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EXTRA CONTENT ONLINE

100 words on reward prediction error

Karl Friston iD

Reward prediction error is like Marmite – you either love it or hate it. I hate it because it commits to a view of the brain that inherits from 20th-century behaviourism and reinforcement learning. When people say dopamine encodes reward prediction error, they are assuming that the brain is in the game of maximising reward. But it is not – the brain updates its beliefs and selects a preferred course of action. On this (planning as active inference) view, the available evidence suggests that dopamine encodes the precision of beliefs about policies – or, more simply, the confidence afforded (subpersonal) plans of action.