

Involuntary Attentional Orienting to Counterproductive Exogenous Cues: A Bayesian analysis

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It is difficult to suppress the urge to look at your smartphone if there is a sudden flash on the screen. But would you still look at the phone if the flash *always* signals wrong information? We addressed this question using a visual temporal order judgment task, in which participants had to judge which of two stimuli appeared first. Some trials were preceded by a *counterproductive* exogenous cue, i.e., always signaling where the *second* target would appear. Bayesian parameter estimation and model comparison (using the *brms* package in *R*) revealed that the cue, despite being counterproductive, consistently attracted attention.