

## Lying Eyes: The Fictional Roots of Facial Recognition

Throughout history, people have often believed in things based on superstition. But today, belief typically requires some sort of proof, which is a concept tied to the scientific method. Science is about testing ideas and seeing if we can prove them wrong—this is called falsifiability. If something like astrology can't be proven wrong, then it doesn't really fit within the scientific framework.

### Science vs. Pseudoscience

By definition, a scientific theory is something that has been tested repeatedly and stands up to scrutiny. Astrology, for instance, has stuck around for centuries, but it's considered pseudoscience because we can't test or disprove it in the way we do with scientific theories. In contrast, real scientific theories rely on data and evidence, and they can be proven wrong if new information comes to light.

### Pathognomy and Physiognomy

In the past, people believed they could figure out someone's personality or qualities just by looking at their face or expressions. This idea was called **pathognomy**. There was also **physiognomy**, which went even further, suggesting that you could judge someone's character based solely on their appearance. While these ideas have been debunked, some of their legacy lingers in modern AI facial recognition technologies.

### Evolution and Natural Selection

Charles Darwin, in his book *The Expression of the Emotions in Man and Animals*, talked about how humans and animals evolved the ability to display and read emotions. According to Darwin's theory of natural selection, animals that develop useful traits through random mutations are more likely to survive and pass on those traits to future generations. On the flip side, animals with traits that don't help them survive won't make it.