



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

Video Transcript

A model of reality

It seems to us as though the world just pours itself into our minds through the windows of our eyes, ears and other sensory organs. But is what we see, hear, and feel truly real? Does what we perceive reflect the true nature of the external world?

The short answer is no, not exactly. From the very first moment, our brains transform incoming sensory signals and actively generate our models of reality.

My name is Fabian Mueller. I am a cognitive neuroscientist. I will guide you through this course to explore how scientists think that we create our realities.

We will approach this question predominantly from a psychological perspective. But we will also draw on insights from philosophy, evolutionary biology, and cognitive science. We will delve into the cognitive and motivational foundations of perception and the evolutionary constraints that have shaped the way we interpret our experiences.

The course is organized into four main parts.

In the first chapter, we will explore different perspectives of the term "reality" and how these align with the distinct philosophical positions underpinning different psychological schools. We'll establish our philosophical starting point: a position called critical realism: that is the idea that an objective world exists, but our access to it is shaped by our biology and experience.

Chapter 2 explores how evolutionary pressures have shaped our perceptual systems, often prioritizing survival at the expense of accuracy. We'll look at the idea that perception might work more like a user interface than a window onto reality. And we'll examine how adaptive biases shape what we believe about the world.

In Chapter 3, we will learn about key milestones in the evolution of cognition. We'll trace the progression from basic automatic responses, such as reflexes in primitive organisms, to more complex behaviours.



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For example, we will learn how conditioning can lead to the development of superstitious behaviours in pigeons, how apes solve problems through insight, and how some mammals demonstrate the capacity to know what others know. We will conclude by exploring uniquely human cognitive abilities, as well as their role in shaping how we think and interact with the world.

In Chapter 4, we dive into cognitive neuroscience. We will ask: what computations might the brain perform when we perceive an object? And we explore frameworks that describe the brain not as a passive receiver, but as an active prediction machine.

The course concludes with reflections on future directions in cognitive science, considering how our refined understanding of human reality can deepen our understanding of ourselves and how we interact with one another.