

The Age of Enchantment Redux

One of the great stories of modernity is the story of explanation.

The Enlightenment inherited a world filled with things that happened without anyone knowing why. Disease could be understood as punishment, curse, imbalance, or fate. Thunder could be the voice of a god. A failed harvest could be attributed to forces beyond human comprehension. The great achievement of modern science was not simply to accumulate knowledge, but to establish the conviction that the world was, at least in principle, intelligible. Mystery became something that could eventually be converted into explanation.

From this emerged a characteristic sequence of modern civilization: observe, explain, predict, control, create. We understand the principles governing a phenomenon and then use that understanding to intervene in the world. The bridge is an obvious example. We do not merely discover that a particular arrangement of materials happens to support weight. We develop theories of forces, stresses, materials, and structures, and those theories become the basis for building bridges elsewhere. Medicine followed a similar trajectory. Disease was progressively removed from the realm of fate and brought into the realm of mechanism. If we understand what causes a disease, we can eventually intervene against it.

Generative AI introduces a strange possibility. It does not necessarily abolish this sequence. It reverses it. We can increasingly imagine a process in which something is generated, tested, shown to work, deployed, and only afterward explained. A system may discover a molecule that treats a disease more effectively than existing drugs. We can test the molecule and establish that it works. We can reproduce the result. But we may not be able to explain precisely why it works.

This is not entirely new. Human beings have always lived among things they do not understand. Most people do not know how an MRI works, how the electrical grid is balanced, or how a semiconductor functions. But modern civilization has solved this problem through a division of knowledge. I may not understand the technology, but someone does. There are physicists, engineers, physicians, and scientists who can in principle provide the explanation. The black box has an expert behind it.

AI potentially changes this arrangement. The important difference is not simply that I do not understand. It is that I may ask who does understand, and the answer may be

nobody. We may have created something whose performance can be demonstrated without possessing a corresponding humanly intelligible account of its operation. The problem is therefore not merely the familiar black box. It is the possibility of a black box without an expert standing behind it.

This changes the relationship between knowledge and action. The traditional scientific ideal assumes that understanding provides the bridge between knowing and doing. AI suggests that we may increasingly act successfully without first understanding. We can discover what works before we know why it works.

Karl Popper is useful here because he reminds us that scientific knowledge is always provisional. Scientific theories are conjectures subjected to criticism and testing. Yet there is an important difference between having a provisional explanation and having no adequate explanation at all. A theory allows us to generalize beyond what we have already observed. It gives us some basis for anticipating what will happen when conditions change. An AI system may instead give us a pattern of successful performance whose limits we discover experimentally.

The result could be an epistemology based increasingly on performance. We trust the system because it works. We ask less often, "Why does this work?" and more often, "Does this work?" We then ask under what conditions it works and how reliably we can make it work. Explanation becomes secondary to performance.

French philosopher Gilles Deleuze offers another way of thinking about this transformation. Western thought has often imagined creation as the realization of a form that exists beforehand. The architect has the blueprint and the builder realizes it. Deleuze's emphasis on becoming, difference, multiplicity, and emergence suggests a different picture. AI can explore enormous spaces of possibility without knowing beforehand what the solution will look like. We specify the problem, generate possibilities, test them, and retain what works. The solution emerges from the process rather than being fully conceived in advance.

The engineer therefore begins to resemble an experimentalist. The important knowledge is no longer necessarily knowledge of the object itself, but knowledge of the process through which useful objects can be discovered. There is something almost evolutionary about this. Variation occurs, possibilities are tested, and successful forms are retained. Engineering begins to resemble selection rather than construction from a blueprint.

This could also reverse the traditional relationship between science and engineering. We normally imagine science discovering principles and engineering applying them. But AI could increasingly produce things that science must subsequently struggle to understand. Instead of explanation preceding creation, creation can generate the

phenomena that demand explanation. The sequence becomes build, observe, explain rather than explain, build.

The political consequences may be even more important. Michel Foucault showed that knowledge and power cannot easily be separated. Modern institutions do not simply possess knowledge; they use systems of knowledge to classify, judge, regulate, and govern people. AI introduces the possibility that decisions affecting human beings will increasingly be made by systems whose internal reasoning cannot be completely reconstructed.

Imagine being denied a loan because an algorithm has determined that you represent a high risk. You ask why. The institution tells you that the model detected patterns associated with default. You ask which patterns. The institution cannot give you a complete answer because the system itself does not produce one that can be translated into a human explanation.

The problem is now not merely technical. It is political. Explanation is connected to accountability. A judge explains a ruling. A physician explains a diagnosis. A government explains a policy. What happens when a decision can be shown statistically to be better than human decisions but nobody can fully explain why the system reached that particular conclusion? We could arrive at a world in which decisions are operationally successful without being intellectually accountable.

This is where Max Weber's idea of disenchantment becomes particularly interesting. Modernity progressively replaced magical explanations with calculation, administration, and technical reason. The world became less mysterious because phenomena were increasingly understood through mechanisms rather than supernatural agency. AI could produce a peculiar reversal. The world may become more technically manipulable while becoming less intelligible to the people who inhabit it.

This does not mean that gods and spirits will return. Something more peculiar may happen. We may experience a form of technological enchantment. People will interact with systems that predict, diagnose, recommend, design, and decide. They will know that these systems are made of mathematics, data, and computation, yet the systems may appear almost oracular because they repeatedly produce answers that no human being can derive.

The resulting superstition, if it appears, will probably not be traditional superstition. It will be a sort of *operational superstition*. "The algorithm knows." "The system sees something we cannot see." "Trust the model." These statements do not necessarily express belief in magic as such. They express instead submission to a demonstrated capacity that exceeds human understanding. The machine is not supernatural. It is

simply too complex for us to follow. Or perhaps it is supernatural, if we go back and redefine “supernatural” to be all that which we cannot explain?

Perhaps this is why the real novelty of AI is not that it surrounds us with black boxes. We have always lived among black boxes. The novelty is that we may increasingly lose the comforting assumption that someone, somewhere, possesses an explanation. The refrigerator has an engineer. The airplane has an engineer. The drug has a pharmacologist. But imagine a chain in which an AI designs another AI, which designs a material, which produces a drug, which is tested by another AI, and nobody can narrate the complete causal chain in human terms.

We would then inhabit a world filled with things that are artificial without being intelligible *by anyone*.

That could produce a profound transformation in our conception of knowledge.

The Enlightenment made explanation the bridge between understanding and action. AI may allow action to leap over that bridge. We can increasingly create first and explain later.

The paradox is that this may make civilization both more rational and more enchanted. Our machines will become more precise, our measurements more sophisticated, our predictions more accurate, and our interventions more powerful. At the same time, the systems producing these achievements may become increasingly opaque.

We may therefore know more while understanding less.

More precisely, civilization may acquire an extraordinary capacity to act without acquiring a proportional capacity to explain its actions.

Of course, the Enlightenment did not abolish mystery. It built institutions for overcoming it. The age of AI may give us machines that work successfully in the space left behind when those institutions can no longer supply explanations that humans can digest. The machine works. The treatment works. The prediction works. The design works. The decision works. And we ask the question that modernity taught us to ask: why?

There may be an answer. But increasingly, there may be cases in which nobody can give us the answer.

That is the possibility of a new kind of enchantment: not a world in which things work because they are magical, but a world in which things appear magical precisely because *they work and nobody can completely explain how*.