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THE RISE OF PSEUDOSCIENCE

In recent years, science communication has become a mass-consumption phenomenon, especially through platforms like YouTube. To reach wider audiences, scientific language is simplified, and the processes behind discoveries are often omitted in favor of highlighting the most striking results. This creates a distorted image of science, where complexity becomes superficial and rigor becomes optional. In this context, pseudoscience is on the rise. They present themselves as valid by borrowing the prestige of being "scientific," even though they lack real foundations. This text analyzes how the media has influenced that transformation and its consequences.

Mass media platforms like YouTube have turned science communication into a business. Scientific outreach uses a specific, technical language. But to sell it to the general public, it's necessary to adapt scientific terms into simpler, more familiar ones that people can understand.

This adaptation affects not only the language but also how science is portrayed: audiences are shown only the results of scientific research, without explaining or emphasizing the processes involved in generating knowledge. The reason is that science must seem "interesting" to the general public, who only focus on the results, not the prior work. The problem is that the public sees only one aspect of science—the most spectacular—but this doesn't mean they learn more about it. On the contrary, they get a distorted version of science.

Historically, science communication has been key to many social transformations. It also helped break the monopoly of knowledge production held by universities, opening the door for many individuals to engage in research and discovery. But this also had a side effect, which I will call "epistemological relativism." What does this mean? It means that anyone, without sufficient knowledge, can question science—and even question what it means for something to be considered "scientific."

So, if science is accessible to ordinary citizens, what they get is a simplified, superficial, and marketable version of it [Chaves, 1–5]. This leads many people to believe they have

scientific viewpoints and that they can produce scientific knowledge. And so, pseudoscience emerge.
Pseudoscience is sets of ideas that claim to be scientific but are not accepted by the scientific community. However, thanks to mass media, many people believe these pseudoscience is genuinely scientific, despite their weak objective foundations.

What factors contribute to the rise of pseudoscience?

We can start by talking about Quantum Mechanics. Many aspects of quantum mechanics are still theoretical, though fascinating. Its popularization and simplification for the general public has given rise to pseudoscientific associations, such as New Age philosophy. Certain aspects of this philosophy are "explained" through non-scientific interpretations of quantum mechanics, which stem from oversimplified versions of science [García Molina, 1–2, 8–10] [Marcos, 8–14].

Another factor is the widespread distrust of the scientific community—an outcome of the loss of the monopoly that universities and scientists once held over scientific production.

Pseudoscience encourage the oversimplification of the concept of "science"—what it is and what should be considered scientific. The negative result is an extreme scientific relativism, in which objective scientific evidence no longer matters, and each person decides what is or isn't scientific [Marcos, 30–35].

Ironically, for something to be profitable today, it must appear "scientific." And since many pseudoscientific disciplines lack empirical and/or scientific validation, they appropriate the term "scientific" and apply it to themselves, referring to unverifiable sources and appealing to the magical or shallow reasoning of the general public [Meijome, 1–3].

What we're really talking about here is faith. In what sense? In the sense that today, science functions like a religion. Science decides what is real and what is not. It defines what objectivity means and what subjectivity is. Just like in the past, many ideas were imposed on society "in the name of God," with phrases like "we must do it in the name of the Cross" or "God allows it," by people claiming to be prophets—today, the rise of pseudoscience follows a similar logic. Before, the justification was God. Now, the justification is science (or rather, that something is labeled as "scientific").

Many people once doubted the Church, leading to the emergence of Anglicanism, Calvinism, Lutheranism—each based on individual interpretations deemed fairer (or more convenient) than others. A similar thing is happening now with science. When the label "scientific" becomes so lightweight and volatile—no longer requiring objective support—it loses its value [García Molina, 9].

The relativity of truth has two consequences: first, a common agreement is necessary regarding certain perspectives on reality, because we must live in a society governed by shared rules. Doubting everything is a necessary task (many discoveries have come from doing so), but doubting science requires a great deal of study, discovery, and investigation. If anyone believes they can challenge science just by watching a five-minute YouTube video—one that explains in mere minutes a result that took years to uncover—then we are witnessing a reality that is gradually losing its objective foundation and turning into total relativism, where each person defines their own reality however they wish, without any need to reach common ground with the rest of society.

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