

Erratum

Macho, S. (2002). Cognitive modeling with spreadsheets. *Behavior Research Methods, Instruments, & Computers*, **34** (1), 19-36.

In Table 1, on p. 21, Equation T1 was written incorrectly. The table is printed below, with the equation corrected:

Table 1
Processing Algorithm of the Configural Model of Pearce (1994)

Step	Performed Computation
1	<p>Initialization: Label all units of the configural layer as not active, and set all associative weights to zero.</p>
2	<p>Presentation of the next input pattern: Set the activation values of the input units to the values of the normalized input pattern.</p>
3	<p>Labeling of the configural unit that corresponds to the input pattern: Label the configural unit that corresponds to the presented input pattern as being active, if it has not already been activated.</p>
4	<p>Computation of the activation values of the configural units: Calculate the activation value a_j^{cfg} of configural unit j ($1 \leq j \leq J$) by computing the scalar product, raised to the power of σ:</p> $a_j^{\text{cfg}} = \begin{cases} (\mathbf{a}^{\text{inT}} \cdot \mathbf{w}_j^{\text{cfg}})^\sigma & \Leftrightarrow \text{unit } j \text{ has been labeled active} \\ 0 & \Leftrightarrow \text{unit } j \text{ has not been labeled active.} \end{cases} \quad (\text{T1})$ <p>a_j^{cfg} denotes the activation of configural unit j: $0 \leq a_j^{\text{cfg}} \leq 1$, with the unit representing the input pattern being the sole unit with maximal activation: $a_j^{\text{cfg}} = \cos^\sigma(\varphi)$, where φ is the angle between the vectors \mathbf{a}^{in} and $\mathbf{w}_j^{\text{cfg}}$.</p> <p>$\mathbf{a}^{\text{inT}}$ denotes the transposed normalized input vector.</p> <p>$\mathbf{w}_j^{\text{cfg}}$ denotes the configural vector of configural unit j.</p> <p>σ is a specificity parameter controlling the decrease of activation with dissimilarity between the input pattern and the patterns represented by the configural units (values used for the present simulations: $\sigma = 2$, and $\sigma = 10$, respectively).</p>
5	<p>Computation of the activation values of the output unit: Calculate the activation value a^{out} of the output unit according to the formula:</p> $a^{\text{out}} = \sum_{j=1}^J w_j^{\text{out}} \cdot a_j^{\text{cfg}}. \quad (\text{T2})$ <p>w_j^{out} denotes the weight of the associative connection from configural unit j ($1 \leq j \leq J$) to the output unit.</p>
6	<p>Modification of associative weights: Calculate the weight change Δw_j^{out} of the connection from the configural unit j representing the input pattern to the output node according to the Rescorla-Wagner rule:</p> $\Delta w_j^{\text{out}} = \alpha_j \cdot \beta_k \cdot (\lambda_k - a^{\text{out}}), \quad (\text{T3})$ <p>and add it to the respective associative weight.</p> <p>α_j denotes a saliency parameter specific to the pattern represented by configural unit j [values used for the present simulations: $\alpha = 1$, ($1 \leq j \leq J$)].</p> <p>β_k denotes the learning rate specific to the kth value of the unconditioned stimulus (US) (values used for the present simulations: $\beta_{\text{US}} = \beta_{\overline{\text{US}}} = 0.15$).</p> <p>$\lambda_k$ denotes the kth value of the US (values used for the present simulations: $\lambda_{\text{US}} = 100$, $\lambda_{\overline{\text{US}}} = 0$).</p>
7	<p>Iteration: If there is another input pattern, go to Step 2, otherwise STOP.</p>