



School of Psychology and Clinical Language Sciences  
Whiteknights, Reading, RG6 6AL

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**Study: Slow or quick?**  
**How do we experience time in the presence of swear words?**

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**DEBRIEF SHEET**

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**Thank you for taking part in our study**

From a psychological perspective, swear words form an interesting subset of language as they seem to create unexpected behavioural and cognitive effects. For example, self-vocalised swearing has been found to increase pain tolerance, physical strength, and risk-taking behaviour. Swear words, received as experimental stimuli, have also been shown to command attention, increase response times and disrupt time perception. The finding around the disruption of time perception is interesting, however, because it runs counter to the literature base. Swear words are mainly considered to be negatively valenced, with the literature around time perception reporting that negatively valenced stimuli cause people to over-estimate how long the stimuli have been presented. However, when swear words were presented in as stimuli in a time perception study, participants significantly under-estimated how long they had been displayed.

This study was, therefore, looking to replicate that initial, surprising result. By asking you to press the space bar after 3 seconds we can test whether swear word presentation times were significantly underestimated compared to the other neutral stimuli presented. Furthermore, as language can be presented cross-modally, via written words or spoken audio, we presented swear words to you in both ways. This will allow us to test whether one modality alone drives the expected effect or whether they are both, equally able to disrupt time perception.

The reason we are interested in better understanding how swear words alter people's perception of the passing of time is because, as previously mentioned, swearing is robustly shown to increase pain tolerance. This increase has been shown using procedures that require participants to test how long they can withstand a noxious stimuli (e.g., very cold water) when repeating a swear word, compared to when repeated a neutral word. If swear words do cause an underestimation of the passing of time, as the literature currently shows, then this may explain how swearing increases pain tolerance – by making people believe they haven't withstood the stimuli for as long as they have.

**Reminder: What will happen to my data/how will it be protected?**

Your data will be kept anonymous, confidential, and securely stored, with only your anonymous ID identifying it. The final dataset collected from this study will be preserved and made available in anonymised form, so that data can be re-used by others. Your individual consent form will be kept for 5 years after the completion



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of this study. If you agreed to be contacted about future studies whilst consenting to take part, you may remove this agreement at any point in the future by emailing Prof. Phil Beaman – [c.p.beaman@reading.ac.uk](mailto:c.p.beaman@reading.ac.uk).

Finally, if you have any further questions about the study, please contact Jiewei Zheng ([jiewei.Zheng@student.reading.ac.uk](mailto:jiewei.Zheng@student.reading.ac.uk)).

Once again, thank you again for your participation.

Prof. Philip Beaman and Jiewei Zheng