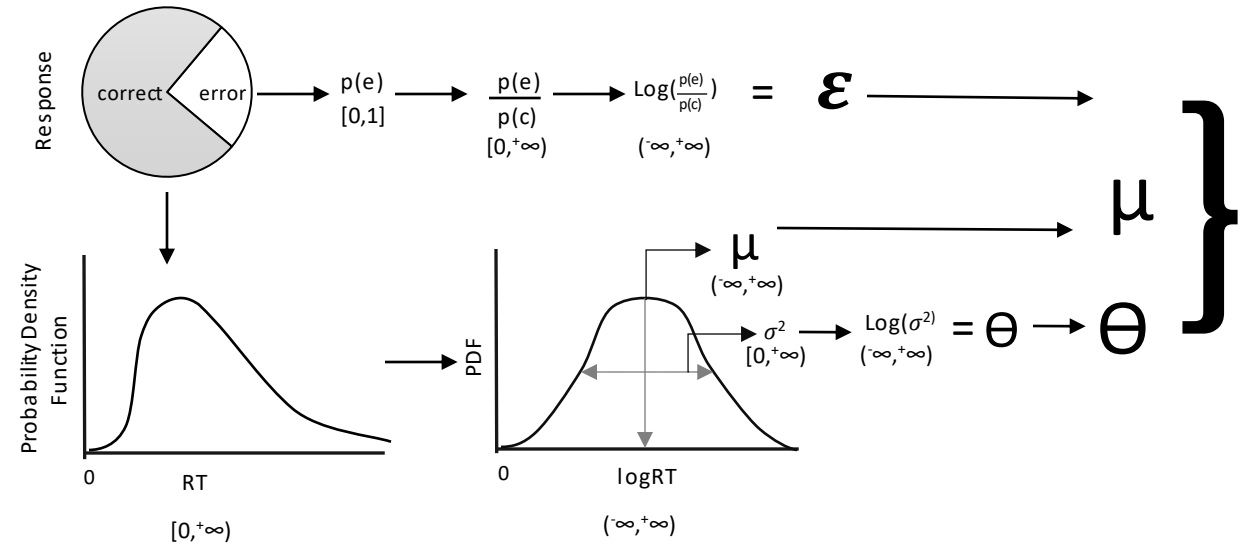


Trial	Y	Z	...	→	ΔI	Δy	Δz	$\Delta y:z$	$\Delta \dots$
1	1	1	...	→	1	-1	-1	1	...
2	2	1	...	→	1	1	-1	-1	...
3	1	2	...	→	1	-1	1	-1	...
4	2	2	...	→	1	1	1	1	...
...
K	Y_K	Z_K	\dots_K	→	1	Δy_K	Δz_K	$\Delta y:z_K$	$\Delta \dots_K$



Regression: $Q_k = \beta_{\Delta I} + (\beta_{\Delta y \dots} \times \Delta y) + (\beta_{\Delta z \dots} \times \Delta z) + (\beta_{\Delta y:z \dots} \times \Delta y:z) + (\beta_{\Delta \dots k} \times \Delta \dots)$

Hierarchical Regression: $Q_{1,x} = \beta_{\Delta I,x} + (\beta_{\Delta y \dots} \times \Delta y) + (\beta_{\Delta z \dots} \times \Delta z) + (\beta_{\Delta y:z \dots} \times \Delta y:z) + (\beta_{\Delta \dots k} \times \Delta \dots)$

$\{\epsilon, \mu, \theta\}$
Regression:

$\epsilon_{1,x} = \epsilon \beta_{\Delta I,x} + (\epsilon \beta_{\Delta y \dots} \times \Delta y) + (\epsilon \beta_{\Delta z \dots} \times \Delta z) + (\epsilon \beta_{\Delta y:z \dots} \times \Delta y:z) + (\epsilon \beta_{\Delta \dots k} \times \Delta \dots)$
 $\mu_{1,x} = \mu \beta_{\Delta I,x} + (\mu \beta_{\Delta y \dots} \times \Delta y) + (\mu \beta_{\Delta z \dots} \times \Delta z) + (\mu \beta_{\Delta y:z \dots} \times \Delta y:z) + (\mu \beta_{\Delta \dots k} \times \Delta \dots)$
 $\theta_{1,x} = \theta \beta_{\Delta I,x} + (\theta \beta_{\Delta y \dots} \times \Delta y) + (\theta \beta_{\Delta z \dots} \times \Delta z) + (\theta \beta_{\Delta y:z \dots} \times \Delta y:z) + (\theta \beta_{\Delta \dots k} \times \Delta \dots)$

