**RESULTS**

Two 3-way independent ANCOVAs (top for L1 and middle for L2) and one 4-way ANCOVA (bottom for WM) were implemented with age, gender and L2 exposure as covariates.

- **Group** (F(2, 72) = 17.67, p < .001 \( \eta^2 = .329 \)).
  - Pair comparison (Sidak): **WM training** and **Control** (p < .001, 95% CI [5.35, 17.24]).
  - No differences between **L1 training** and **WM training**.
- **Group** (F(2, 72) = 40.11, p < .001 \( \eta^2 = .527 \)).
  - Pair comparison (Sidak): **WM training** and **Control** (p < .001, 95% CI [3.27, 9.87]).
- **Group** (F(3, 97) = 23.07, p < .001 \( \eta^2 = .416 \)).
  - Pair comparison (Sidak): **WM training** and **Control** (p < .001, 95% CI [8.59, 19.75]).
  - No differences among the remaining groups.

Dark horizontal bars represent median scores, boxes contain scores <75% and >25% quartiles. Small circles are outliers between 1.5 and 3 times greater than the middle 50% quartile range and asterisks are those greater than 3.

**DISCUSSION**

- Training a strictly non-linguistic measure of WM led to transfer to a strictly syntactic one, which suggests that the involvement of domain-general cognition in prompting syntax is more decisive than thought.
- For L1, WM training boosted syntactic performance as much as language training. The difference in effect size between languages might be attributed to proficiency levels and other experimental conditions.
- Training children in L1 and L2 had no bearing on their WMs, confirming the unidirectionality of the effect.
- Altogether, the results reject the singularity and distinctiveness of the language-as-module view and instead suggest that language and the rest of cognition are more deeply integrated.