

**Grant Number**: **ES/N018702/1**

**Sponsor: ESRC**

**Project title: Learning from total failure: why do impossible tests boost learning?**

The following files have been archived:

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| File name | File description (Short description of content, sample size, format, any linking between different types of data, i.e. survey and interviews/focus groups) |
| **Link to OSF repository** | **All OSF repositories contain:**  |
| Output 1, Experiment 1: <https://osf.io/bwyr8/> | 1. a CSV file containing the trial-level data for the experiment (sample size = 96),
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 1, Experiment 2: <https://osf.io/q7jwf/> | 1. a CSV file containing the trial-level data for each experiment (sample size=48),
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 1, Experiment 3: <https://osf.io/mf7s5/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 56)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 1, Experiment 4: <https://osf.io/q6agj/> | 1. a CSV file containing the trial-level data for each experiment, (sample size =92)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 1, Experiment 5: <https://osf.io/cbtmk/> | 1. a CSV file containing the trial-level data for each experiment, (sample size=105)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 2, Experiment 1 - <https://osf.io/tc976/>. | 1. a CSV file containing the trial-level data for each experiment, (sample size = 40)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 2, Experiment 2 - <https://osf.io/5ne72/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 32)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.

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| Output 3, Experiment 1 - <https://osf.io/ksajx/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 30)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 3, Experiment 2 - <https://osf.io/5hvqg/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 30)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 3, Experiment 3 - <https://osf.io/nesxh/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 36)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 4, Experiment 1 - <https://osf.io/48t3h/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 72)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 4, Experiment 2 - <https://osf.io/udz9g/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 88)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Output 4, Experiment 3 - <https://osf.io/y48fz/> | 1. a CSV file containing the trial-level data for each experiment, (sample size = 46)
2. a text or html file containing a description of each column in the CSV file,
3. an R script to allow users to replicate the statistical analyses that were reported in the associated publication
4. a separate R script that holds code for specialised functions, necessary for the analyses above (3) to function.
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| Files for remaining experiments will be made available upon acceptance of manuscripts for publication.  |  |

**Publications**: (based on this data, if any)

*1*: Seabrooke, T., Hollins, T. J., Kent, C., Wills, A. J., & Mitchell, C. J. (2019). Learning from failure: Errorful generation improves memory for items, not associations*. Journal of Memory and Language, 104*, 70-82. <https://doi.org/10.1016/j.jml.2018.10.001>

2: Seabrooke, T., Mitchell, C. J., Wills, A. J., Waters, J. L., & Hollins, T. J. (2019). Selective effects of errorful generation on recognition memory: the role of motivation and surprise. *Memory, 27(9), 1250-1262*. <https://doi.org/10.1080/09658211.2019.1647247>

3: Seabrooke, T., Mitchell, C.J., Wills, A.J. et al. Pre-testing boosts recognition, but not cued recall, of targets from unrelated word pairs. *Psychonomic Bulletin and Review, 28,* 268–273 (2021). <https://doi.org/10.3758/s13423-020-01810-y>

4: Seabrooke, T., Mitchell, C. J., Wills, A. J., Inkster, A. B., & Hollins, T. J. (in press). The benefits of impossible tests: Assessing the role of error-correction in the pretesting effect. *Memory & Cognition.*

5: Seabrooke, T., Mitchell, C. J. & **Hollins, T. J.** (under review). Pretesting boosts item but not source memory. *Memory*.

6: Seabrooke, T., Mitchell, C., Wills, A., Inkster, A. & Hollins, T. J. (2021). Retrieval competition in the pretesting effect. Paper based on 2 experiments presented at the Experimental Psychology Society Meeting, Kent, July. Full manuscript based on 7 experiments in preparation.

7: Hollins, T. J., Seabrooke, T., Inkster, A., & Mitchell, C. (2021). Is the pre-testing effect driven by increased curiosity? Poster presented at vSARMAC, (online conference), July. Full manuscript in preparation.