

## Supplementary material

		Condition			
	Experiment	WM match-	WM unmatched-	WM match-	WM unmatched-
		cue invalid	cue invalid	cue valid	cue valid
Search task	1	98.57 (1.76)	98.73 (1.79)	99.39 (2.09)	99.02 (2.31)
	2	98.28 (2.74)	97.43 (3.08)	98.90 (1.27)	98.82 (1.61)
WM task	1	98.24 (2.22)	97.63 (2.33)	98.16 (3.11)	98.53 (2.27)
	2	96.32 (3.52)	96.81 (2.91)	97.06 (2.79)	98.49 (1.69)

Supplementary Table 1. The accuracy for each condition in Experiments 1 and 2 [Mean (SD) in %].

### Supplementary between-experiment comparison results

The between-experiment three-way repeated-measures ANOVA yielded a significant main effect of cue type ( $F(1, 66) = 11.719, p = .001, \eta_p^2 = 0.151$ ), where the search RT was faster in the exogenous cue condition than that in the endogenous cue condition (803 ms vs. 847 ms). There was a significant main effect of cue validity ( $F(1, 66) = 94.324, p < .001, \eta_p^2 = 0.588$ ), with faster search RT in the valid condition than that in the invalid condition (766 ms vs. 917 ms). There was also a significant main effect of WM-Search Match condition ( $F(1, 66) = 36.461, p < .001, \eta_p^2 = 0.356$ ), with a slower search RT in the match than that in the mismatch condition (843 ms vs. 808 ms), indicating a WM-driven attentional bias effect. No significant two-way interaction was observed between cue type and WM-Search Match condition ( $F(1, 66) = 1.315, p = .256, \eta_p^2 =$

0.020,  $BF_{01} = 2.615$ ), nor between cue validity and WM-Search Match condition ( $F(1, 66) = 0.661$ ,  $p = .419$ ,  $\eta_p^2 = 0.010$ ,  $BF_{01} = 3.003$ ). The two-way interaction between cue type and cue validity was a significant ( $F(1, 66) = 15.404$ ,  $p < .001$ ,  $\eta_p^2 = 0.189$ ). Both the exogenous cue and the endogenous cue produced a cueing effect, with the search RT being slower in the invalid condition than that in the valid condition (exogenous: MD = 90 ms, 95% CI [75, 106],  $t(67) = 11.846$ ,  $p < .001$ , Cohen's  $d = 0.621$ ; endogenous: MD = 213 ms, 95% CI [170, 255],  $t(67) = 10.003$ ,  $p < .001$ , Cohen's  $d = 1.187$ ), and the magnitude of the cueing effect produced by the endogenous cue being larger than that of the exogenous cue. More specifically, in the invalid-match condition, the search RT was faster for the exogenous than endogenous cue (MD = 181 ms, 95% CI [107, 255],  $t(66) = 4.883$ ,  $p < .001$ , Cohen's  $d = 1.184$ ), which was also the case in invalid-mismatch condition (MD = 188 ms, 95% CI [112, 263],  $t(66) = 4.967$ ,  $p < .001$ , Cohen's  $d = 1.205$ ). In the valid-match condition, no significant difference in the search RT was observed between the exogenous and endogenous cue condition (MD = 77 ms; 95% CI [-10, 163],  $t(66) = 1.767$ ,  $p = .082$ , Cohen's  $d = 0.429$ ;  $BF_{01} = 1.074$ ), which was also the case in the valid-mismatch condition (MD = 47ms, 95% CI [-33, 128],  $t(66) = 1.172$ ,  $p = .245$ , Cohen's  $d = 0.284$ ;  $BF_{01} = 2.238$ ).