

## Confirmation Bias

by Francis Bacon, from *Novum Organum* (1620)

---

46. Once a human intellect has adopted an opinion (either as something it likes or as something generally accepted), it draws everything else in to confirm and support it. Even if there are more and stronger instances against it than there are in its favor, the intellect either overlooks these or treats them as negligible or does some line-drawing that lets it shift them out of the way and reject them. This involves a great and pernicious prejudice by means of which the intellect's former conclusions remain inviolate.

A man was shown a picture, hanging in a temple, of people who had made their vows and escaped shipwreck, and was asked 'Now do you admit the power of the gods?' He answered with a question: 'Where are the pictures of those who made their vows and then drowned?'

It was a good answer! That's how it is with all superstition—involving astrology, dreams, omens, divine judgments, and the like—Men get so much pleasure out of such vanities that they notice the confirming events and inattentively pass by the more numerous disconfirming ones. This mischief insinuates itself more subtly into philosophy and the sciences: There, when a proposition has found favor it colors other propositions and brings them into line with itself, even when they in their undisguised form are sounder and better than it is. Also, apart from the pleasure and vanity that I have spoken of, the human intellect is perpetually subject to the special error of being moved and excited more by affirmatives than by negatives; whereas it ought to have the same attitude towards each. Indeed, when it is a matter of establishing a true axiom, it's the negative instance that carries more force.

