**Involuntary Attentional Orienting to**

**Counterproductive Exogenous Cues:**

**A Bayesian analysis**

*Antonio Schettino, Sarina Evens, Annelies Elegeert, & Gilles Pourtois*

Department of Experimental-Clinical and Health Psychology, Ghent University, Ghent (Belgium)

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.