Rick Rubin: excerpt from 'The Creative Act: A Way of Being'

Beginner's Mind

Some three thousand years ago in China, the strategic board game Go was developed. Some believe warlords and generals based it on the stones they'd place on maps to determine their battle plans. Besides being the oldest continually played board game in human history, it's also one of the most complex.

In modern times, beating this game became known in the artificial intelligence community as the holy grail. Since the number of possible configurations on the board is larger than the number of atoms in the universe, it was believed computers didn't have the processing power needed to beat a skilled human player.

Rising to the challenge, scientists built an artificial intelligence program called AlphaGo. The program learned to play by teaching itself, studying more than 100,000 past games. It then played against itself over and over until it was ready to challenge the reigning grandmaster of the game.

In move 37 of the second match, the machine was faced with a decision that would determine the way the rest of the game would be played. There were two apparent choices to be made. Choice A was the kind of move that would signal the computer was playing a game of offense. Choice B would signal it was playing a defensive game.

Instead, the computer decided to make a third move, a move no one steeped in the game had ever made in thousands of years of play. "Not a single human player would choose move 37," one commentator said. Most thought it was a mistake or simply a bad move.

The grandmaster playing against the machine was so taken aback, he stood up and walked out of the room. He eventually returned, not with his usual confident composure but visibly shaken and frustrated by the experience. In the end, AlphaGo won the game. And that never-been-seen-before move, experts said, was the one that turned the course of the game in favor of the AI.

In the end, the computer won four out of five matches, and the grandmaster permanently retired from competition.

Upon first hearing this story, I found myself in tears, and confused by this sudden swell of emotion. After further reflection, I realized that the story spoke to the power of purity in the creative act.

What was it that allowed a machine to devise a move no one steeped in the game had ever made in thousands of years of play?

It wasn't necessarily its intelligence. It was the fact that the machine learned the game from scratch, with no coach, no human intervention, no lessons based on an expert's past experience. The AI followed the fixed rules, not the millennia of accepted cultural norms attached to them. It didn't take into account the three-thousand-year-old traditions and conventions of Go. It didn't accept the narrative of how to properly play this game. It wasn't held back by limiting beliefs.

And so this wasn't just a landmark event in AI development. It was the first time Go had been played with the full spectrum of possibilities available. With a clean slate, AlphaGo was able to innovate, devise something completely new, and transform the game forever. If it had been taught to play by humans, it most likely wouldn't have won the tournament.

One Go expert commented, "After humanity spent thousands of years improving our tactics, computers tell us that humans are completely wrong . . . I would go as far as to say not a single human has touched the edge of the truth of Go."

To see what no human has seen before, to know what no human has known before, to create as no human has created before, it may be necessary to see as if through eyes that have never seen, know through a mind that has never thought, create with hands that have never been trained.

This is beginner's mind—one of the most difficult states of being to dwell in for an artist, precisely because it involves letting go of what our experiences have taught us.

Beginner's mind is starting from a pure childlike place of not knowing. Living in the moment with as few fixed beliefs as possible. Seeing things for what they are as presented. Tuning in to what enlivens us in the moment instead of what we think will work. And making our decisions accordingly. Any preconceived ideas and accepted conventions limit what's possible.

We tend to believe that the more we know, the more clearly we can see the possibilities available. This is not the case. The impossible only becomes accessible when experience has not taught us limits. Did the computer win because it knew more than the grandmaster or because it knew less?

There's a great power in not knowing. When faced with a challenging task, we may tell ourselves it's too difficult, it's not worth the effort, it's not the way things are done, it's not likely to work, or it's not likely to work *for us*.

If we approach a task with ignorance, it can remove the barricade of knowledge blocking progress. Curiously, not being aware of a challenge may be just what we need to rise to it.