**Melzer**

**Project 15270**

Summary Comments

**Title page**

1. Keywords are required.

**Abstract**

1. the final proposal requires a Scientific Abstract of up to one page. I have not found any character or word limits.

**Research Plan**

**1. Length.** The page limit for the Research Plan is 15 pages. As written, the proposal is 16 pages. I tried to compact the writing to accommodate figures and additional text.

**2. Please read the document carefully.** In compacting the writing style, I may have altered the intention of sentences.

**3. Stating objectives as a list (line 84**). I suggest listing objectives. Reviewers will look for this, and it will be easier to locate. Reviewers can also refer to the objectives more easily.

**4. The arrangement of the sections is a bit unusual.** According to the ISF guidelines, the main sections should be:

I. Scientific Background

II. Research Objectives and Expected Significance

III. Detailed Description of Proposed Research

The proposal, as written, contains all of the necessary elements. However, I want to bring this to your attention.

The text below is pasted from the guidelines.

*The program should include the following sections:*

*I.**Scientific background: including a review of the research carried out on the*

*proposed topic. In the Humanities, research that is part of a longer-term*

*program (such as the Hebrew University Bible Project) should refer to the*

*entire, broad program.*

*II.**Research objectives and expected significance*

*III.**Detailed description of the proposed research, including:*

*Working hypothesis*

*Research design and methods; this section should also refer to the PI*

*institution research authority’s approvals, if required for conducting the research.*

*Preliminary results (if relevant).*

*The researcher’s resources for conducting the research: description of*

*personnel and infrastructure –accessibility and availability, including for*

*materials and archives if necessary. Proposals submitted in the Humanities*

*should also note the level of mastery of languages essential for the research.*

**5. Objectives and hypotheses.** I suggest considering placing the hypotheses at line 89 *before* the Objectives now at line 80. This arrangement will present your hypotheses based on the background information provided and describe how the objectives will address the hypotheses. As written, it seems reversed.

**6. I suggest minimizing the use of terms in quotes.** See, for example, ‘posture first strategy’ line 101, “simulated falls” line 74, and “gold standard controls” line 319. If the terms have a precise scientific meaning, it seems best to define them for readers. I removed them when possible and noted this in the margins at each instance.

**7. Economy of writing.** As a general comment, I suggest some sentences are a bit wordy. I realize this is for scientific precision. I worked in detail on some sentences. The edits are in the interest of word economy to make room for figures and additional text and to aid clarity. The Organization and flow of the proposal are quite good!

**8. Order of statements.** I bolded the knowledge gap (line 59) and proposal significance (now at line 65). This arrangement places these critical statements about the knowledge gap, significance, and objective in order and easily visible in the text for reviewers. See also comment 5 about the placement of hypotheses prior to objectives.

**9. Explicit objectives**. I suggest stating the objectives explicitly as a list for easy referral. At the moment, there are two objectives. Typically, proposals have at least three objectives, but it depends on the nature of the project.

**10. Redundancies.** Throughout, I note areas where there is redundancy in the text. For example, “posture” and “posture function” seem redundant unless the intent is to describe a function associated with posture. Also, “true” and real-life.” I have edited this and other instances for clarity and word economy. I realize there could be a specific meaning to “posture function,” or the term is commonly used in your field. Apologies if there are such cases.

**11. Preliminary data (line 255).** Except for section 2.7.5, the results presented were published previously. While they support your arguments, they are not preliminary (meaning unpublished) and may even be placed toward the end of the Scientific Background, perhaps as a separate subsection as a lead-in to Preliminary Results. Regardless, if I understand the proposal correctly, I suggest emphasizing the information in 2.7.5 by adding as much data as possible, including stats to the extent possible and a figure with two or more panels, if you have this detail. The successful preliminary results from this section are critical to the feasibility because the proposal relies on a new application for your existing testing system.

**12. Section numbering.** Section 2 is extensive, so I suggest making Preliminary Data a major numbered section and renumbering the subsequent major and minor sections.

**3. Preliminary Data**

**4. Summary of Innovations and Impact**

**5. Comprehensive Description of Methodology and Plan of Operation**

**6. Risk Analysis**

Also, to make them easier for reviewers to identify, I increased the font size of these major headings to 12 points. The rest is now 11 points, as noted in comment 12.

**13. Font size.** After editing, the proposal was more than 16 pages long, while the limit was 15 pages. ISF rules permit a font size of at least 11 points. As written, the proposal is 12 points. I reduced the font size to 11, resulting in a proposal that is now less than 14 pages. This reduction will make room for figures and future text.

**14. Innovations and Impact (line 289).** While this section as written is well done, I suggest that it should explicitly state the innovations and impacts.

a. This starts with the innovation of your testing system and any other novel features of your proposal. I believe your testing system has been published. In this regard, it is not an innovation for this grant. It seems that the innovation is how you will apply it to your problem. If you agree, I suggest emphasizing this aspect more strongly. Any other innovations should be included.

b. As for impacts, this is not stated as written. What will be the impact on LLPs? Can the results be applied to other conditions? What are the impacts on broader society? What are the impacts on the scientific community and your field? Will your study lead other scientists to use the system or spur new studies, thus promoting the field?

c. Hypotheses in this section seem out of place in that they do not speak to innovations or impacts.

**15. Writing in the third person.** The proposal is written mainly in the third person. Writing in the first person is more accepted nowadays, which can help distinguish the work you propose. In practice, proposals are a combination of first and third person. I have edited throughout to add a balance of the two styles. Again, please read the edited proposal carefully to ensure I have not altered your intent.

**16. Alignment of hypotheses.** In line 90, four hypotheses are stated. In line 290, four hypotheses are stated. In Section 5.4 (line 425), you propose statistical methods to test three hypotheses. I suggest comparing hypotheses stated at these three locations to confirm they are consistent and that your statistical methods are testing all hypotheses if that is your intention. I suggest explaining that choice if you intend to test three of the four.

**17. Acronyms.** APA is defined on line 126 as Associated Postural Adjustments. APA is defined later at line 407 as anticipatory postural adjustments. To avoid confusion, it should be defined only at first use. Center of mass (CoM) is defined twice (lines 130 and 187). I removed the second instance. The acronym MFCL is defined in line 416 but is not used. I felt this as it may be a commonly recognized acronym.

Overall. It is another interesting proposal. It is well organized. Congrats. I hope the comments and edits are helpful. Please let me know if you have any questions.