

Some overlooked basic principles

In a collision between objects A and B in an isolated system, the momentum lost by object A will be equal to that gained by object B. So says the principle of momentum conservation. This fundamental law of physics has become so embedded in our psyche that it seems natural to apply it to situations outside physics. Muggings, for example. Object A is walking home when object B confronts it with the words “Give me all your money.” The outcome, per the conservation law, is that object B leaves with the money, while object A goes home empty-handed. Yet many other principles with applications to daily life have been sadly overlooked by physicists, despite their omnipresence. As a corrective, here are a few examples.

The first new principle is the ubiquitous Was That My Exit Principle. To understand how this principle works, imagine you are cruising down the motorway on your way to the town where your Aunt Sarah lives, the nearby laboratory of one of your collaborators, or a pleasant bit of countryside. Seated next to you is – depending on your destination – your spouse, your colleague or your pet goat. You know you need to get off at Junction 2B; indeed, your cousin William, your collaborator’s website or your map (which the goat is, unfortunately, eating) has told you as much. But as you approach the region where you know the junction must be, the only sign you can see is obscured by trees. Was that your exit? 2B, or not 2B?

Your human companions are unsure, and the goat, despite its incessant bleating, is not giving up any information. Pinning down the exit’s precise location adds somewhere between an extra 20 minutes and an hour to your trip. During this time, your spouse threatens you with divorce, your colleague pretends to re-read a paper from 1987, and your pet goat starts munching on the car manual. But there is no remedy. It is simply a law of nature, and the best we can do is to allow for it.

Moving on to a more sensitive area of social interaction, let us look at the Confounded Browsing Principle. It is a little-acknowledged fact that in any bookshop, chemist’s or novelty store there exists a positive correlation between the desirability of the item you wish to buy and the probability that someone else will be standing right in front of it, obscuring your view. It does not matter if the shop is grand or humble, full or empty, but preliminary evidence does suggest that the correlation becomes stronger if the object you seek is of an embarrassing nature.

The scenario plays out thusly. You are in the chemist’s, searching for that perfect “family planning” product. In front of you, apparently gazing intently at an array of laxatives, is your neighbour from down the street – a sweet old lady you know by sight, but with whom you have only a nodding acquaintance. There you are, joined by your mutual interest in aisle C. You wait, whiling away the time by reading the labels on the laxatives. But it is no use. She does not budge. After some minutes, it dawns on you that the Confounded Browsing Principle is universal: if your neighbour is confounding you, you must also be preventing *her* from completing *her* purchase. You look up and find to your horror that you are standing in front of something *even*



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Was that your exit? Pinning down the exit’s precise location adds up to an hour to your trip. But there is no remedy. It is simply a law of nature

more embarrassing than your own intended acquisition. Within seconds, the situation collapses into a black hole of mutual humiliation and you are both forced to quit the aisle entirely.

While the paralytic power of that principle is impressive beyond measure, it has stunningly few practical applications, so let us conclude with something more useful: the Narcissistic Accidental Causality Principle. Not to be mistaken for its close cousin, the causality principle, this law holds that no matter where you are in space or time, if something goes wrong, it will surely be your fault.

The word narcissism is, admittedly, a bit misplaced here, because rather than indicating a loving preoccupation with self, it is more an indictment of the same. Say, for example, you went shopping and forgot to buy the necessary butter, milk or other key ingredient for dinner. You have an excuse in the form of a magnitude-6.0 earthquake, which happened to strike while you were at the market. Nevertheless, dinner is still ruined, and your spouse, partner or friend is livid. You can argue that the earthquake was out of your hands, but that line of argument is beside the point. You forgot, so you caused the ruination of a perfectly good meal. It is your fault.

Of course, I could go on. The truth is, there are almost as many principles as there are ways humanity has found to undermine the millions of years of evolution that have led us to our current state of exquisite consciousness. I could, for example, write about the I Really Wish I Hadn’t Kept Humming “Take Me to the River” at a Crocodile Survivors Anonymous Meeting Principle, or the Did I Really Just Send that E-mail to my Boss Principle or even the Principles, Schminciples – Dismissing a Revolutionary Insight Through Smug Arrogance Principle, among many others. But as we all struggle to keep our heads above the ever-rising waters of cascading principles, the Conservation of Space Principle prevents me from completing the list.



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