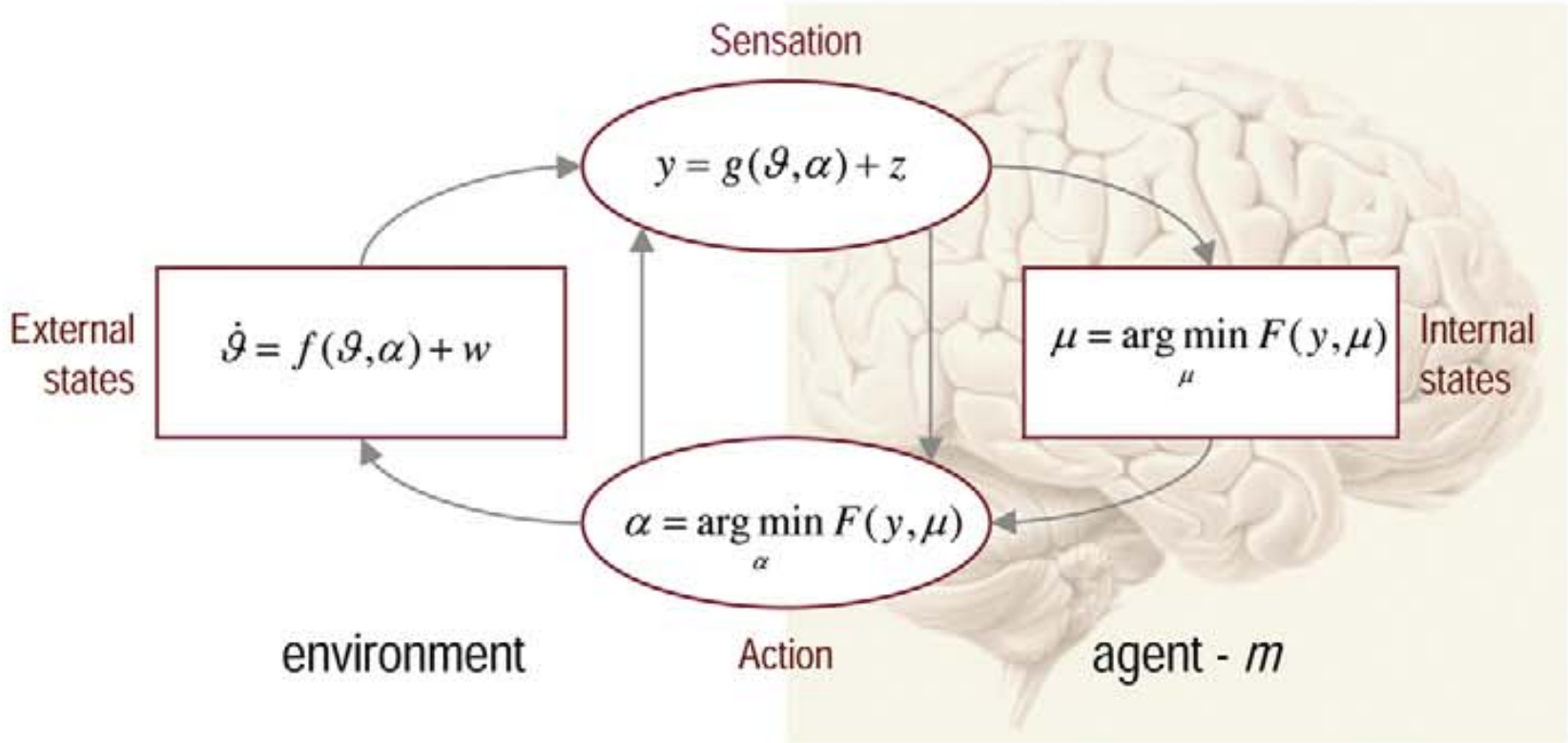

$$F = Energy - Entropy = -\left\langle \ln p(y,\vartheta \mid m)\right\rangle_q + \left\langle \ln q(\vartheta)\right\rangle_q$$

Action to minimise a bound on surprise

$$F = Complexity - Accuracy$$
$$= D(q \,\|\, p(\vartheta)) - \left\langle \ln p(y(\alpha) \mid \vartheta, m)\right\rangle_q$$
$$\alpha = \arg\max_{\alpha} Accuracy$$

Perception to optimise the bound

$$F = Divergence + Surprise$$
$$= D(q(\vartheta;\mu) \,\|\, p(\vartheta \mid y)) - \ln p(y \mid m)$$
$$\mu = \arg\min_{\mu} Divergence$$