A Manuscript Microscope 'Sentence Audit' of:

Limb apparent motion perception: modification by tDCS, and clinically or experimentally altered bodily states

What is the Manuscript Microscope Sentence Audit?

The Manuscript Microscope Sentence Audit is a research paper introspection system that parses the text of your manuscript into minimal sentence components for faster, more accurate, enhanced proofreading.

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- Accelerated Proofreading: Examine long technical texts in a fraction of the usual time.
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Manuscript Source: https://www.biorxiv.org/content/10.1101/2021.03.06.433957v1

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Features of the Sentence Audit:

The Sentence Audit combines two complementary proofreading approaches:

1. Each sentence of your text is parsed and displayed in isolation for focused inspection.
2. Each individual sentence is further parsed into Minimal Sentence Components for a deeper review of the clarity, composition and consistency of the language you used.

The Minimal Sentence Components shown are the smallest coherent elements of each sentence of your text as derived from it's conjunctions, prepositions and selected punctuation symbols (i.e. commas, semicolons, round and square brackets).

The combined approaches ensure easier, faster, more effective proofreading.

Comments and Caveats:

• The sentence parsing is achieved using a prototype natural language processing pipeline written in Python and may include occasional errors in sentence segmentation.

• Depending on the source of the input text, the Sentence Audit may contain occasional html artefacts that are parsed as sentences (E.g. "Download figure. Open in new tab").

• Always consult the original research paper as the true reference source for the text.

Contact Information:

To get a Manuscript Microscope Sentence Audit of any other research paper, simply forward any copy of the text to John.James@OxfordResearchServices.com.

All queries, feedback or suggestions are also very welcome.

Research Paper Sections:

The sections of the research paper input text parsed in this audit.

Section No.	Headings	Sentences
Section: 1	Abstract	10
Section: 2	Introduction	17
N/A	--- --- --- --- --- --- ---	0
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The Sentence Audit Of The Research Paper

Title **Limb apparent motion perception: modification by tDCS, and clinically or experimentally altered bodily states**

S1 [001] **Abstract**

S1 [002] Limb apparent motion perception (LAMP) refers to the illusory visual perception of a moving limb upon observing two rapidly alternating photographs depicting the same limb in two different postures.

Limb apparent motion perception ...
... (LAMP) ...
... refers ...
... to the illusory visual perception ...
... of a moving limb ...
... upon observing two rapidly alternating photographs depicting the same limb ...
... in two different postures.

S1 [003] Fast stimulus onset asynchronies (SOAs) induce the more visually guided perception of physically impossible movements.

Fast stimulus onset asynchronies ...
... (SOAs) ...
... induce the more visually guided perception ...
... of physically impossible movements.

S1 [004] Slow SOAs induce the perception of physically possible movements.

Slow SOAs induce the perception ...
... of physically possible movements.

S1 [005] According to the motor theory of LAMP, the latter perception depends upon the observers' sensorimotor representations.

According ...
... to the motor theory ...
... of LAMP, ...
... the latter perception depends ...
... upon the observers' sensorimotor representations.

S1 [006] Here, we tested this theory in two independent studies by performing a central (study 1) and peripheral (study 2) manipulation of the body's sensorimotor states during two LAMP tasks.

Here, ...
... we tested this theory ...
... in two independent studies ...
... by performing a central ...
... (study 1) ...
... and peripheral ...
... (study 2) ...

... manipulation ...

... of the body’s sensorimotor states ...

... during two LAMP tasks.

S1 [007] In the first sham-controlled transcranial direct current stimulation between-subject designed study, we observed that the dampening of left sensorimotor cortex activity through cathodal stimulation biased LAMP towards the more visually guided perception of physically impossible movements for stimulus pairs at slow SOAs.

In the first sham-controlled transcranial direct current stimulation between-subject designed study, ...

... we observed ...

... that the dampening ...

... of left sensorimotor cortex activity ...

... through cathodal stimulation biased LAMP towards the more visually guided perception ...

... of physically impossible movements ...

... for stimulus pairs ...

... at slow SOAs.

S1 [008] In the second, online within-subject designed study, we tested three participant groups twice: (1) individuals with an acquired lower limb amputation, either while wearing or not wearing their prosthesis; (2) individuals with body integrity dysphoria (i.e., with a desire for amputation of a healthy leg) while sitting in a regular position or binding up the undesired leg (to simulate the desired amputation); (3) able-bodied individuals while sitting in a normal position or sitting on one of their legs.

In the second, ...

... online within-subject designed study, ...

... we tested three participant groups twice: ...

... (1) ...

... individuals ...

... with an acquired lower limb amputation, ...

... either ...

... while wearing ...

... or not wearing their prosthesis; ...

... (2) ...

... individuals ...

... with body integrity dysphoria ...

... (i.e., ...

... with a desire ...

... for amputation ...

... of a healthy leg) ...

... while sitting ...

... in a regular position ...

... or binding up the undesired leg ...

... (to simulate the desired amputation); ...

... (3) ...

... able-bodied individuals ...

... while sitting ...

... in a normal position ...

... or sitting ...

... on one ...

... of their legs.

S1 [009] We found that the momentary sensorimotor state crucially impacted LAMP in all groups.

We found ...
... that the momentary sensorimotor state crucially impacted LAMP ...
... in all groups.

S1 [010] Taken together, the results of these two studies substantiate the motor theory of LAMP.

Taken together, ...
... the results ...
... of these two studies substantiate the motor theory ...
... of LAMP.

S2 [011] Introduction

S2 [012] Embodied cognition theory advocates an essential contribution of the human body's structure, functionality, and sensorimotor state on perception, action, and cognition (Barsalou, 2010; Bechara & Damasio, 2005).

Embodied cognition theory advocates an essential contribution ...
... of the human body's structure, ...
... functionality, ...
... and sensorimotor state ...
... on perception, ...
... action, ...
... and cognition ...
... (Barsalou, 2010; ...
... Bechara & Damasio, 2005).

S2 [013] In this framework, the repertoire of feasible movements and basic principles of physics, such as the implicit notion of mutual impenetrability of two solid entities (the law of impenetrability, Heinemann, 1945), may guide visual perception of body movements (Saetta et al., 2018).

In this framework, ...
... the repertoire ...
... of feasible movements ...
... and basic principles ...
... of physics, ...
... such as the implicit notion ...
... of mutual impenetrability ...
... of two solid entities ...
... (the law ...
... of impenetrability, ...
... Heinemann, 1945), ...
... may guide visual perception ...
... of body movements ...
... (Saetta et al., 2018).

S2 [014] Since such movements are often partially occluded, accurate prediction about them is crucial (Kilner et al., 2007).

Since ...
... such movements are often partially occluded, ...
... accurate prediction ...
... about them is crucial ...
... (Kilner et al., 2007).

S2 [015] Accordingly, there are dedicated mechanisms to extract the perception of coherent and dynamic bodily movement trajectories from partially occluded or even static visual cues (Downing et al., 2001; Giese & Poggio, 2003).

Accordingly, ...
... there are dedicated mechanisms ...
... to extract the perception ...
... of coherent ...
... and dynamic bodily movement trajectories ...
... from partially occluded ...
... or even static visual cues ...
... (Downing et al., 2001; ...
... Giese & Poggio, 2003).

S2 [016] For instance, human movement kinematics can be inferred from point-light displays applied to a human walker's joints in an otherwise darkened space (Blake & Shiffrar, 2007a).

For instance, ...
... human movement kinematics can be inferred ...
... from point-light displays applied ...
... to a human walker's joints ...
... in an otherwise darkened space ...
... (Blake & Shiffrar, 2007a).

S2 [017] Moreover, the presentation of static photographs implying motion (e.g., an actor jumping off a cliff) biases spatial memory about the direction of the implied motion (Kourtzi & Shiffrar, 1999; Verfaillie & Daems, 2002).

Moreover, ...
... the presentation ...
... of static photographs implying motion ...
... (e.g., an actor jumping off a cliff) ...
... biases spatial memory ...
... about the direction ...
... of the implied motion ...
... (Kourtzi & Shiffrar, 1999; ...
... Verfaillie & Daems, 2002).

S2 [018] A compelling illustration of such predictive mechanisms is the so-called limb apparent motion perception (LAMP, Shiffrar & Freyd, 1990).

A compelling illustration ...
... of such predictive mechanisms is the so-called limb apparent motion perception ...
... (LAMP, ...
... Shiffrar & Freyd, 1990).

End of Sample Audit

This is a truncated Manuscript Microscope Sample Audit.

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