



Book The Watchman’s Rattle

Thinking Our Way Out of Extinction

Rebecca D. Costa
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Recommendation

Sociobiologist Rebecca D. Costa asserts that modern challenges, like society’s rapidly snowballing complexity, are outstripping humankind’s evolutionary cognitive abilities. One symptom of this problem is that people are addressing the world’s most pressing issues by wielding rigid, misguided beliefs, or “supermemes.” Costa, who takes her title from an 1865 history of the Boston police, warns that the modern world could go the way of past great civilizations unless people improve their mental functioning. She shows how strategies that helped humans survive in antiquity – like heavy calorie consumption – have become modern problems. Now, humanity can’t wait any longer for evolution to bail it out. People must foster the brain’s latent power of insight to tap into discovery and innovation without waiting for crises to force their thinking to expand. Costa is engaging and persuasive, despite her motivational speaker’s tone. Her message includes advice on how improving your personal brain fitness could also improve society’s future. While always politically neutral, *BooksInShort* recommends her original insights to policy makers, executives, HR experts, scientists and readers seeking fresh solutions.

Take-Aways

- The world’s problems are proving too difficult to handle, in part because people lack the necessary evolutionary tools, such as greater cognitive capacity.
- Civilizations doom themselves when they substitute beliefs for facts.
- Five common beliefs – “supermemes” – threaten society’s ability to solve its problems.
- The five supermemes are: “irrational opposition,” “personalizing blame,” “counterfeit correlation,” “silo thinking” and “extreme economics.”
- These unhelpful “group think” behaviors spring from biological survival strategies.
- Society’s biggest problems are systemic, but people seldom address them systemically.
- Profit has become the standard for assessing personal and societal merit.
- Society should confront issues by using “mitigation approaches,” such as attacking a problem on multiple fronts at the same time.
- Drawing on the power of many minds takes collaborating and sharing turf.
- The way forward lies in the brain’s power of “insight,” which people can foster by pursuing mental fitness.

Summary

Civilization, Insight and Magical Thinking

Has modern life become too complex? Consider ancient societies. The Mayans, for example, ran an impressive civilization in Central America for about 3,000 years. Their society came apart in the eighth or ninth century. Experts find that a water shortage, a virus, war or environmental conditions could help explain its collapse. In the

end, it seems that drought overwhelmed the Mayan civilization. Once they were in peril, the Mayans turned to their faith in ritual sacrifice as the solution to their woes.

“When it comes to climate change, terrorism, government debt and other widespread threats, we are simply dog-paddling against the powerful undertow of our cognitive limitations.”

But the best explanation may be an evolutionary principle: Humankind’s basic problem-solving apparatus – the brain – isn’t up to dealing with radical change and modern challenges. A society that knows this limitation could theoretically devise ways around it. When a problem approaches the meltdown stage, warning signs appear. These include “gridlock,” a freeze on problem solving, and a societal preference for unproven assumptions – or “beliefs” – over provable fact. People share a capacity for belief and a need for knowledge, but any society that rejects reality in favor of wishful thinking is in trouble.

“We stand at the edge of making the most important discovery since humans became mammals, forged social groups and discovered two-legged locomotion: insight-on-demand.”

People respond best to immediate issues. Addressing huge, continuing problems demands a lot of resources. In other once-powerful societies, the Romans and the Khmer, difficulties outstripped human capacities. The Romans collapsed still believing in their society’s perpetual superiority; the Khmer fell due to ruined water systems and punishing cycles of droughts and monsoons.

“Insight”

Evolution granted people an important tool: insight, which follows analysis and synthesis as the brain’s main information-processing method. Insight occurs when your mind finds a fresh solution by escaping analysis and synthesis to fashion new links. Insight is a measurable brain activity, a byproduct of the evolutionary process that developed intelligence. The brain fashioned new neural circuits in response to the fresh sensory challenges that came with being bipedal and with forming larger social units. Humanity must make similar advances as modern complexity overcomes the brain’s mastery. Society must recognize and embrace bold, innovative thinking.

“Opposition has become the new substitute for advocacy.”

Unfortunately, people can’t seem to accept innovators’ insights about ways to address difficult problems, such as climate change. Strategies that call for painting roofs white or cooling the Earth with sulfur dioxide go nowhere. Society largely ignores alternative energy.

“Supermemes”

Evolutionary reasons underlie people’s failure to embrace new ideas. People embrace fragments of widely credited information that older generations pass down. These “memes” include relevant wisdom, superstitions and myths. Memes that crowd out other ideas are supermemes. As daily life becomes more complex than the brain can process, people take comfort in a herd mentality rooted in humanity’s original survival instincts. Examine these five faith-based, groupthink structures to understand how they block change:

1. “Irrational Opposition”

Voices that oppose nearly everything now drown out voices that advocate solutions. The irrational default response to any solution is rejection. The US two-party system furthers this supermeme because one party’s victory depends on demonizing the other party. In the 2008 presidential election, Barack Obama harnessed anti-George W. Bush sentiment to present himself as the only alternative. When he took office and advanced concrete plans, opposition to him grew.

“The more fortified and numerous silos become, the further humankind strays from a unified, systemic approach to our greatest threats.”

This opposition-first paradigm has biological roots in brain function and development. The basal ganglia carries out habits while the frontal cortex handles complex procedures. Increased complexity overloads the cortex and drives people back to habit patterns. The frontal cortex links unexpected events to the amygdala, where the brain houses fear; this encourages people to seek safe haven, a reaction that discourages creativity and inhibits problem solving.

2. “The Personalization of Blame”

Society’s problems result from an overlay of many factors, including law, technology and custom. People have yet to discover a collective, deductive process for handling challenges. They revert to finger pointing. This supermeme manifested during the 2008 auto industry bailout: when the public learned that auto execs had traveled to Senate hearings on private jets, a furor erupted.

“Irrational opposition occurs when the act of rejecting, criticizing, suppressing, ignoring, misrepresenting, marginalizing and resisting rational solutions becomes the accepted norm.”

Retribution may feel good, but it doesn’t solve problems. No real foreign policy emerges by demonizing individuals such as the leaders of terrorist groups as the source of difficulties that would supposedly vanish if they did. This insidious supermeme fueled the misleading idea that society needed sterner adherence to personal excellence. The \$8 billion self-help industry testifies to the attractive but wrong idea that if you do the right thing – pay your debts, control your weight, recycle – you will be happier and you can make the world better.

“Insight is...the bridge between the slow evolution of the brain and problems that have become too complex for us to understand or solve.”

Actually, some of the forces that challenge average people are far beyond their control. Consider the world obesity epidemic. The pervasiveness of obesity argues that it is not a catastrophic failure of mass willpower but instead derives from potent external forces and humanity’s evolutionary heritage. People are built to maximize their calorie consumption when food is plentiful. Society rewards sitting around rather than exercising. Harvard’s Dr. John Ratey finds that childhood obesity correlates with diminished mental function, and that brain function is more efficient in active people. He advocates exercise at schools, work and retirement homes, and embraces a

“systemic” approach to health.

3. “Counterfeit Correlation”

The overload of data people must sift at a blistering pace is inescapable in the 21st century. That makes it easier for fiction to masquerade as fact and for society to fall under the spell of the third supermeme, counterfeit correlation. Such thinking causes people to align their ideas and actions with inaccurate data as correlation substitutes for causation. This happened famously in the past; recall the 1950s idea in the US that anyone with a communist friend must also be a communist.

“We haven’t yet developed efficient processes for thinking about and working on systemic issues. So, rather than become paralyzed by complexity, we are drawn to simpler explanations, beliefs and behaviors.”

Creating public policy under the influence of fallacious conclusions has acute consequences. Consider when people believed AIDS to be an exclusively homosexual problem. Or when governments instituted smoking bans everywhere, though the cancer-causing agent in cigarettes turned out to be chemical additives not tobacco itself. Repeated false correlations swirled around the fate of US public education, which hasn’t met global standards for decades. Analysts blame obstructionist unions, lack of parental engagement, ungenerous government funding, and many other factors.

“When our brains aren’t up to the job, we simply reduce the scope of the job to fit our abilities.”

The habit of drawing bad conclusions according to new but incorrect data diminishes society. So does reaching the wrong conclusions based on old facts. “Reverse engineering,” a term used for processes like the after-the-fact reconstructions of airplane crashes, turns out to be a potent method for fashioning preferred conclusions from history. Consider the area of presidential reputation – such as excusing Richard Nixon as the victim of a partisan attack during Watergate.

4. “Silo Thinking”

Humans break complex problems down into smaller constituent parts. Frequently, the parts turn into turfs that their owners defend at all costs. This generates the fourth supermeme, silo thinking, which leads people to maintain warring fiefdoms instead of solving problems with collaboration. Take the health care industry, where insurance firms, hospitals and doctors inhabit three separate, fortified castles. Emergency room doctors often lack primary information about a patient’s medical history. If the patient is on Medicare, his or her primary-care doctor can’t afford to see the patient again, because of the number of Medicare patients in line. So, the patient goes back to the ER, since insurance will pay for that. The insurance company simply raises premiums if costs spiral up, and patients remain dangerously underserved. The *New England Journal of Medicine* indicates that ER patients have a one-in-three chance of being back in the ER within 90 days.

“The more we rely on false correlation and lower our standards for proof, the more we open the floodgates for irrational beliefs and behaviors.”

The downside of silos became apparent in the aftermath of the 2010 earthquake in Haiti, where inexperienced nonprofits preferred their own silos to working with the Red Cross. This badly complicated the situation on the ground, despite everyone’s best intentions. Such behavior has a biological basis in the animal world, where populations draw on innate territoriality to protect themselves, their food sources, their mates and their offspring. The US government offers an egregious example of hardheaded territoriality. NASA’s technology for beaming solar power from space to provide clean, free electricity remained unappreciated for years because the Department of Energy refused to acknowledge technology another agency developed on its turf.

5. “Extreme Economics”

The extreme economics supermeme views profit as the only measure of success. This is counter to the complex approach society must embrace to solve its pressing problems. For example, Segway inventor Dean Kamen has developed a water-purifying system with the potential to provide clean water in developing countries, but finding financing for widespread application has proven too difficult.

“In the 21st century, profitability has become the most powerful barometer of legitimacy.”

Economics’ immense influence originates in a basic evolutionary tenet: Creatures that gather more resources improve their chances for survival. A controversial university experiment that taught chimpanzees to use tokens to get treats ended in robbery, prostitution and violence among the chimps. It demonstrated how efficiently money enables survival.

“There comes a time when a problem is so big and so complicated that you have to throw everything – including, perhaps, the kitchen sink – at it.”

The success of economics creates a value-judgment calculus that weighs the merit of an idea based only on its profit potential. Universities, always in need of funding, have become R&D arms of business rather than havens for research. Ideas with practical moneymaking applications attract funding; scientific inquiry doesn’t. The West wants the Middle East to obey its fiscal-first orientation, but in that region, religious conviction impels people more than profit. The upshot is a conflict of belief systems – supermemes – that looks like a harbinger of collapse. A society that prefers articles of faith over collaborative problem solving cannot patch its biggest holes.

Solutions

How can society progress? Because the biggest problems have multiple causes, society must apply multiple answers – as the Allies did to defeat Germany and Japan in World War II – by attacking every aspect of the issue at hand. People must renew their demands for facts instead of accepting magical thinking. Solutions include fostering free research in universities, supporting investigative journalism, and restructuring teaching as a highly paid field. Modern presidents and public officials could follow the laudable practice of Harry Truman, Dwight Eisenhower and John F. Kennedy in seeking unbiased, private advice from independent scientists outside Washington.

“Today, economic considerations overwhelm other values to such an extent they now have the power to decide how and if humankind’s greatest threats will be solved.”

Individuals can help society by improving their brains. The emerging industry of brain fitness – on which Americans spent \$80 million in 2008 – spawned impressive results. People older than 50 who used brain-exercising websites and performed computer-based brain calisthenics regained the cognitive reflexes of people two decades younger. This success demonstrates the brain’s “plasticity,” its ability to keep learning, adding knowledge and achieving insight in critical situations. Insight draws on the power of the unconscious to surmount cognitive roadblocks.

“When we elevate the pursuit of knowledge to be equal to the pursuit of money and convenience, civilization will rediscover the balance it needs to thrive.”

Developing insight is the next evolutionary step to addressing societal difficulties. Several behaviors can build your ability to achieve insight: 1) working in groups of four to nine people; 2) trying new activities; 3) taking workday breaks; and 4) eating the right foods – protein in particular. Resist taking on too many tasks and relying excessively on medication. You can unlock your capacity for insight and help save society in the process.

About the Author

Rebecca D. Costa is a sociobiologist, writer and former Silicon Valley executive who hosts *The Costa Report*, a weekly syndicated radio program.
