

Debrief: Number/letter task-switching

Thank you for taking part in this experiment. This debriefing sheet will provide further information about the rationale of this study and how we plan to analyse the data.

(N.B. There are two different analyses that will be performed on these data, and therefore two different versions of this debriefing sheet, according to the experimenter who tested you.)

When people have to switch between two or more tasks within a block of trials, their performance varies according to whether they are performing the same task as they did on the previous trial, or whether they are switching to a different task. We are interested in exactly what causes performance to change in this way. In particular, the current study is looking at whether a task has to be performed (i.e., a “target” stimulus presented and a decision of whether or not to respond) in order for the usual effects of switching or repeating tasks to be seen on the next trial.

We asked you to perform letter-judgement and number-judgement tasks according to the colour of the stimuli. On some trials, however, there was no target stimulus (letter-number pair) shown. Only the coloured cross was shown, cueing you as to which task to prepare – these were “cue-only” trials.

We will measure the pattern of your performance (on trials requiring a button-press response) in terms of speed and accuracy of response (those are our dependent variables). We will categorise trials according to two within-subjects factors. The first factor is “run position” – i.e., whether the trial was the first, second or third in a run of trials from the same task. (Since tasks switched predictably every three trials, every trial can be categorised into one of these run positions.) The second factor is “preceding trial completion”. This means whether the preceding trial was a cue-only trial or a standard trial (i.e., where a target was presented). We will look to see if these two factors interact. If they do, that will show that preparing a task has a different effect on our subsequent readiness to perform tasks than performance does.

Your data will be held anonymously so that it is impossible to trace this information back to you individually. These data will be held securely on the University network, on DVDs in a locked office, or on encrypted USB sticks, and may be retained indefinitely. To ensure access to the data for the wider research community, the anonymous dataset may be archived online, for instance on the Open Science Framework (<https://osf.io/>), or sent to other researchers for inspection. Your completed consent form will be stored electronically on a password-protected server, and separately from any data collected, for a minimum of 3 years after the conclusion of the study.

Contact details

Experimenter: [NAME, EMAIL ADDRESS]

Supervisor: Dr Rachel Swainson, Lecturer. [EMAIL ADDRESS]

Further reading

Swainson, R., Martin, D., & Prosser, L. (2017). *The Quarterly Journal of Experimental Psychology*, 70(8), 1453-1470.
Wylie, R., Javitt, D.C., & Foxe, J.J. (2003). *European Journal of Neuroscience*, Vol. 17, pp. 667–672, 2003

N.B. Please contact the experimenter using the above email address if you would like to receive an electronic copy of your completed consent form.