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# Corrigendum: Enhanced intrinsic functional connectivity in the visual system of visual artist: implications for creativity

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## KEYWORDS

visual artist, creativity, functional magnetic resonance imaging, resting state, functional connectivity, visual system

## A corrigendum on

[Enhanced intrinsic functional connectivity in the visual system of visual artist: implications for creativity](#)

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In the published article, there was an error in the legend for [Figure 3](#) as published. The [Figure 3](#) legend erroneously states “negatively correlated among CONs.” It should read “There is no significant correlation observed among CONs in (A–C).” The corrected legend appears below.

In the published article, there was an error in [Figure 3](#) as published. We had missed to insert a label in the published [Figure 3](#). We have labeled the statistical *p*-values in the corrected paper to better the result display in [Figure 3](#). The corrected [Figure 3](#) appears below.

In the published article, there was an error in the Funding statement. We had missed to add one funding resource. We have made the amendment in the corrected article. The correct Funding statement appears below.

## Funding

“This work was financially supported by the National Science and Technology Council (NSC 102-2420-H-075-001-MY3, NSC 102-2420-H-075-001-MY3-2, NSC 102-2420-H-075-001-MY3-3, NSC 102-2420-H-010-005-MY3, NSC 102-2420-H-010-005-MY3-2, and NSC 102-2420-H-010-005-MY3-3), the Taipei Veterans General Hospital (V99C1-155), “Center for Intelligent Drug Systems and Smart Bio-devices (IDS<sup>2</sup>B)” and Brain Research Center of National Yang Ming Chiao Tung University from The Featured Areas Research Center Program within the framework of the Higher Education Sprout Project by the Ministry of Education (MOE) in Taiwan, and the Aim for the Top University Plan of the MOE for National Yang Ming Chiao Tung University. The funders had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.”

In the published article, there was an error. The statistical significance and *p*-value were incorrectly stated in the Results. We have revised the writing in the subsection of “Between-group differences in the correlation between FC strength and creativity” in Results.

A correction has been made to the Results, “Between-group differences in the correlation between FC strength and creativity subsection,” paragraph 1. This sentence previously stated:

“According to our hypothesis, VAs should differ from the controls in terms of the neurodynamics of the visual system, while the intrinsic FC strength should be correlated with visual creativity (Beatty et al., 2018). In the current study, the VA group presented a significantly positive correlation between ATTA CI scores and the left ITG-right SOG FC, whereas the CON group presented a significantly negative correlation (VA,  $r = 0.500$ ; cf. CON,  $r = -0.144$ ,  $p < 0.05$ ) (Figure 3A). The VA group presented a significantly positive correlation between the ATTA visual creativity subscale and the left ITG-right cuneus and -right SOG FC, whereas the CON group presented a significantly negative correlation (right cuneus: VA,  $r = 0.415$ ; cf. CON,  $r = -0.130$ ,  $p = 0.003$ ; right SOG: VA,  $r = 0.621$ ; cf., CON,  $r = -0.201$ ,  $p < 0.001$ ) (Figures 3B, C). Furthermore, we observed among VAs the effects of training (weekly practice duration in hours) on the intrinsic FC strength of the visual system. The VA group demonstrated a significantly negative correlation between weekly practice duration and FC in the left ITG with right MOG FC (VA,  $r = -0.458$ ,  $p < 0.001$ ) (Figure 3D).

We observed no between-group differences in terms of the correlation between intraregional FC and other psychological measurements. In the VA group, we observed no correlations between interregional FC and the duration of training, daily practice hours, or other ATTA subscales ( $p > 0.05$ ).”

The corrected sentence appears below:

“Our hypothesis posited that the VA group would display distinct neurodynamics in the visual system compared to the CON group. We also expected the strength of FC to be associated with visual creativity score, based on prior research (Beatty et al., 2018). In our study, we found a significant positive correlation ( $r = 0.500$ ,  $p = 0.002$ ; Figure 3A) between the CI score and the strength of

FC between the left ITG and the right SOG in the VA group. However, no significant correlation was observed in the CON group ( $r = -0.144$ ,  $p = 0.48$ ; Figure 3A). Furthermore, within the VA group, we discovered a significant positive correlation between the visual creativity score and the strength of FC between the left ITG and the right cuneus ( $r = 0.415$ ,  $p = 0.003$ ; Figure 3B), as well as the strength of FC between the left ITG and the right SOG ( $r = 0.621$ ,  $p < 0.001$ ; Figure 3C). However, no significant correlations were observed in the CON group between the visual creativity score and the strength of FC between the left ITG and the right cuneus ( $r = -0.130$ ,  $p = 0.51$ ; Figure 3B) and the strength of FC between the left ITG and the right SOG ( $r = -0.201$ ,  $p = 0.29$ ; Figure 3C). Moreover, we noted a significant negative correlation ( $r = -0.458$ ,  $p < 0.001$ ) between the weekly practice duration (measured in hours) and the strength of FC between the left ITG and the right MOG in the VA group (Figure 3D). There were no notable differences between the VA and CON groups concerning the correlation between the strength of intraregional FC and behavioral variables (training duration, daily practice hours, and psychological measurements). Additionally, in the VA group, no significant correlations were observed between the strength of interregional FC and other behavioral variables ( $p > 0.05$ ).”

In the published article, there was an error. We have revised the writing in the subsection of “FC strength in the visual system of VAs mirrors creativity” in Discussion to better the description with clarity.

A correction has been made to the Discussion, “FC strength in the visual system of VAs mirrors creativity,” paragraph 1 and 2. This sentence previously stated:

“In the VA group, we observed a significantly positive correlation between the ATTA CI scores in the FC of the left ITG with right SOG (Figure 3A). When we consider that the ATTA CI scores are a sum of four creative capacities (fluency, originality, elaboration, and flexibility), these findings indicate the consolidation of the ventral pathway in VAs facilitates the integration of various abilities in the creative process.

The positive correlations between FC strength in the left ITG (with respective right cuneus and right SOG) and visual creativity scores in the VA group (Figures 3B, C) partly indicate the neural underpinnings of creativity in VAs.”

The corrected sentence appears below:

“In the VA group, we observed a significantly positive correlation between the ATTA CI score and the strength of the left ITG-right SOG FC (Figure 3A). When we consider that the ATTA CI score is a sum of four creative capacities (fluency, originality, elaboration, and flexibility), these findings indicate the consolidation of the ventral pathway in VAs facilitates the integration of various abilities in the creative process.

The positive correlations between FC strength in the left ITG (with respective right cuneus and right SOG) and visual creativity score in the VA group (Figures 3B, C) partly indicate the neural underpinnings of creativity in VAs.”

The authors apologize for these errors and state they do not change the scientific conclusions of the article in any way. The original article has been updated.

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