

INYUVATE

ESSAY

# When the Environment Learns You Back

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Much of the discussion around misinformation begins with belief. Why do people accept things that are false? Why can a correction struggle to dislodge an idea that has already taken hold? Why do some stories travel much further than others?

Those questions matter, but before we decide whether something is true, it has already had to reach us and become important enough to hold our attention. It may have appeared several times. It may have been framed through fear, anger or moral urgency. We may have seen thousands of other people reacting to it. None of these qualities establishes accuracy, yet each can affect how familiar, prominent or significant something has become by the time we stop to evaluate it.

Repetition offers a good example. A statement we have seen before is generally easier to process, and repeated statements have been found to receive higher ratings of truth than unfamiliar ones. Emotionally significant content can also gain priority in attention, while visible reactions from other people can add to the sense that something deserves notice.

Some events genuinely deserve alarm, anger or urgency. Emotional force and evidential strength are different properties, and one does not establish the other.

That distinction is especially visible in the way information now reaches us.

A twenty-second video can present a frightening story, a striking image and an apparently decisive explanation almost instantly. Its claims may be false or misleading, yet its emotional force can make an immediate impression. A careful analysis of the same issue may draw on larger datasets, explain how the evidence was gathered, distinguish association from causation, acknowledge uncertainty and show where the limits of current knowledge lie. It may be far closer to the truth and considerably harder to absorb.

The short video can therefore leave the stronger impression even when the detailed analysis is much better supported. Length and emotional force tell us nothing on their own about accuracy: a short video can be entirely correct and a long report can be poor. The asymmetry lies elsewhere. Truth and impact do not necessarily arrive with the same force.

Part of that imbalance comes from complexity itself. Reliable explanations often have to preserve qualifications, uncertainty and competing possibilities because reality is rarely tidy. Misleading information can remove much of that difficulty. One cause, one culprit or one danger can be understood in seconds. A more accurate account may demand time precisely because it refuses to simplify beyond what the evidence allows.

These qualities of information and presentation meet a brain already shaped by what has been learned before.

We do not have to make sense of every new situation from scratch. If we did, even ordinary life would become extraordinarily inefficient. A familiar face, a tone of voice, the sound of something falling behind us, the sight of a car moving towards a crossing: we make sense of situations like these partly because previous experience has taught us what tends to happen, what may matter and what might require a response.

In neuroscience, predictive processing offers one way of understanding this. The word prediction can be misleading. It does not mean consciously guessing what will happen next. It refers to the way the brain uses patterns learned from previous experience to anticipate what is likely to be happening now and what may matter next. Incoming information is interpreted in relation to those expectations, while what actually happens can confirm them, modify them or lead them to change. This gives perception continuity: we do not have to reconstruct the meaning of the world from zero every few seconds.

Much of that activity takes place without our being consciously aware of it. Before there is a clear thought such as *this looks dangerous* or *I don't trust this*, physiological readiness may already have shifted. Attention may already be favouring certain features of what we are seeing. The situation may already have acquired an affective tone — a more basic sense of unease, urgency or reassurance — before a clear emotion is recognisable to us.

These processes do not occur as a fixed chain. Physiological state, attention, significance and interpretation continue to influence one another as more information becomes available, and some of that wider organisation can be developing before we can clearly say what we think or feel about it. A recognisable emotion or thought may therefore be one of the first parts of the process to become obvious to us, rather than where the process began.

That matters for misinformation because what appears in front of us does not meet only a collection of already formed opinions. Previous learning can affect what stands out, what initially seems plausible and what quickly acquires significance even when we have never formed a clear view on the particular subject.

Confirmation bias becomes especially relevant once an interpretation has begun to settle: information consistent with what already seems likely may be easier to seek out, accept or remember, while contradictory material can receive greater scrutiny. But the process does not begin there. Before there is a definite position to confirm, earlier learning is already contributing to how new information is received, while repetition, emotional presentation and social reaction add influences of their own.

A misleading idea can gain traction gradually without any single exposure feeling decisive. One version becomes familiar. Another is emotionally powerful. A third seems to come from a different source, even though apparently independent accounts may ultimately be repeating the same underlying claim. The topic begins to occupy more attention, and a particular explanation becomes easier to recognise and may begin to seem more plausible without yet being accepted as true.

Personalised digital environments add another layer because some of our behaviour can influence what is shown next.

If a disturbing video holds someone's attention, they may watch it to the end, search for more on the subject, open the comments or follow a related link. Those actions do not reveal why the video held their attention. Agreement, disbelief, anxiety, curiosity and outrage can produce some of the same observable behaviour.

Recommendation systems can use signals such as previous choices and patterns of engagement when deciding what to present later. What someone did before can therefore contribute to what they are shown next, without revealing what they privately thought about it. Later exposure can support an earlier interpretation, complicate it or make a different one more plausible.

When related material appears again, the circumstances have changed. For the person, the topic is more familiar. It may already carry emotional associations, and certain explanations may now seem more plausible or more worthy of scrutiny. At the same time, behaviour generated by what came before may have contributed to the selection now being presented.

### The environment can be learning from behaviour while the person continues learning from the environment.

This is where personalisation becomes more consequential than the familiar observation that looking at cars produces more car adverts. When the material concerns health, conflict, danger, identity, politics or anything else capable of carrying substantial emotional significance, the selection of what comes next interacts with processes already involved in deciding what deserves notice and what seems important.

None of this requires a single decisive moment. No message has to overpower reason, and no algorithm has to determine belief. One interpretation can become progressively easier to sustain because familiarity, emotional force, prior expectation, social reaction and repeated exposure are all contributing to the conditions in which later information is considered.

Source quality, expertise and careful analysis matter enormously here. But stronger evidence does not arrive with any guarantee that it will make the stronger impression.

Sometimes good judgement therefore requires allowing a slower, more complicated explanation to outweigh a simpler one that arrived first and felt more convincing.

The more important question is whether better evidence can still change the weight that an earlier explanation has already acquired.

Much of what gives information its initial weight may develop before we have clearly decided what we think. That is why the capacity to remain responsive to evidence has to begin earlier too.

Good judgement depends not only on what information reaches us, but on whether better information can still matter when it does.

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#### ABOUT INYUVATE

INYUVATE is a structured training programme that develops the ability to recognise and work with the processes through which human experience is organised.

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