ddmOut

contains Drift slope amount, Drift slope time, Latency amount, Latency time, Bounds, Log likelihood, Bayesian information criterion (BIC), Akaike information criterion (AIC).

Drift, latency, bounds, etc. are the values from allCombos with the maximum (minimum negative) Likelihood negLL

negLL

Matrix of length allCombos: negLL for every parameter

ddmOut.ranges

fitting procedure: Slopes and latencies

allCombos

all combinations of driftSlopeAmt,driftSlopeTime,latencyAmt,latencyTime,bounds)';

Latency (ndt1, ndt2): steps from 100ms to mean reaction time

* option-wise: logspace range
* attribute-wise: linespace range

slope (d1, d2): lin-space / log-space 0-1.5

v2 = params.possDiffs(d,1)= difference in amount

v1 = params.possDiffs(d,2) = difference in time

Questions

* Out?

Felix

* Grobes Procedere
* Hypothese: Diffusion Prozess zwischen verschiedenen Boundaries
* Driftrate:
* Attribute-wise:
* Option-wise: Pro Option einen Value, Discounted utility, siehe die k-Formel

Wie setzen wir die Parameter die frei sind?

* DeltaA, deltaT, etc.
* Vergleich mit Parametern
* Finden mit Likelihood-Funktion Einfaches Modell. Das müssen wir simulieren. Nehmen uns ein Set von Parametern, vergleichen die Daten mit den beobachteten (Response, Time)
* Response time in Bins und mit den. Zahl der Bins ist ein degree of freedom – kannst du dir selbst aussuchen.
* Grid-based braucht viele simulierte daten (allCombos)

Kann ich das einfach verwenden oder was Neues bauen?

* Modell
* Fitting ist unabhängig vom Modell (Grit-Search)

Soll ich das Modell verändern?

* 75 Trials, wird schwierig
* Testen
* Stellschrauben: Bins reduzieren

# Modelling

## Slopes

* Comparing BIC for a attribute- and option-wise model. Attribute-wise model wins
* Amount and time Drift Slopes do not correlate -> **distinct contributions**
* Log k correlates to drift slope difference -> the larger the amount (relative to time) Drift slope, the more patient (-k) -> **relating to patience**

## Latencies

* **Shorter latency for amount info**
* Amount- latency vs. time-latency diff relates to log(k) -> If amount info comes first, they are more patient

## Boundaries

* Boundaries: No correlations between discount rate and decision boundaries

## Eye-Tracking and Modelling

* Attribute Index and drift slopes: More time / gaze on attributes, higher slope for attribute
* First fixation correlates to amount (vs. time) latency
* Transitions (Payne Index; positive=option-based transitions). Negative correlation with attribute drift slopes; attribute wise comparisons correlate with amount drift slope; option-wise with time drift slope
* metrics of attention obtained using eye tracking (Supplementary Tables 1 and 2 summarize these results).
* Moreover, markers of the choice process (for example, patterns of gaze transitions, latency ofmattribute integration) were predictive of subject-specific individual differences in patience (see Supplementary Fig. 12 for trial by trial differences in the choice process).
* Bias to attention-wise strategies, however there are attention-wise (for patient people, heuristic to look at amounts and choose the larger) and option-wise (less patient) strategies.