

2009:P2 – “Rawlinson Effect” in Interrupted Reading

- Supervisor:** Dr Liam Hendry
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- Research Purpose:** This project examines the “Rawlinson Effect” in an interrupted reading (Eye-Voice Span) task. The “Rawlinson Effect” is derived from an email chain letter based around the unpublished doctoral dissertation of Graham Rawlinson (1976). The basic assumption tested here is that the letters in a word can be randomly ordered (retaining the first and last letters in their original positions) and yet the word can still be read and understood. This alleged effect will be tested using a version of the Interrupted Reading task developed from the Eye-Voice span literature to test short-term retention. Participants will need to read aloud a series of text passages which will be removed unexpectedly from view. The sentences immediately following the “cut point” will be manipulated for the Rawlinson effect. Output (sound files) will be measured for correct recall of the original text, and for the appearance (if any) of the effect.
- Research Description:** This project will examine the well-known anecdotal Rawlinson Effect using adulterated versions of critical sentences in an interrupted reading task. The ever-present Baddeley model will be a major starting point, other models will also inform the Literature Review and Discussion sections. Rawlinson’s original dissertation will also be analysed as the source of the Internet meme.
- The student undertaking this project will be required to redevelop existing materials into a suitable form for the experiment, conduct the research in individual testing sessions, analyse and report the data as an Honours thesis.
- Participants:** An absolute minimum of 20 participants will be needed. Participants will ideally be first year psychology students from the experimental pool, who have English as their first language and are good readers. Community volunteers could be used if necessary. All data will have to be collected by the end of Semester 1 2009.
- Methodology:** Laboratory based study involving variations on the interrupted reading task. Some materials development using existing materials will be required in the early stages of the project. On-campus data collection in W4 labs in individual sessions of less than an hour’s duration. Students will need to analyse output (sound) files after the experiments, so unimpaired vision and hearing are essential.
- Data Analysis:** Quantitative analysis involving t-tests, ANOVA. Follow up variations in analyses may be required depending upon initial outcomes. Students will conduct all analyses (at undergraduate level of knowledge) themselves. Some data screening may be necessary.
- Student friendliness:** This project is suitable for on campus students. It is possible that it

could be carried out by an external student subject to discussions with supervisor beforehand.

This project will involve individual testing of participants in a laboratory setting.

Supervision expectations would vary from weekly to fortnightly, depending upon stage of project, usually in person (but by phone for externals).

Further reading:

- Baddeley, A. D. (2003). Working memory: Looking back and looking forward. *Nature Reviews Neuroscience*, 4, 829-839.
- Brown, G. D. A., & Hulme, C. (1995). Modelling item length effects in memory span: No rehearsal needed? *Journal of Memory and Language*, 34, 594-621.
- Cowan, N. (2001). The magical number 4 in short-term memory: A reconsideration of mental storage capacity. *Behavioural and Brain Sciences*, 24, 87-185.
- Neath, I., & Nairne, J. S. (1995). Word-length effects in immediate memory: Overwriting trace decay theory. *Psychonomic Bulletin & Review*, 2, 429-441.

Expected research outcomes: Possible APS Conference Presentation 2009/2010; Possible Journal Article either jointly or multiple authors.

Ethics:

- Ethical approval will be sought by supervisor; or
 Ethics approved – number

Resources:

- Project able to be funded within \$150 departmental limit
 Project not able to be funded within \$150 departmental limit – additional funds will come from:

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Directory: C:\Documents and Settings\User\Local
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Title: Getting Inside Heads: Using Cognitive Mapping to
Enhance Learning and Teaching
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