

Does language shape dishonesty? Evidence from a spot-the-difference task

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Motivation

Cheating for self-benefits is common and costly. However, the role of language, the very vehicle through which most cheating behavior happens, is unclear. Since over half of the world population speaks more than one language, it is important to understand how language (native vs. foreign) shapes people's propensity to cheat. We investigate this question in 4 studies with the same paradigm.

The paradigm

Participants complete a **spot-the-difference task**, either in their native or a foreign language. The task consists of 12 randomized trials. In each trial, the goal is to **find 3 differences** between two images within 5 seconds. Participants first observe a pair of images for 5 seconds and then indicate whether they find all three differences (Yes/No). Only "Yes" response is rewarded (see Figure 1).

Unknown to participants, the real number of between-image differences varies between 0 and 3. Therefore, a "Yes" response must be cheating when there are less than 3 differences. And the **magnitude of dishonesty** increases as the real number decreases (see Table 1).

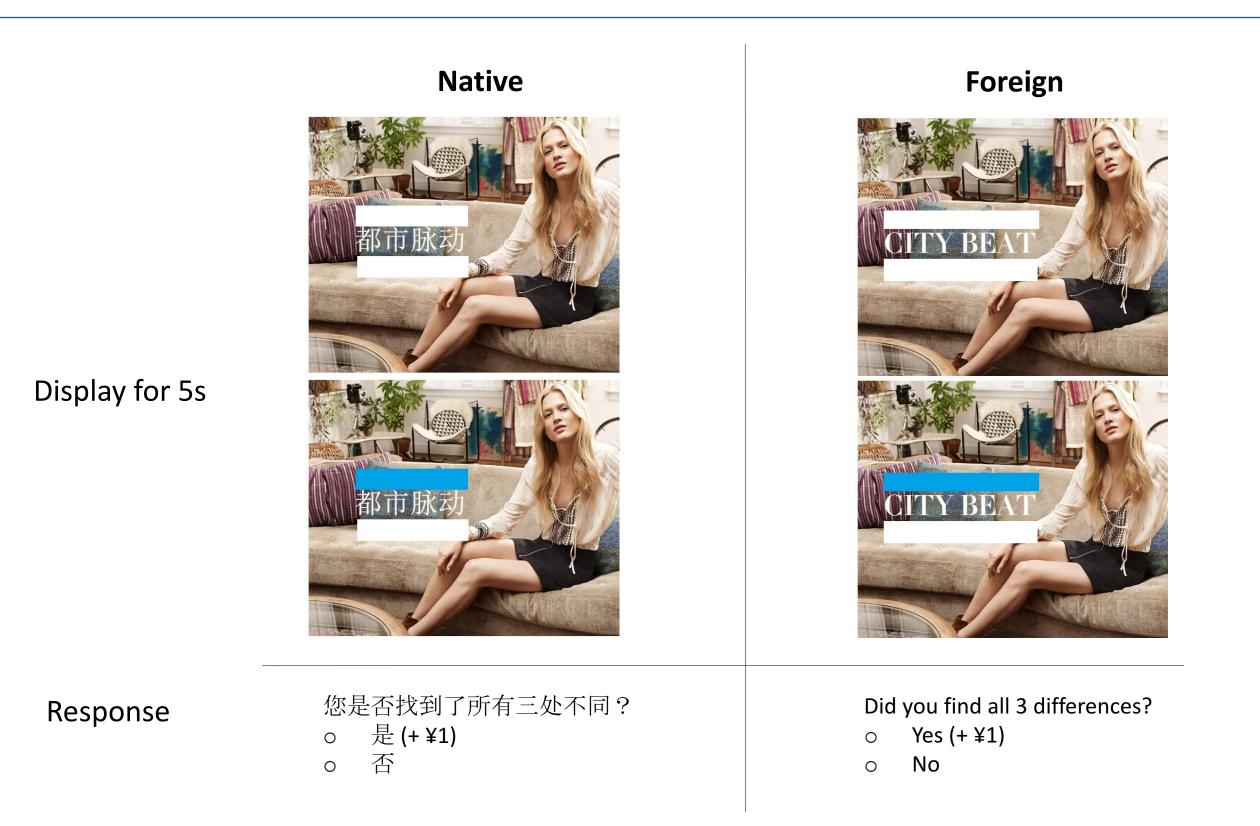


Figure 1. An example of one-difference trials.

Table1. The detection of cheating and the manipulation of magnitude of dishonesty.

	Two-difference trials	One-difference trials	Zero-difference trials
"Yes"	Minor cheating	Moderate cheating	Major cheating
"No"	Honest		

Theory & Prediction

Ethical behavior is shaped by the experience of emotions¹. While positive emotions reinforce approach, negative reinforce avoidance². Because people tend to experience less intense emotions in the foreign-language context than in the native-language context^{3,4,5}, the dominant behavior (approach or avoid cheating) in the native-language context will become less likely in the foreign-language context.

The emotional experience of cheating depends on the magnitude of dishonesty. Cheating can be emotionally rewarding when it is easy to gloss over⁶ but increasingly taxing as it becomes more blatant^{7,8}. Therefore, minor cheating should feel positive, whereas major cheating should feel negative.

PREDICTION: Foreign (vs. native) language would decrease minor cheating and increase major cheating.

Results

We adopted a meta-analytical approach by pooling all the data to a multilevel analysis. The outcome variable was the binary response with a logit link ("Yes"/cheating = 1, "No"/honest = 0). The magnitude of dishonesty served as the trial-level predictor (continuous) and the language condition as the individual-level predictor (binary). The model included random intercepts and slopes. Figure 2a and 2b illustrate the results (as expected).

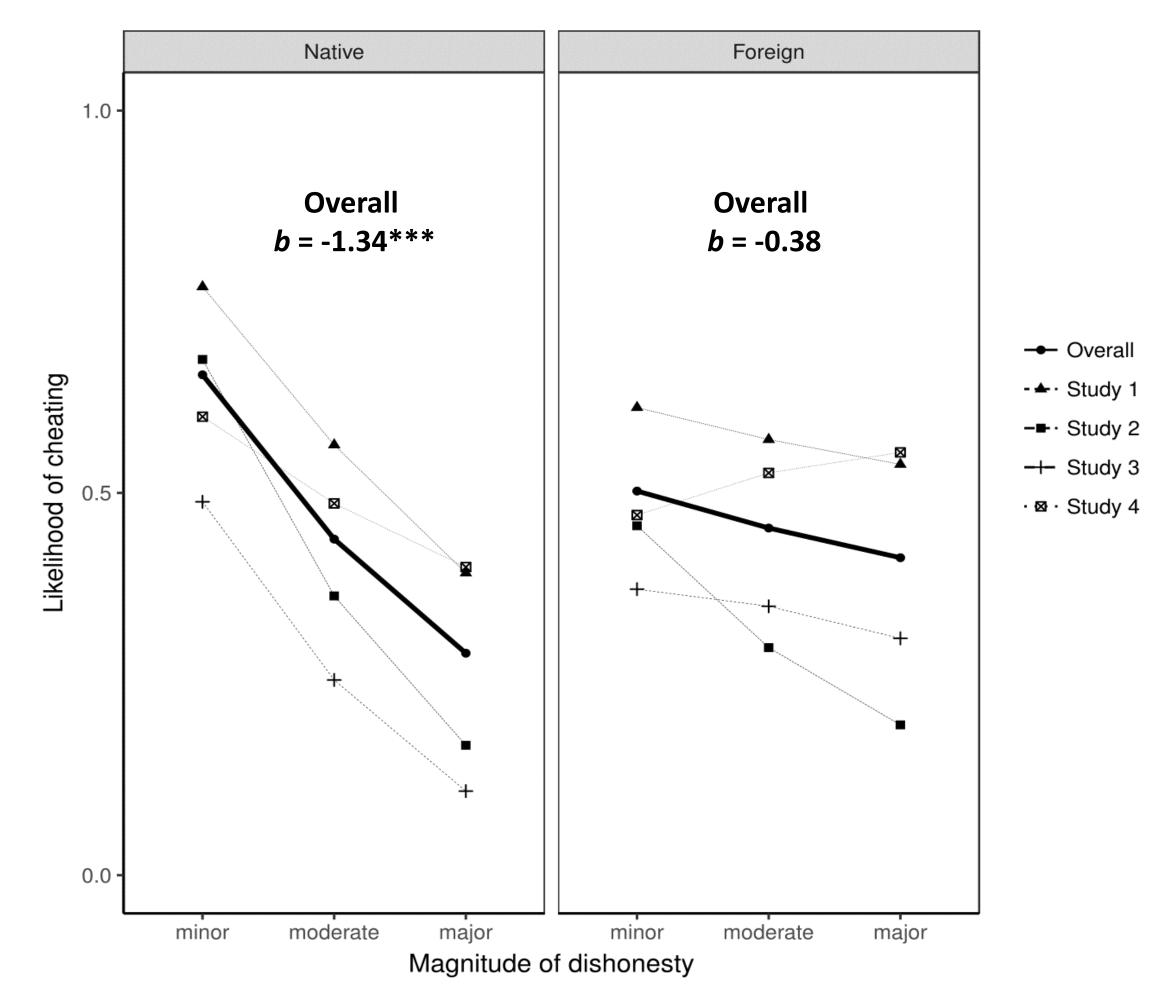


Figure 2a. The language effect on the slope. ***p < .001

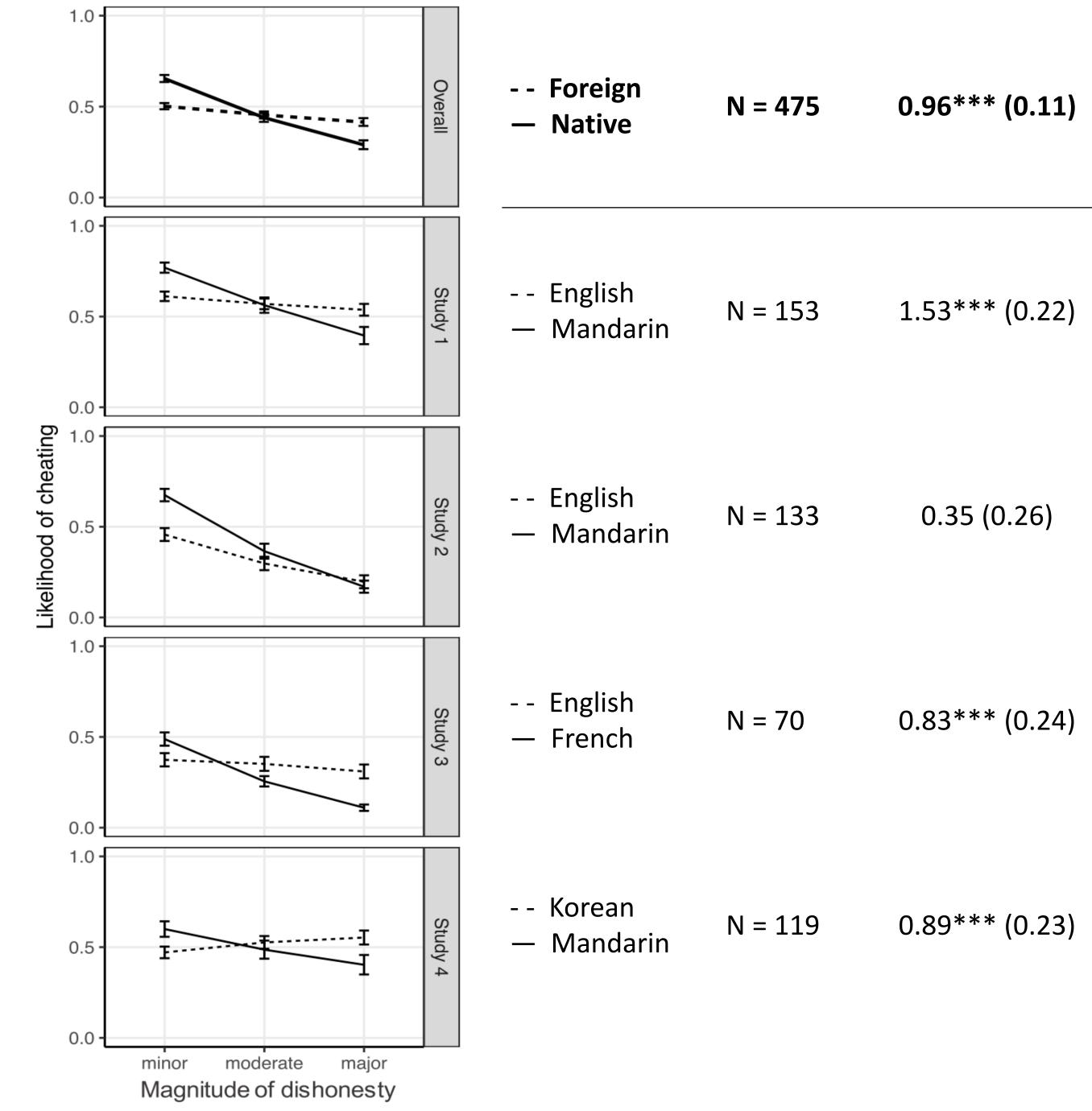


Figure 2b. The interaction effect on the likelihood of cheating Error bars are 95%CI. ***p < .001

Contributions

- Our findings add to the growing evidence that judgment and decision-making are vulnerable to the influence of language⁹.
- The research extends prior work on bilingualism from reactions to hypothetical scenarios to real-world behavior¹⁰.
- In contrast with the view that foreign language makes people more rational¹¹, we find that foreign language can either increase or decrease the likelihood of cheating when the external cost is zero.
- We introduce a novel paradigm that manipulates magnitude of dishonesty within participants and language between participants. It demands no verbal output and thus ensures that dishonesty cannot be due to disfluent expressions.

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