

At what **level** does bias occur?

LEARNING

RATING

How does bias occur?

dual learning rates:
 $LR_{conf} > LR_{disconf}$

rating bonus: when conf, $R +/-$ bonus, depending on $Q_i(1)$

differential rating distributions
 $norm(\mu_F, \sigma_F)$ and
 $norm(\mu_U, \sigma_U)$

When is an outcome **confirmatory**?

conf when $|R - Q_i(1)| \leq$ threshold
disconf when $|R - Q_i(1)| >$ threshold

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disconf when $|R - Q_i(1)| >$ threshold

How are **beliefs** represented?

beliefs are $Q_F(1)$ and $Q_U(1)$ with $Q_i(1) \in [1..10]$

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preference = $\max(Q_F(1), Q_U(1))$
conf when choice = pref
disconf when choice \neq pref

beliefs are $\mu_F = Q_F(1)$ and $\mu_U = Q_U(1)$

Which **free parameters**?

- $Q_F(1), Q_U(1)$
- $LR_{conf}, LR_{disconf}$: optional. could also derive from $\Delta Q_i(1)$: larger difference in initial values means larger bias, i.e. larger difference in LRs
- threshold: optional
- inv_temp

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- bonus: optional
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- σ_F, σ_U : optional
- inv_temp