

Read me for the data collection: N - 2 repetition cost using a truncated trial procedure in a single-registration and double-registration design, 2018-2019

**Grant Number:** ES/R005613/1

**Sponsor:** Economic and Social Research Council

**Project title:** N - 2 repetition cost using a truncated trial procedure in a single-registration and double-registration design, 2018-2019

There are two different experiments within this deposit.

Both experiments involved participants completing a computerised task switching experiment but which also included cue-only trials (based on Lenartowicz, Yeung, & Cohen, 2011). Participants were instructed that they would be switching between three tasks: a colour-judgement task (blue and green for left response and red and yellow for right response), a shape-judgement task (square and triangle for left response circle and diamond for right response) and a line orientation task (slanted left and vertical for left response and slanted right and horizontal for right response). The targets for the experiments were trivalent, consisting of coloured shapes that contained two lines in one of the four orientations.

#### CueOnlyAbstractCuesExpt:

This experiment took roughly 45mins. Participants were informed what task to do on every trial by a cue that was presented for 1000ms. On *completed* trials the cue was then replaced by the target. The target stayed on the screen until participants gave a response. After the response on completed trials a blank screen was displayed for 50ms, and then the next trial started. On *cue-only* trials (roughly 28% of all experimental trials) the cue was replaced by a blank screen for 50ms. After the blank screen the next trial was started. The cues were \*\*\*\*\* for the colour task, @@@@ for the line orientation task and &&&& for the shape task. Participants responded to the target using a Cedrus button box and the reaction time and accuracy of responses were measured.

#### DoubleRegistrationCueOnlyExpt:

This experiment took roughly 60mins. This experiment was based on Arrington, Logan, and Schneider's (2007, and see also Regev & Meiran, 2017) dual-registration paradigm. Participants were informed what task to do on every trial by a cue that was presented for 200ms; this was followed by a blank screen. Participants then had to press one of three buttons (with their left hand) to confirm what task they were to perform. On 70% of trials (the "completed" trials), 100ms after they responded to the cue participants were presented with a target (a coloured shape) for 200ms. This was followed with a blank screen until participants responded by pressing one of two buttons (with their right hand) to perform the cued task. There was then a 100ms blank screen until the next trial started. On the remaining 30% of trials (the "cue-only" trials), 100ms after participants responded to the cue the next trial started. The cues were COLOUR, SHAPE, or LINE. Participants responded to the cue and target using a MasterCooler keyboard and the reaction time and accuracy of responses were measured.

Read me for the data collection: N - 2 repetition cost using a truncated trial procedure in a single-registration and double-registration design, 2018-2019

The following files have been archived:

File name	File description
CueOnlyAbstractCuesExpt_Dataset_31.03.21.csv	Raw data for Cue-Only Abstract Cues Experiment
CueOnlyAbstractCuesExpt_ReadMeForDataset_31.03.21.csv	The readme for the raw data for Cue-Only Abstract Cues Experiment. This gives more detail about what data is contained in each column.
CueOnlyAbstractCuesExpt_ConsentForm.pdf	The consent form given to participants at the start of the experiment for Cue-Only Abstract Cues Experiment
CueOnlyAbstractCuesExpt_DebriefInformationSheet.pdf	The debrief given to participants at the end of the experiment for Cue-Only Abstract Cues Experiment
DoubleRegistrationCueOnlyExpt_Dataset_01.04.21.csv	Raw data for Double-Registration Cue-Only Experiment
DoubleRegistrationCueOnlyExpt_DatasetReadMe_31.03.21.csv	The readme for the raw data Double-Registration Cue-Only Experiment. This gives more detail about what data is contained in each column.
DoubleRegistrationCueOnlyExpt_Consent.pdf	The consent form given to participants at the start of the experiment for Double-Registration Cue-Only Experiment.
DoubleRegistrationCueOnlyExpt_DebriefInformationSheetV1.pdf	This is version 1 of the debrief given to participants at the end of the experiment for Double-Registration Cue-Only Experiment. There are two versions which give slightly different debriefs as the data collection was done by two students whose projects focussed on different aspects of the study.
DoubleRegistrationCueOnlyExpt_DebriefInformationSheetV2.pdf	This is version 2 of the debrief given to participants at the end of the experiment for Double-Registration Cue-Only Experiment. There are two versions which give slightly different debriefs as the data collection was done by two students whose projects focussed on different aspects of the study.