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Correction

Correction: Da Silva et al. Opportunity Costs, Cognitive Biases, and Autism. *J. Mind Med. Sci.* 2025, *12*, 11

Sergio Da Silva [1,*], Maria Fiebig [1] and Raul Matsushita [2]

[1] Department of Economics, Federal University of Santa Catarina, Florianopolis 88049-970, SC, Brazil
[2] Department of Statistics, University of Brasilia, Brasilia 70910-900, DF, Brazil
* Correspondence: professorsergiodasilva@gmail.com

Text and Data-Presentation Corrections

Following post-publication review, the authors identified wording and data-presentation issues that required correction. The study [1] used entirely AI-generated simulated data; no human participants were enrolled. The corrections clarify the scope of the simulation, the status of the RAADS-R, the direction and interpretation of the generated association, the overlap of two observations in Figure 1, the inapplicability of the reported categorical analyses to the generated dataset, the sample-size rationale, and the nonclinical status of the bias-adjusted simulation index.

1. Abstract

The sentence beginning "Considering the mediating role. . ." has been replaced with: "Using an AI-generated simulation rather than human-participant data, we explore whether a model-based association can be generated between opportunity-cost processing, cognitive-bias parameters, and simulated RAADS-R scores."

The final interpretive sentence of the Abstract has been replaced with: "In this particular AI-generated dataset, higher raw opportunity-cost questionnaire totals co-varied with higher simulated RAADS-R totals. Because the two sets of item responses were independently generated, this association is hypothesis-generating and should not be interpreted as evidence about human participants or clinical autism."

2. Introduction

The statement concerning Samuelson has been revised to: "Samuelson incorporated opportunity cost into mainstream introductory economic analysis."

The description of the RAADS-R has been revised to: "The RAADS-R is a self-report screening instrument that may assist the clinical assessment of adults suspected of ASD; it is not a stand-alone diagnostic tool [46]."

The paragraph preceding the hypothesis has been revised to: "Previous evidence suggests a more complex relationship. Autistic traits may reduce susceptibility to certain biases and improve consistency in structured decisions, while cognitive rigidity or restricted attentional focus may affect the evaluation of alternatives in other contexts. The relationship between autistic traits and opportunity-cost processing should therefore be treated as an open empirical question."

The hypothesis has been revised to: "Hypothesis: Simulated autistic-trait scores may be associated with systematic differences in opportunity-cost processing, although the existence and direction of this relationship remain to be established in human ASD and neurotypical samples."

The first specific prediction has been revised to: "First, within the simulated dataset, we examine whether simulated RAADS-R totals co-vary with simulated opportunity-cost

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questionnaire totals. This model-based prediction does not imply clinical ASD status or describe an empirically observed human population."

3. Materials and Methods

The opening description of the method has been revised to: "We employed online AI tools and computational simulations to generate hypothetical parameter values and model-based questionnaire responses for exploratory hypothesis development. No questionnaires were administered to human participants, and the generated responses should not be interpreted as estimates of how real individuals would respond [48]."

The description of Likert responses has been revised to: "Each simulated case was assigned an item score from 1 to 5, corresponding to the questionnaire's Likert response categories from strongly disagree to strongly agree."

Item 10 of the opportunity-cost questionnaire has been revised to: "Before deciding whether to replace my current vehicle, I distinguish unrecoverable past spending on its purchase, repairs, or maintenance from the future costs and benefits of keeping versus replacing it."

The corresponding Table 2 entry has been revised to: "Vehicle replacement: Sunk-cost bias [64]: unrecoverable prior expenditures on the current vehicle may improperly influence the decision to keep or replace it."

The following note has been added beneath Table 2: "The item-to-bias associations are provisional theoretical mappings generated with AI assistance; they have not been established through expert validation or psychometric testing and should not be interpreted as exclusive classifications."

4. Results

The description of the simulated dataset has been revised to: "The dataset was generated entirely by code and was not collected from human respondents. Item-level scores were generated for 30 simulated cases for both questionnaires and were then summed after applying the specified reverse scoring to the RAADS-R items."

The description of random-score generation has been revised to: "Using NumPy with random seed 42, the code independently drew opportunity-cost item scores from the integers 1 to 5 and RAADS-R item scores from the integers 0 to 3. The 17 specified RAADS-R items were then reverse-scored, and the item scores were summed. No cross-scale dependency was imposed; consequently, any observed correlation is specific to this random realization and should not be interpreted as an empirical or model-imposed relationship."

The interpretation of the Pearson correlation has been revised to: "In this particular simulated dataset, higher raw opportunity-cost questionnaire totals co-varied with higher simulated RAADS-R totals ($r = 0.60$, $p = 0.0004$). Because higher raw questionnaire totals indicate greater consideration of opportunity costs and because the two scales were independently generated, this result does not support an inference that opportunity-cost neglect is greater among people with autistic traits."

The Figure 1 legend has been revised to: "Figure 1. Correlation between raw opportunity-cost questionnaire totals and simulated RAADS-R totals for 30 AI-generated cases. Two cases have identical coordinates (Opportunity Cost Score = 51 and RAADS-R Score = 111) and therefore overlap completely, leaving 29 distinct markers visible. Pearson $r = 0.60$, $p = 0.0004$."

The figure contains all 30 simulated cases. The apparent discrepancy arises because two cases share identical coordinates and are displayed at the same location.

The chi-square and ANOVA paragraph has been removed and replaced with: "All 30 simulated RAADS-R totals exceeded the stated threshold of 64. The generated dataset therefore contains only one RAADS-R category and does not support a between-category

ANOVA or a meaningful chi-square test. Accordingly, the chi-square and ANOVA results are omitted. The association in the generated dataset is described only using the continuous questionnaire totals, while recognizing that the two variables were independently generated. A simple regression of simulated RAADS-R totals on raw opportunity-cost totals yielded $b = 0.701$, $R^2 = 0.363$, $F(1, 28) = 15.96$, and $p = 0.0004$; this result describes only the particular generated dataset."

The sample-size and distributional statement has been revised to: "A sample size of 30 was selected pragmatically for this exploratory simulation. For the generated dataset, the regression residuals showed no evidence of departure from normality in a Shapiro–Wilk test ($W = 0.977$, $p = 0.753$), and a Spearman rank correlation produced a similar association ($\rho = 0.591$, $p = 0.0006$). These diagnostics do not substitute for formal power analysis or validation in human samples."

The description of the stress-test adjustment has been revised to: "A bias-adjusted simulation index was derived by adding hypothetical weighted bias effects to the baseline simulated RAADS-R total. Because this derived index is not constrained to the RAADS-R range of 0 to 240, it is not a valid RAADS-R score and must not be interpreted clinically."

In Table 7, "Adjusted Mean" has been renamed "Bias-Adjusted Simulation-Index Mean", and the caption and surrounding text now refer to bias-adjusted simulation-index values rather than adjusted RAADS-R scores. The following note has been added: "The bias-adjusted index is an unbounded derived simulation measure and is not a RAADS-R total. Values exceeding 240 therefore have no clinical RAADS-R interpretation."

5. Discussion

The principal interpretive limitation has been clarified as follows: "The AI-generated patterns are preliminary and hypothesis-generating; they do not constitute clinical evidence and do not substitute for human neurocognitive assessment."

6. Conclusions

The conclusion concerning the correlation has been revised to: "In the particular simulated dataset, higher raw opportunity-cost questionnaire totals co-varied with higher simulated RAADS-R totals. This model-generated pattern should not be generalized to human participants and, because higher raw totals indicate greater opportunity-cost consideration, it does not establish the hypothesized association with opportunity-cost neglect."

The subsequent inference about autistic individuals has been revised to: "The simulation provides a framework for formulating a hypothesis to be tested in appropriately designed samples of autistic and neurotypical participants; it does not establish that autistic individuals are more prone to overlooking opportunity costs."

7. Acknowledgments

The AI-use disclosure has been expanded to: "During the preparation of this work, the authors used ChatGPT 4o to assist with questionnaire-item generation, provisional mapping of items to cognitive biases, calibration of hypothetical parameters, generation of simulated cases, and analysis support. The authors reviewed the resulting materials and take full responsibility for the study design, interpretation, and final content."

Effect of the Corrections

These corrections materially narrow the interpretation of the article. The reported Pearson correlation remains a descriptive result for one random synthetic realization, but it does not establish that autistic individuals neglect opportunity costs. The corrected article is therefore limited to a hypothesis-generating computational exercise that requires validation with appropriately designed human-participant research. The authors apologize for any confusion caused by the original wording. This correction was prepared for review by the Academic Editor, and the original publication should be updated accordingly.

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Reference

1. Da Silva, S.; Fiebig, M.; Matsushita, R. Opportunity Costs, Cognitive Biases, and Autism. *J. Mind Med. Sci.* **2025**, *12*, 11. [CrossRef]

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