

Thank you for providing an experimental report on unconscious information processing in table tennis players under the mask mechanism. This manuscript compares unconscious information processing and brain activity in the general cognitive domain between well-trained table tennis players and non-athletes through a controlled experiment. To determine whether they can consciously detect the priming arrow, mask the task, target stimuli, and primary recognition tasks. The study analyzes reaction time, error rate, P3 latency, and P3 peak amplitude to assess the unconscious information processing performance of table tennis players in this cognitive domain. My overall opinion is that the manuscript requires improved organizational structure. Additionally, there are language issues that need to be addressed through English language proofreading. The author should also thoroughly review the content of the manuscript, paying particular attention to the use of references and punctuation. Below are my thoughts and suggestions for each section.

1. Basic reporting

In line 20, the method in the abstract, ““Twenty-two table tennis athletes (athletes) and 22 aged-matched” is the word “athletes (athletes)” in parentheses is redundant? In line 22, “task (A prime stimulus (arrows pointing left or right) was” is incorrectly bracketed. Line 24, “in the opposite direction for incongruent.) while” Same thing here, and incorrect use of periods. Line 266, “congruency ($F(1,39) = 2.26, p = 0.14, \eta_p^2 = 0.06$).” The parentheses after F are inconsistently sized. Line 333, “sensitivity to the double arrows used in this task; thus, even” There are many similar details, although they are all minor issues, they can cause difficulties for readers to read. At the same time, this also reflects the author’s seriousness towards the manuscript, so please check the manuscript carefully. In addition, there are some grammatical errors in some sentences in the manuscript, such as in line 112-113, “Based on the results of previous studies that found that specialized training.....”, in line 205-206 “with group (athlete vs. control)” it should be “with groups (athlete vs. control)”. In line 336 “A second plausible.... perception action coupling.” There are many other similar sentences in the manuscript, and the authors are requested to check the whole text carefully. The English language should be improved to ensure that an international audience can clearly understand your text.

2. Experimental design

The authors have presented the section on experimental design in a relatively detailed manner, both in terms of the use of tools and the specific process of the experiment. However, there are still some minor questions that need to be answered by the author. Firstly, what criteria does the author have for recruiting participants in the experiment? How were these table tennis players and non-athletes recruited? The author should display it in the manuscript. Second, in lines 156-157, “The target stimulus was then displayed for 100 ms, followed by another blank screen displayed for 1000 ms.” It does not appear to be seen in Figure 1 that after displaying the target stimulus for 100

ms, another blank screen is then displayed for 1000 ms. After 100 ms in Figure 1, a blank screen of 200 ms is displayed. Is this the reason for the image display? What else is the reason? Furthermore, in section 2.5 of the data analysis, the author utilized numerous subheadings. It is recommended that the author consolidate the related content, as there may not be a necessity for these subheadings.

3. Validity of the findings

Regarding the findings, the authors have presented and effectively analyzed the experimental result data. However, there are a few minor details that require the authors' attention. In lines 269-270, "significant ($F(8,32) = 0.88$, $p = 0.44$, $\eta_p^2 = 0.02$)(Table 2; Figure 3)." It is advisable not to position Table 2 and Figure 3 in the same spot simultaneously. Instead, they should be placed at the end where they best align with the text content. This approach helps ensure that readers can understand the information more easily. The same guideline applies to "(Table 3; Figure 3)." Additionally, the discussion section is overly lengthy and lacks close integration with the discussion of the original research question. It is recommended that the author reorganize this section and remove unnecessary content. Why does the author say "We hypothesize that this finding was related to the characteristics of table tennis." in discussion. Meanwhile, the discussion section needs to be reorganized and written with a better logical line.

4. Additional comments

Many punctuation marks in the manuscript are not used correctly, some subheadings are a bit unclear, and some are not. For example, in line 190, "2.5.1. Identification rates" No need to point after 1. The same applies to "2.5.2.", "2.5.3.", "3.1.", "3.2.", "3.3", "3.3.1.", "3.3.2". Regarding the (p values <0.05) in the manuscript, if the author has a specific p value, it can be written directly or the vaults can be removed and changed to $p<0.05$. For abbreviations, in line 98, "Event-related potentials (ERPs) have" is ERPs, but then it is REP. Please note that there is a difference in the form of the abbreviations to maintain consistency in the abbreviations, even though they all mean the same thing. In terms of references, some journal names in the reference section use full names, while others use abbreviations, resulting in inconsistent forms. Additionally, according to the requirements of Peer J journal's official website for reference format, the journal name needs to be the full name. The author is requested to carefully check the format of the references and make modifications. Furthermore, in the manuscript with four or more authors, abbreviate with 'first author' et al. (e.g. Smith et al., 2005). "(Wang, et al., 2024; Ziri, et al., 2024)" does not require a comma after first author name.