



## Psychological Reality: Why We See the World the Way We Do

### Video Transcript

#### **A model of reality**

We have reached the end of this course. And we return to the concept that has been both the title and the guiding thread of this course: A Model of Reality. At its core, a model is a simplified, structured description of a system or phenomenon – something that allows us to think about the world in a meaningful way. But how do we evaluate whether a model is good?

A naive question is to ask whether it accurately represents the underlying reality, that is whether it is veridical. In the first chapter, we began our journey with precisely this epistemological question: Is our reality – our model of the world – true? Do we perceive the world the way it is? We found that the answer depends on what we mean by “real.” Objective, phenomenal, perceivable or credible – each perspective reveals a different facet of our relationship to the world.

In Chapter 2, we learned that much of how we perceive and access the world is shaped by our evolutionary history. And that this history biases us toward seeing the world in ways that are adaptive rather than accurate – better safe than sorry. Building on this insight, we traced how our cognitive abilities evolved over our developmental history. We examined the foundational principles we share with other animals, as well as those capacities that make humans unique.

Lastly, we attempted to reverse-engineer some of our evolved cognitive abilities by developing mathematical models that could simulate the processes occurring in the brain – processes that constitute the way we experience the world around us. But here we had to be careful not to confuse our models with our scientific theories. A model that predicts behavior well is useful. But that does not mean that the mind actually works this way.

The physiologist Arturo Rosenblueth and the mathematician Norbert Wiener once captured this beautifully: “The best model of a cat is another cat, preferably the same cat.” This observation cuts to the heart of any scientific model’s limitations. Our models can approximate certain properties of a system. But they are always simplifications. A perfect computational simulation of the mind might capture behavior well, yet something essential will always remain outside the model.



Nevertheless, we have come to understand a great deal about how the mind works. Fueled by this knowledge, we have begun to extrapolate, to construct artificial intelligence, and to design astonishing algorithms that are reshaping the world in which we live. For all our progress, however, the mind itself remains a mystery. We are far from fully understanding it. And perhaps we never will. The statistician George Box famously stated: “All models are wrong, but some are useful.” Across both our evolutionary history and in contemporary cognitive science, we build models for a purpose: sometimes for survival, and other times for us to better understand an idea.

So, if nothing else, we must at least acknowledge that our representations of reality are never final. Neither yours nor mine are true in any absolute sense. Our brains do their best to infer the world outside us, and the minds of others, from the information our senses and simulations provide. This reveals both the fragility and the elegance of our world models.

If we remain aware that all our models are limited, then we stay ready to revise them as we learn more. This is something worth keeping in mind when interacting with others.