

Stop Signal Task

Title	Stop Signal Task
Domain	Self-Regulation
Type	Behavioral
Duration (min)	30
Description	Subjects make a speeded choice RT to an imperative "go" stimulus, except on the subset of trials when an additional "stop signal" occur, which tells the subject that they should try to make no response on that trial. We plan to use two probabilities of a stop signal (20% and 40%) to measure proactive slowing.
OSF Link	https://osf.io/br2c9/
Adult/Child	adult
Computerized	
Identified	1
Identified Description	The stop-signal task is the gold-standard model for measuring motor response inhibition, which is thought to be an essential component of self-regulation. On every trial, subjects make a choice response to a visual go stimulus. On a subset of trials this go stimulus is followed shortly by a stop signal, which informs the subject that they should try to countermand their response. Logan & Cowan (1984) presented the Independent Race Model that describes performance in the stop-signal task as a race between a go process that begins when the go stimulus occurs and a stop process that begins when the stop signal occurs. Whichever independent process reaches completion first determines behavior: go resulting in an overt response (i.e., stop-failure) and stop resulting in successful inhibition. The main dependent measure, stop-signal reaction time (SSRT), can be estimated with the race model. Faster SSRT indicates faster response inhibition. Faster response inhibition allows for flexible goal directed behavior in the ever-changing environment.
Identified Supporting Documentation	
Identified PMCID, PUBMED ID, or CITATION	Text Citation: Logan, G. D., & Cowan, W. B. (1984). On the ability to inhibit thought and action: A theory of an act of control. <i>Psychological Review</i> , 91, 295-327.

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