

Task	CARIT (Reward History Go/Nogo) Task
Duration (1 Run)	Runtime: 8 sec countdown + 3min 51.6sec per task run, total: 239.6s + .4s end fix per run (240s, 4:00min); Total runtime in battery: 2 Runs, (480s, 8min)
Stimuli	Go geometric shapes: hexagon, octagon, parallelogram, pentagon, trapezoid, plaque (rectangle with rounded corners) NoGo geometric Shapes: circle, square.
Task requirements	Participants are instructed to press a key whenever they see a shape, except for two specific shapes ('no-go' shapes): circle and square.
Other task notes	<p>The two NoGo shapes (circle and square) are also used in the Guessing task in this battery, where the circular and square frames are associated with win and loss, respectively, in order to create a reward association.</p> <p>The CARIT task may be performed as a regular Go/Nogo task without any previous reward history without the companion GUESSING task. A version of CARIT that still uses circle and square without any explicit mention of reward can be run as the "_NoRewHist.py" version (only logging is changed).</p> <p>Allowable stimulus response time is 800ms (600ms during presentation + first 200ms of fixation)</p>
Design	<p>Runs of 2, 3 or 4 consecutive Go's (prepotency) are interspersed with NoGo's.</p> <ul style="list-style-type: none"> • 10 2-Gos • 8 3-Gos • 6 4-Gos <p>24 NoGo's per run (12 previously rewarded, 12 previously loss), 68 Go's per run (for total of 92 trials per run).</p>
Trial timing	<p>[(8s countdown) .6s (shape) (1.0 to 4.5s jitter ITI) .6s (shape) ...]</p> <p>ITI (fixation) timing: 1.0s (26 trials), 1.5s (34 trials), 2.5s (28 trials), 4.5s (4 trials).</p>
Randomization	<p>Order of shapes and ITI were optimized using the following constraints: 1) no more than 2 repeats of circle/square NoGo sequences in a row, 2) no more than 2 repeats of prepotency level (2,3,4 Go's) in a row, 3) no two same Go shapes in a row, 4) no more than 2 repeats of ITI in a row.</p> <p>Collinearity was brute-force searched over 25,000 randomized designs per run (ITI x Nogo Condition x prepotency) to find designs with minimum collinearity of previously rewarded and neutral NoGos regressors.</p>