

Response to the Reviewers

Reviewer: 1

The authors have done a terrific jobs addressing my previous concerns. This will be a fantastic contribution to the imaging genetics literature.

Response:

We would like to thank reviewer #1 for the positive feedback on our manuscript.

Reviewer: 2

The authors have addressed my comments and I believe this paper is an important contribution to the literature that will be of interest to a broad audience. However, there may still be some typos in some of text.

We would like to thank reviewer #2 for their helpful and constructive feedback. We have now proofread the manuscript to incorporate the reviewers' suggestions (see below).

1. *For example, should line 1 of the discussion read: "To the best of our knowledge, we provide first direct evidence that the genetic influence of common <i>variants</i> on general intelligence is partially mediated by its intermediate effect on CT and SA."*

We have now corrected this sentence:

"To the best of our knowledge, we provide first direct evidence that the genetic influence of common variants on general intelligence is partially mediated by its intermediate effect on CT and SA." (Discussion, Paragraph 1).

2. *Also in the results, in lines 14-16 on page 24, should the period be there after "(Figure S8 for PS4)."? It currently reads "Within IMAGEN, the prefrontal cortices, anterior cingulate, insula, medial temporal cortex, and inferior parietal cortex (Figure S8 for PS4). PS3 to PS8 ($P_T < 1.0 \times 10^{-4}$ to $P_T < 0.2$) were associated with higher CT..."*

We have now corrected this sentence:

Within IMAGEN, PS₃ to PS₈ ($P_T < 1.0 \times 10^{-4}$ to $P_T < 0.2$) were associated with higher CT ($P_{\text{FWER-corrected}} < 0.005$; Table 1, Table S5) in the prefrontal cortices, anterior cingulate, insula, medial temporal cortex, and inferior parietal cortex (Figure S8 for PS₄). (Results, Paragraph 5)