DDM

* Reaction times are analyzed; the faster one picks an option, the more likely they are to prefer that option
  + Could be useful to filter some extreme response times out (e.g. more than 3 s.d. away from mean)
* Distinguishes evaluative processing (computation of subjective value of the two response options) from factors like response strategies and non-decision time
* Fluctuating estimates of subjective value are represented as random draws from probability distributions whose means denote the true subjective value of each response option
* Drift rate = difference between the means of the two value distributions (how much child truly prefers one option over the other)
* Parameters of the DDM:
  + v = drift rate
  + a = decision threshold
  + z = bias
  + t = non-decision time

HDDM

* Python toolbox for constructing DDM’s
* **import** **hddm**
* *# Load data from csv file into a NumPy structured array*
* data = hddm.load\_csv('simple\_difficulty.csv')
* *# Create a HDDM model multi object*
* model = hddm.HDDM(data, depends\_on={'v':'difficulty'})
* *# Create model and start MCMC sampling*
* model.sample(2000, burn=20)
* *# Print fitted parameters and other model statistics*
* model.print\_stats()
* *# Plot posterior distributions and theoretical RT distributions*
* model.plot\_posteriors()
* model.plot\_posterior\_predictive()
* http://ski.clps.brown.edu/hddm\_docs/