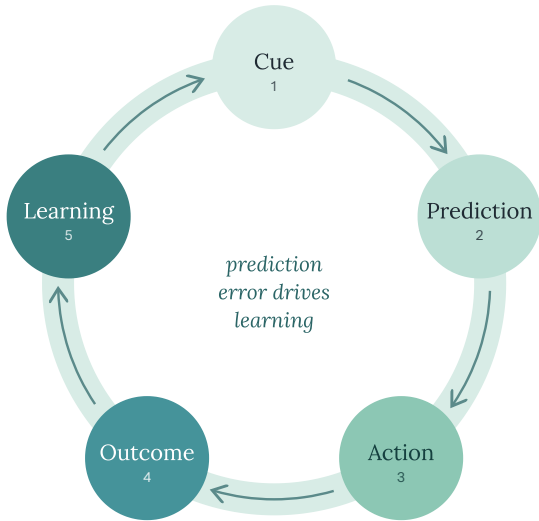


The Reward Prediction Loop

PSYCHOEDUCATION · DOPAMINE, PREDICTION AND HABITS

How the brain learns what to reach for, and how to notice the loop

Dopamine is often called the “pleasure chemical”, but research suggests its role is more about prediction, motivation and learning. The brain constantly predicts how rewarding something will be, then compares that with what actually happens.



Prediction error

the gap between what we expected and what happened



Better than expected

A signal that strengthens the link: “do that again”.



As expected

Little new learning; the prediction already fits.



Worse than expected

A dip that weakens the link over time.

Rewards that are unpredictable, like some notifications or feeds, can keep prediction errors coming, which may make them especially hard to put down.

WANTING

The pull towards something

Anticipation and craving. Research links dopamine more closely with “wanting” than with enjoyment itself.

LIKING

The pleasure of having it

How much we actually enjoy it. Wanting and liking don’t always match, which is why we can crave things we don’t enjoy much.

01 Tracking my loop

notice the gap between expected and actual

Cue what set off the urge	Expected how good	What I did the action	Actually how good	Compared better · same · worse
	/10		/10	☐ + ☐ = ☐ -
	/10		/10	☐ + ☐ = ☐ -
	/10		/10	☐ + ☐ = ☐ -
	/10		/10	☐ + ☐ = ☐ -
	/10		/10	☐ + ☐ = ☐ -

02 Loops in my life

tick what fits

Loops that can pull me in

- ☐ Scrolling ☐ Notifications ☐ Checking messages
☐ Snacking ☐ Online shopping ☐ Gaming
☐ Refreshing news

Loops that tend to nourish me

- ☐ Movement ☐ Time with people ☐ Nature
☐ Making something ☐ Learning ☐ Music

A note on the science

These are simplified descriptions of complex brain systems. Dopamine is involved in many functions, and popular ideas such as a “dopamine detox” go beyond the evidence. The aim here is noticing patterns, not judging yourself.

One loop I’d like to notice more, and what I might try

SOURCES

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