

Article

Title

Warren James 1,†,‡, Josephine Reuther 1,‡, Amelia Hunt and 1 Alasdair Clarke 2,*

- ¹ Affiliation 1; e-mail@e-mail.com
- ² Affiliation 2; e-mail@e-mail.com
- * Correspondence: e-mail@e-mail.com; Tel.: (optional; include country code; if there are multiple corresponding authors, add author initials) +xx-xxxx-xxxx (F.L.)
- † Current address: Affiliation 3
- ‡ These authors contributed equally to this work.

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- Abstract: A single paragraph of about 200 words maximum. For research articles, abstracts should
- give a pertinent overview of the work. We strongly encourage authors to use the following style of
- 3 structured abstracts, but without headings: (1) Background: Place the question addressed in a broad
- context and highlight the purpose of the study; (2) Methods: Describe briefly the main methods or
- treatments applied; (3) Results: Summarize the article's main findings; and (4) Conclusion: Indicate
- 6 the main conclusions or interpretations. The abstract should be an objective representation of the
- article, it must not contain results which are not presented and substantiated in the main text and
- should not exaggerate the main conclusions.
- **Keywords:** keyword 1; keyword 2; keyword 3 (list three to ten pertinent keywords specific to the article, yet reasonably common within the subject discipline.)

11 0. How to Use this Template

The template details the sections that can be used in a manuscript. Note that the order and names of article sections may differ from the requirements of the journal (e.g., the positioning of the Materials and Methods section). Please check the instructions for authors page of the journal to verify the correct order and names. For any questions, please contact the editorial office of the journal or support@mdpi.com. For LaTeX related questions please contact latex@mdpi.com.

7 1. Introduction

The introduction should briefly place the study in a broad context and highlight why it is important. It should define the purpose of the work and its significance. The current state of the research field should be reviewed carefully and key publications cited. Please highlight controversial and diverging hypotheses when necessary. Finally, briefly mention the main aim of the work and highlight the principal conclusions. As far as possible, please keep the introduction comprehensible to scientists outside your particular field of research. Citing a journal paper [1]. And now citing a book reference [2]. Please use the command [1] for the following MDPI journals, which use author-date citation: Administrative Sciences, Arts, Econometrics, Economies, Genealogy, Humanities, IJFS, JRFM, Languages, Laws, Religions, Risks, Social Sciences.

2. Results

This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation as well as the experimental conclusions that can be drawn.

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All analysis was carried out in R [?] using the BRMS package [??]. Comparison data was retrieved from https://osf.io/t6c5q/ in order to compare the current study's data to a group without the presence of a clear goal, but who otherwise carried out the same task. The full methods and analysis of this comparison data can be found by following the link provided.

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For the purposes of this study, the first four blocks completed by participants in this comparison set were used. In the first four blocks of this other study, participants either carried out the standard task as described in [?], or they were effectively instructed as to where they should fiated on each trial in order to achieve the optimal accuracy. The group without instructions is henceforth referred to as the "control" group, and the instructed group as the "optimal" group.

5 Fixation Proportions

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On each trial, participants were given three possible locations to fixate. Fixations were coded as being either a central fixation (i.e., they fixated the centre box), or as a side fixation (i.e., they fixated one of the side boxes). A proportion was then calculated for how often the participant fixated one of the side boxes within each of the distances mentioned in the methods section.

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From an intial inspection of Figure 1, participants in the motivated group do not appear to be doing anything different to those in the Control group. They certainly do not look as though they have been instructed as to where to look if one compares their results to the Optimal group.

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I do have model results for this... but I imagine this can be added to the supplementary material?

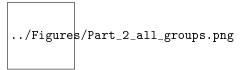


Figure 1. Plot of proportion of fixations to the side box (y-axis) with increasing Delta (x-axis). The bottom set of plots (in red) demonstrate what behaviour would look like if participants had employed an optimal fixation strategy

Rate of Success

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Initial analysis for rate of success examined overall accuracy for each participant. To do this, an average was calculated for each participant which was then modelled using a Bayesian Regression Model with a Beta family. All priors were left as uniform and therefore uniformative. Rate of success was modelled using group as a predicor variable. Delta was not investigated as we are first and foremost interested in the participant's overall rate of success.

Should the analysis that included Delta be presented in the supplementary material? Pretty sure it does help with the model fit, but it's not entirely necessary for the conclusions of this paper?

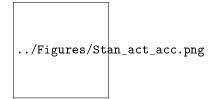


Figure 2. Model output for raw success rate.

In Figure 2, it can bee seen that that the Motivated group were generally more successful than the Control group. However they did not reach the same level of success as the optimal group.

This result seems somewhat surprising given the fixation proportions that can be observed in Figure 1. As such, additional analyses were carried out.

Expected Rate of Success

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In order to make a fairer comparison of the groups, each participant's expected success rate was calculated given the fixations choices they had made on each trial. For example, if the boxes were far apart and the participant had fixated one of the side boxes on that trial, they would have a $\approx 100\%$ chance of success at the fixated box (b_f) and $\approx 50\%$ chance of success at the non-fixated box (b_{nf}) as this would be imperceptable but they would have a 50% (c) chance due to the nature of the task. Each of these boxes would be equally likely to contain the target and so the expected chance of success on a trial like this would be 75% which is given by calculating ($b_f + b_{nf}$) \times c. This was calculated for each participant, on each trial. This was then averaged for each participant to give an average expected accuracy.

After accounting for chance, the difference that was once observed when modelling participant's raw success rate (Figure 2) appeared to entirely dissapear. Inspecting Figure 3 would demonstrate that participants in the Motivated and Control groups almost identical expected success rates as can be seen by the almost entirely overlapping posterior predictions. These results would suggest that the previously greater rate of success experienced by the Motivated group was not due to them making better, strategical decisions about where to fixate. Instead, this greater rate of success would appear to be due to something other than a more optimal strategy being utilised.

Probably need to make some mention of actual numbers from the output when talking about the models...?

- 94 2.1. Subsection
- 2.1.1. Subsubsection
- Bulleted lists look like this:

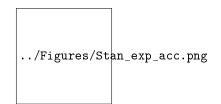


Figure 3. Model output for expected success rate.

- First bullet
- Second bullet
- Third bullet
- Numbered lists can be added as follows:
- 101 1. First item
- 102 2. Second item
- 103 3. Third item
- The text continues here.
- 2.2. Figures, Tables and Schemes
- All figures and tables should be cited in the main text as Figure 1, Table 1, etc.



Figure 4. This is a figure, Schemes follow the same formatting. If there are multiple panels, they should be listed as: (a) Description of what is contained in the first panel. (b) Description of what is contained in the second panel. Figures should be placed in the main text near to the first time they are cited. A caption on a single line should be centered.

107 Text

108 Text

Table 1. This is a table caption. Tables should be placed in the main text near to the first time they are cited.

Title 1	Title 2	Title 3
entry 1	data	data
entry 2	data	data

109 Text

110 Text

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2.3. Formatting of Mathematical Components

This is an example of an equation:

$$a + b = c \tag{1}$$

- Please punctuate equations as regular text. Theorem-type environments (including propositions, lemmas, corollaries etc.) can be formatted as follows:
- **Theorem 1.** *Example text of a theorem.*

The text continues here. Proofs must be formatted as follows:

Proof of Theorem 1. Text of the proof. Note that the phrase 'of Theorem 1' is optional if it is clear which theorem is being referred to. \Box

The text continues here.

3. Discussion

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Authors should discuss the results and how they can be interpreted in perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible. Future research directions may also be highlighted.

4. Materials and Methods

Materials and Methods should be described with sufficient details to allow others to replicate and build on published results. Please note that publication of your manuscript implicates that you must make all materials, data, computer code, and protocols associated with the publication available to readers. Please disclose at the submission stage any restrictions on the availability of materials or information. New methods and protocols should be described in detail while well-established methods can be briefly described and appropriately cited.

Research manuscripts reporting large datasets that are deposited in a publicly available database should specify where the data have been deposited and provide the relevant accession numbers. If the accession numbers have not yet been obtained at the time of submission, please state that they will be provided during review. They must be provided prior to publication.

Interventionary studies involving animals or humans, and other studies require ethical approval must list the authority that provided approval and the corresponding ethical approval code.

37 5. Conclusions

This section is not mandatory, but can be added to the manuscript if the discussion is unusually long or complex.

140 6. Patents

This section is not mandatory, but may be added if there are patents resulting from the work reported in this manuscript.

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164 Abbreviations

165 The following abbreviations are used in this manuscript:

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MDPI Multidisciplinary Digital Publishing Institute

DOAJ Directory of open access journals

TLA Three letter acronym

LD linear dichroism

168 Appendix A

169 Appendix A.1

The appendix is an optional section that can contain details and data supplemental to the main text. For example, explanations of experimental details that would disrupt the flow of the main text, but nonetheless remain crucial to understanding and reproducing the research shown; figures of replicates for experiments of which representative data is shown in the main text can be added here if brief, or as Supplementary data. Mathematical proofs of results not central to the paper can be added as an appendix.

176 Appendix B

All appendix sections must be cited in the main text. In the appendixes, Figures, Tables, etc. should be labeled starting with 'A', e.g., Figure A1, Figure A2, etc.

79 References

- 180 1. Author1, T. The title of the cited article. Journal Abbreviation 2008, 10, 142–149.
- Author2, L. The title of the cited contribution. In *The Book Title*; Editor1, F., Editor2, A., Eds.; Publishing House: City, Country, 2007; pp. 32–58.
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