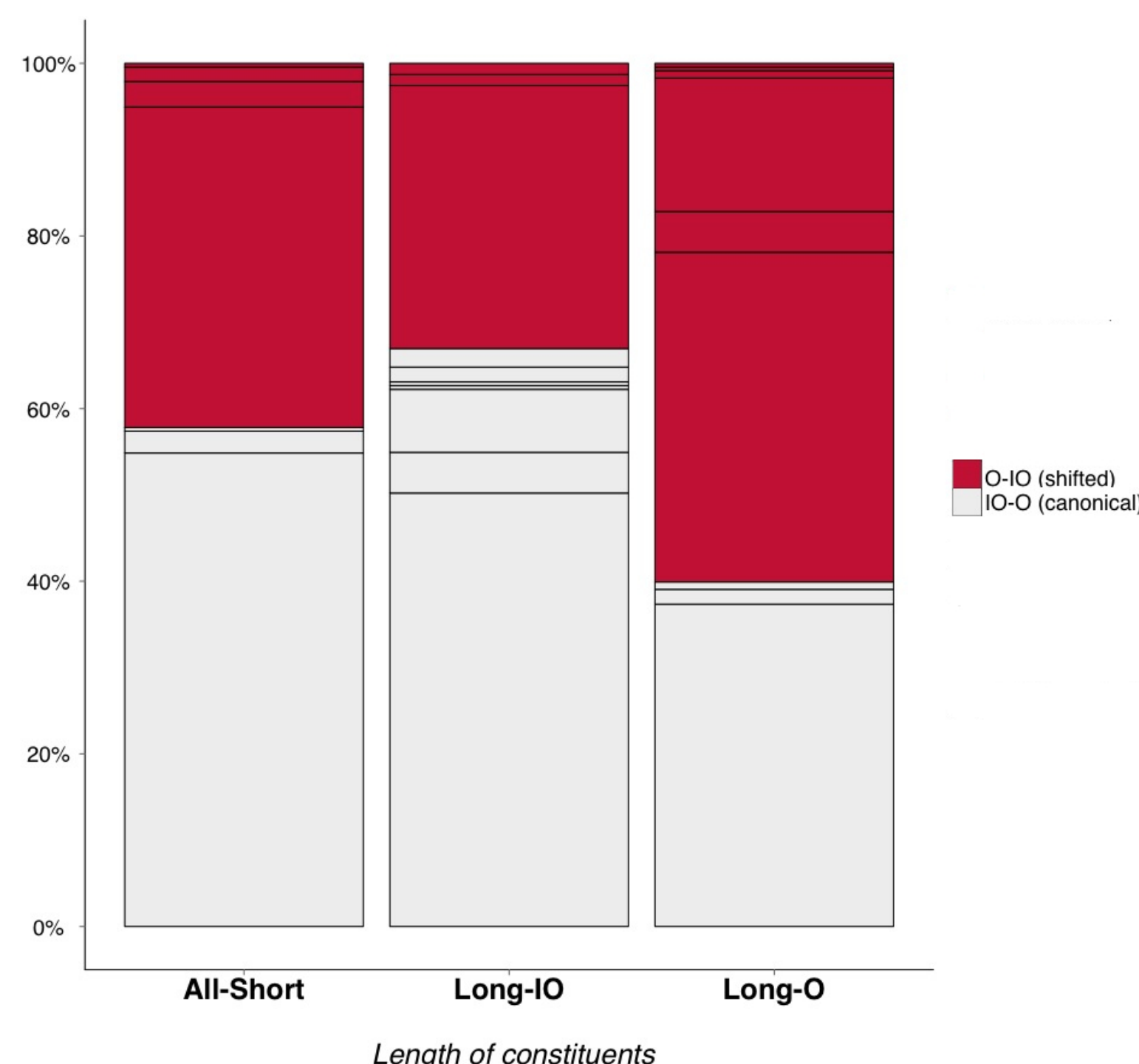


* Bars splitting conditions: different word orders produced, regarding position of other constituents (S, V or both)

Experiment 2: Percentage of shifted and canonical ditransitive sentences

Basque: long-before-short

Spanish: short-before-long



Results

EFFECT OF LENGTH: consistent with MiD predictions

- Spanish speakers favour a short-before-long strategy.
- Basque speakers prefer a long-before-short strategy.

MODULATION OF LENGTH EFFECT: inconsistent with MiD predictions

- Greater degree of word order freedom in Basque
 - Basque: 15 word orders in Exp. 2 and 4 in Exp. 1 *
 - Spanish: 2 word orders in Exp. 2
- Different impact of length on Basque and Spanish
 - No effect of length in Spanish transitive sentences
 - Stronger preference for shifted orders in ditransitive sentences in Spanish than in Basque

Discussion

MiD correctly predicts that OV and VO languages will show opposite preferences to place long constituents relative to short ones, but it fails to account for the difference in the magnitude of the length effect.

- Free word order languages (Basque) admit more word order variations in all type of sentences: word order does not signal syntactic structure effectively.
- Languages with less word order freedom (Spanish < Basque) show a more limited (only Exp. 2) but stronger effect of length.

As freedom of word order increases, the impact of MiD will decrease.

Our results show that information given by language-specific cues other than head direction needs to be taken into account to explain variations in cross-linguistic patterns of length-dependent word order preferences.

Acknowledgments

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