

## Supplementary Materials: Serial Order Reconstruction Tasks

### Anonymous Anonymous

Participants performed first the visual SORT, and then the verbal SORT. For each task, each participant performed 3 practice trials, followed by 20 critical trials. Every participant saw the exact same set of 23 trials. The order of presentation of the practice trials was the same across participants; the order of presentation of the critical trials was randomized per participant.

The two tasks are quite similar. For both tasks, trial started with a mouse click. After the mouse click, the participant had to wait for a random amount of time between 1200ms and 1800ms before the first element of the sequence appeared. Each sequence element appeared for 1 second, followed by a blank screen for 500ms, when a new element would be presented. At the end of the sequence, the screen remained blank for 5 seconds. Finally, all the elements appeared again and the participant was asked to click at the elements in the order in which they saw them.

In the visual sort, the elements were 7 dots presented at various places over the screen. After sequence presentation, the dots reappeared at the positions where they were during sequence presentation. In the verbal, the elements were 8 letters at the center of the screen. After sequence presentation, the letters reappeared in a random order at 8 pre-assigned positions of the screen.

The recorded response for each trial was a sequence corresponding to the order in which participants clicked on the elements on the screen. Each response was assigned a score, calculated as 1 plus the number of elements located in their correct position. For example, in the verbal SORT, if the correct sequence was BKQRSVXZ and the participant's response was BKQRSXVZ (six elements in their correct position, V and X incorrect) then the response's score was  $1 + 6 = 7$ . Finally, a participant's final score was defined as the harmonic mean of the scores over all 20 critical trials.

