Equations For the Models

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2/5/2018

Stone Model

$$x(t+1) = x(t) + v \times dt + \sqrt{(dt)} \times s \times N(0,1)$$

Where x is the decision variable, v is the drift rate, dt is the step size, s is the standard deviation of the noise, $N(0,1)$ denotes the normal distribution. The RTs for this model do not include any variability and just involve addition of a residual movement time T_{er}

StoneEta

$$x(t+1) = x(t) + v_{sample} \times dt + \sqrt{(dt)} \times s \times N(0,1)$$

$$v_{sample} \sim N(v, \eta)$$

Where v_sample is drawn from each trial from a normal distribution with mean v and a standard deviation eta.