Ew! Disgust perception in native and foreign languages
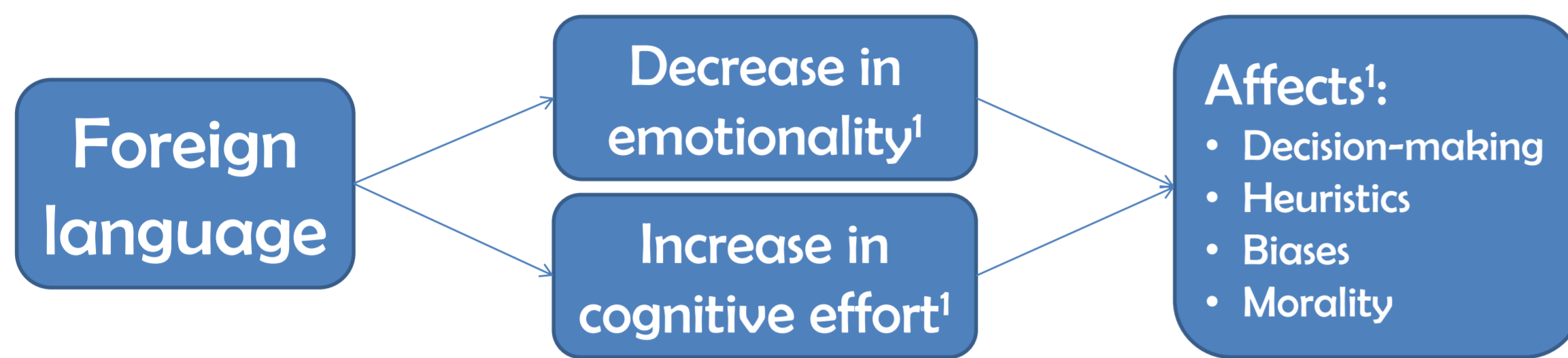
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BASQUE CENTER
ON COGNITION, BRAIN
AND LANGUAGE

INTRODUCTION

Foreign language → Decrease in emotionality[1] / Increase in cognitive effort[1] → Affects[1]:
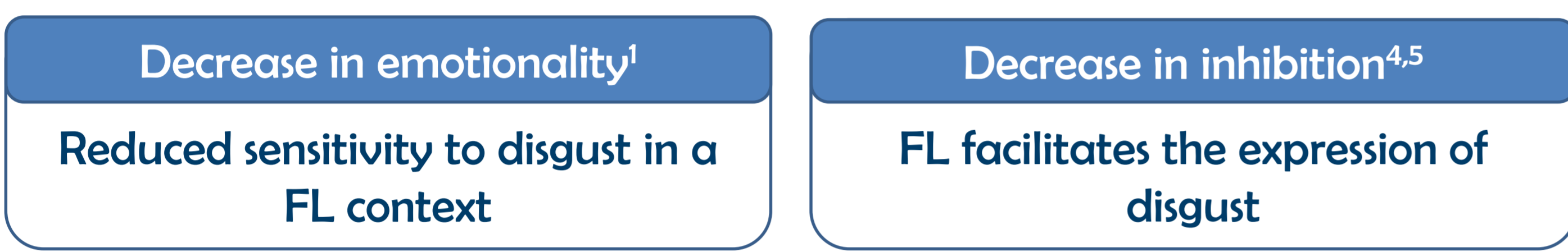• Decision-making
• Heuristics
• Biases
• Morality

Core or primary disgust:
• Related the threat of **oral incorporation** of disgust-relevant stimuli
• Can be **evoked individually**, without raising scores in other negative emotions[2]
• **Culturally universal[3]**
• Elicited by **visual stimuli** (reduces influence of language)

• Disgust relates to negative affect and moral decision-making, but is not a very socially acceptable to display. Two possible hypotheses:

Decrease in emotionality[1]	Decrease in inhibition[4,5]
Reduced sensitivity to disgust in a FL context	FL facilitates the expression of disgust

METHOD

• Participants were assigned to a native (170 participants; 120 female) or foreign language (170 participants; 120 female) context (Spanish or English, respectively). The two groups were matched for age, gender, general language skills in (EN), SES, empathic skills, and fluid reasoning.

• They assessed images of 75 insects and 50 mammals

Insects   Mammals

How disgusting is this animal?

not disgusting at all	slightly disgusting	moderately disgusting	very disgusting	extremely disgusting

• Images of insects and mammals were presented randomized in sets of 10. The levels of the scale were randomized for each set.

• After a distractor task, participants were asked to rate the extent their hostility towards each of the 75 insects from the previous block.

To what extent do you want to kill or get rid of this animal?

not at all   the strongest urge

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

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RESULTS

Disgust Results

A two-way mixed factors ANCOVA: **disgust score** (DV), Type of Animal (IV_{WS}: insect | mammal) and Language Context (IV_{BS}: native | foreign), with Gender (cov: male | female).
• Main effect of **type of animal** ($F_{(1,337)}=379.57$, $p<.001$) and of **language context** ($F_{(1,337)}=8.52$, $p=.004$) (see Fig. 1 and Table 1)
• **Interaction**: insect disgust scores differed between languages, but mammal scores did not, $F(1,337)=14.49$, $p<.001$.
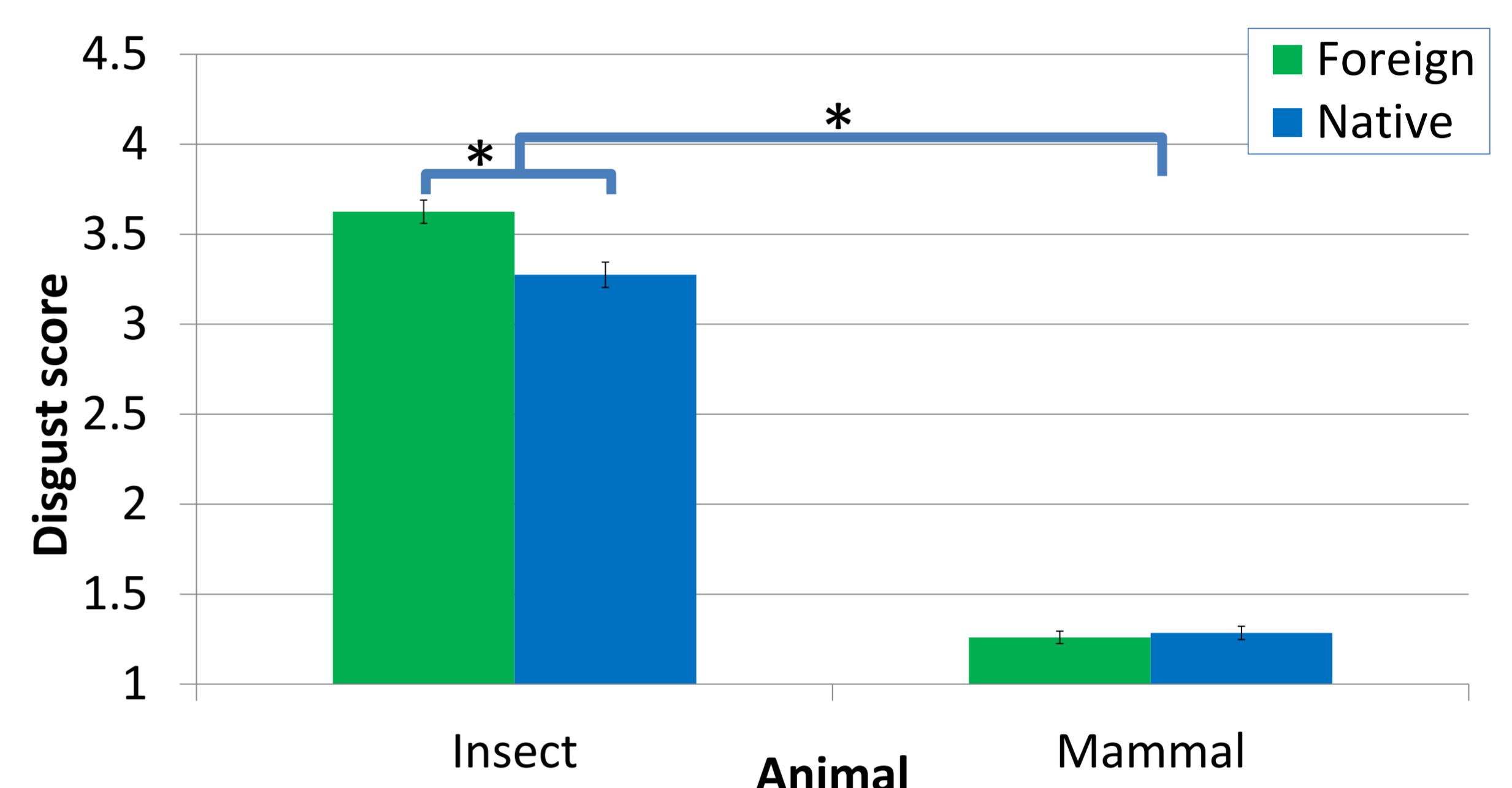
Disgust Score by Animal and Language

Figure 1: Disgust Score by Type of Animal (insect vs. mammal) and Language Context (foreign vs. native) on a 1 to 5 scale. Error bars show +/-1 SE.

		Disgust (SD)
Type of animal	Insect	3.45(.90)
	Mammal	1.27(.47)
Language Context	Foreign	2.67 (.54)
	Native	2.47 (.62)

Table 1: Means for main effects on disgust

Results on Desire to Get-rid-of

A one-way ANCOVA: **get-rid-of score** (DV), Language Context (IV_{BS}), with Gender (cov).
• Main effect of **language context** ($F(1,337)=4.95$, $p=.03$)
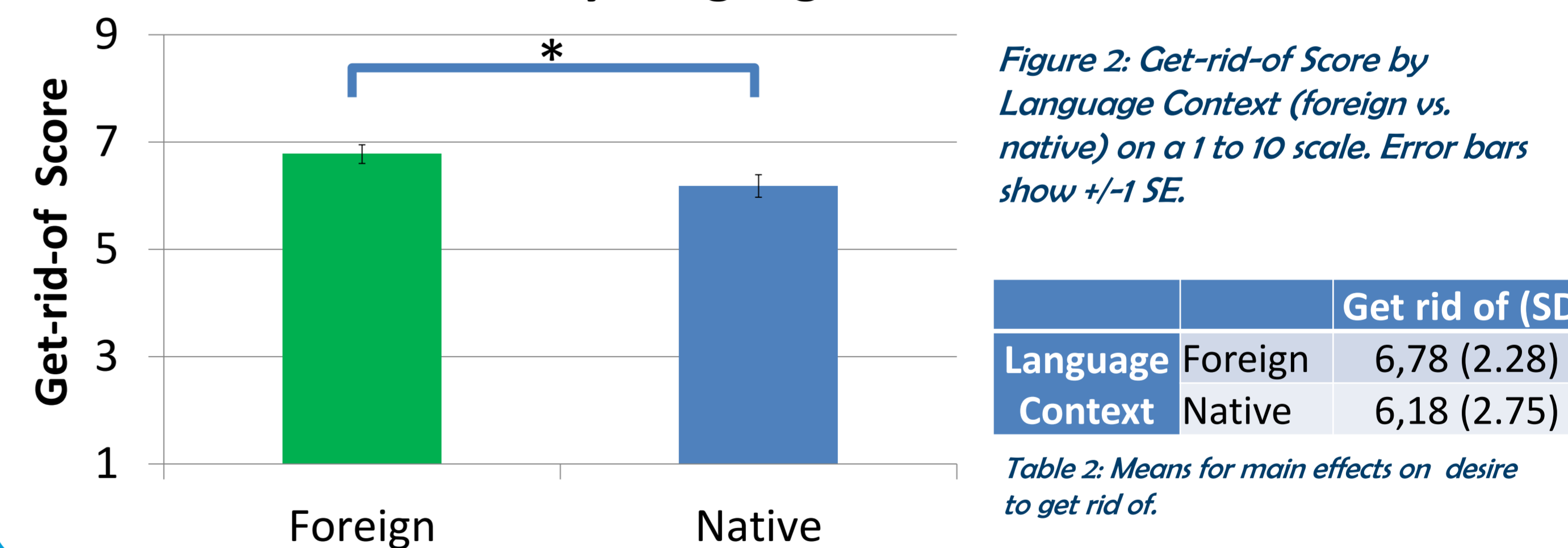
Get-rid-of Score by Language

Figure 2: Get-rid-of Score by Language Context (foreign vs. native) on a 1 to 10 scale. Error bars show +/-1 SE.

		Get rid of (SD)
Language Context	Foreign	6,78 (2.28)
	Native	6,18 (2.75)

Table 2: Means for main effects on desire to get rid of.

DISCUSSION

• Foreign language leads to **higher reports of disgust** and **desire to kill or get rid of** insects.

• In contrast with the usual decrease in negative affect in a FL, with decreases of distress[6,7] and emotionality—both behavioral and physiological.

• Could be a more disgust (against prior literature[4]) or they might simply be **more willing to report this emotion**, i.e. a decrease in social desirability bias or inhibition.

• Surveys in a FL may carry more honest answers and decrease inhibition.