

Attentional Network Task

Title	Attentional Network Task
Domain	Self-Regulation
Type	Behavioral
Duration (min)	20
Description	On each trial a spatial cue is following by an array of five stimuli presented at either the top of the bottom of the screen. The subject must indicate the direction of the central arrow in the array of 5. The cue that precedes the arrows can either be non-existent, a center cue, a double cue (one presented at each of the two possible target locations), or a spatial cue that deterministically indicates the upcoming target location. The ANT is a task designed to test three attentional networks: alerting, orienting, and executive control.
OSF Link	https://osf.io/br2c9/
Adult/Child	adult
Computerized	
Identified	1
Identified Description	The attention network task decomposes attentional processing into three separable components: alerting, orienting and executive control, each of which may relate to goal-directed behavior and self-regulation. The task combines attentional and spatial cues with a flanker task (a central imperative stimulus is flanked by distractors that can indicate the same or opposite response to the imperative stimulus), using response time as the primary dependent measure. For example, the orienting network contrasts performance on the task with or without a reliable spatial cue. While the three networks are discussed as largely independent, the original paper identifies interactions between the networks, particularly between the alerting/orienting networks and the conflict network. The ANT task has also been used in neuroimaging, which has related three behavioral metrics to three putatively separable functional and anatomical brain networks which are measured analogously to the behavioral measures.
Identified Supporting Documentation	

Identified PMCID, PUBMED ID, or CITATION	Text Citation: Fan, J., McCandliss, B. D., Sommer, T., Raz, A., & Posner, M. I. (2002). Testing the efficiency and independence of attentional networks. Journal of Cognitive Neuroscience, 14(3), 340–347.
Measured	
Measured Description	
Measured Supporting Documentation	
Measured PMCID, PUBMED ID, or CITATION	
Influenced	
Influenced Description	
Influenced Supporting Documentation	
Influenced PMCID, PUBMED ID, or CITATION	
Outcome (Validated vs Invalidated)	
Outcome	
Outcome Description	
Outcome Supporting Documentation	
Outcome PMCID, PUBMED ID, or CITATION	
Owner	Teon Brooks Send email to Teon