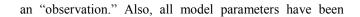
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Abstract



ion as a test of a model's ability to account for data

Prime Sampler (PS) Model

k k

k N N

models'

The TechnionCalibration Dataset

subjected to an experimental setup, the "e condition." In this condition, participants sampled the two

$$(\) = \ (\)/(\ (\) + \ (\))$$

$$(\)$$

$$(\)$$

$$(\)$$

$$Option X$$

Natural Mean Heuristic (NMH) Model

n

k = an observation's sample size. There are no free

Instance Based Learning (IBL) Model

instancei d (< 1.0). The σ paramet sample variability in an instance's activation. $V_{j,t}$ The Coin Toss (CT) Model \dot{J} (2) $x_{i,t}$ participants' individual choice $x_{i, t}$ I Method j Model Execution n nevaluate an "error ratio" (i.e., the ratio of incorrectly (3) . $\overline{2}$ τ

d

 $\gamma_{i t}$

 t_i

σ

d

d

d

the outcome's

e's

 $A_{it} = \sigma \left(\frac{-\gamma_{it}}{\gamma_{it}} \right) + \sum_{t_i \in T_i}^{n} t - t_i^{-d}$

(5)

Results

N

N

N N

N

N N

number of UN cases, the poorer is the corresponding model's

N N

N

N

N

N

N

N

model's calibration

out of 2,370 observations. The PS model's best average error

d

σ

Combinations

d σ

Combinations		Percentage o
from Human Data	Number of	2370
and Model h/m	Observations	Observations

Table 2 shows the results from this model. The model's

eters d=13.6 and $\sigma=0.22$. The

Choice Combinations from Human Data and Model	Average Number of Observations across 5 Run	Percentage of 2370 Observations

Combinations		
from Human	Average	Percentage
Data and Model	Number of	of 2370
H/M	Observations	Observations

's

Next, we evaluated the IBL model's ability to account for

d and σ in the IBL model were found to be 13.6 and

small $\boldsymbol{\sigma}$ value exhibited lesser sample

Model	Parameters	UN Observations	Error ratio
	N		
	d=13.6,σ=0.22		

statistics, the IBL model's performance was better than the

Model	UN Observations	Error ratio

Discussion& Conclusion

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model's ma	References The atomic components of thought
model's strength is in its	Journal of Mathematical Psychology –
	Journal of Risk Uncertainty –
	Journal of Behavioral Decision Mak –
	Psychological Review Vol
	Psychological Review
	Trends in Cognitive Sciences
	Synthese
	?. Cognition –
	– Paper presented at the 6th Annual ACT–R Workshop at George Mason University