

INSPIRE YOUTH JOURNAL

The Harvard Crimson Global Essay Competition, one of the world’s most prestigious essay contests, congratulates its Regional Winners on receiving our Honorary Ambassador title.

The John Locke Institute, which organizes one of the world’s most prestigious essay competitions, described the publication of their alumni’s articles in Inspire Youth Journal as a “success” and a “fantastic achievement.”

The 29th Edition

TABLE OF CONTENTS

What problems does hierarchy face in this modern world?.....3

Do Black Holes Really Destroy Everything?The Truth Behind Stephen Hawking’s Theory.5

Koh-i-Noor and the problem of repatriation.....7

The Silent Auction: Who Really Pays for America’s Debt.....9

When The Heart Breaks, Literally..... 11

Carbon tax: Correct, or Compromised?..... 13

Locked in the Brain: Do Our Feelings Actually Belong to Us?..... 15

The Comfort Paradox: Emotional Support Animals and the Modern Teen Mind..... 17

What does one mean when they say “that altered my brain chemistry”? : Exploring the science of how everyday happenings affect the mind,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, 19

Digital Therapy: Why Gen Z Is Turning to AI for Mental Health Support.....21

From Jet Fuel to Window Seat: How Airline Seating Incites Class Warfare.....23

A Ban on Taste in Ghana: The Controversy Over Tsofi Consumption.....25

Euphemism and Exaggeration: Rhetorical Devices That Extend Beyond Mere Nuanced Interpretation.....26

Pareidolia: Why Humans See Faces in Random Objects.....29

EFL Teachers’ Beliefs and Practices in Differentiated Instruction within Inclusive Kazakhstani Schools.....31

Why our minds wander: The hidden science behind daydreaming.....33

Quantum Superposition and Anekantavada: Is Reality Inherently Multifaceted?.....35

The evolution and implementation of meritocratic systems.....38

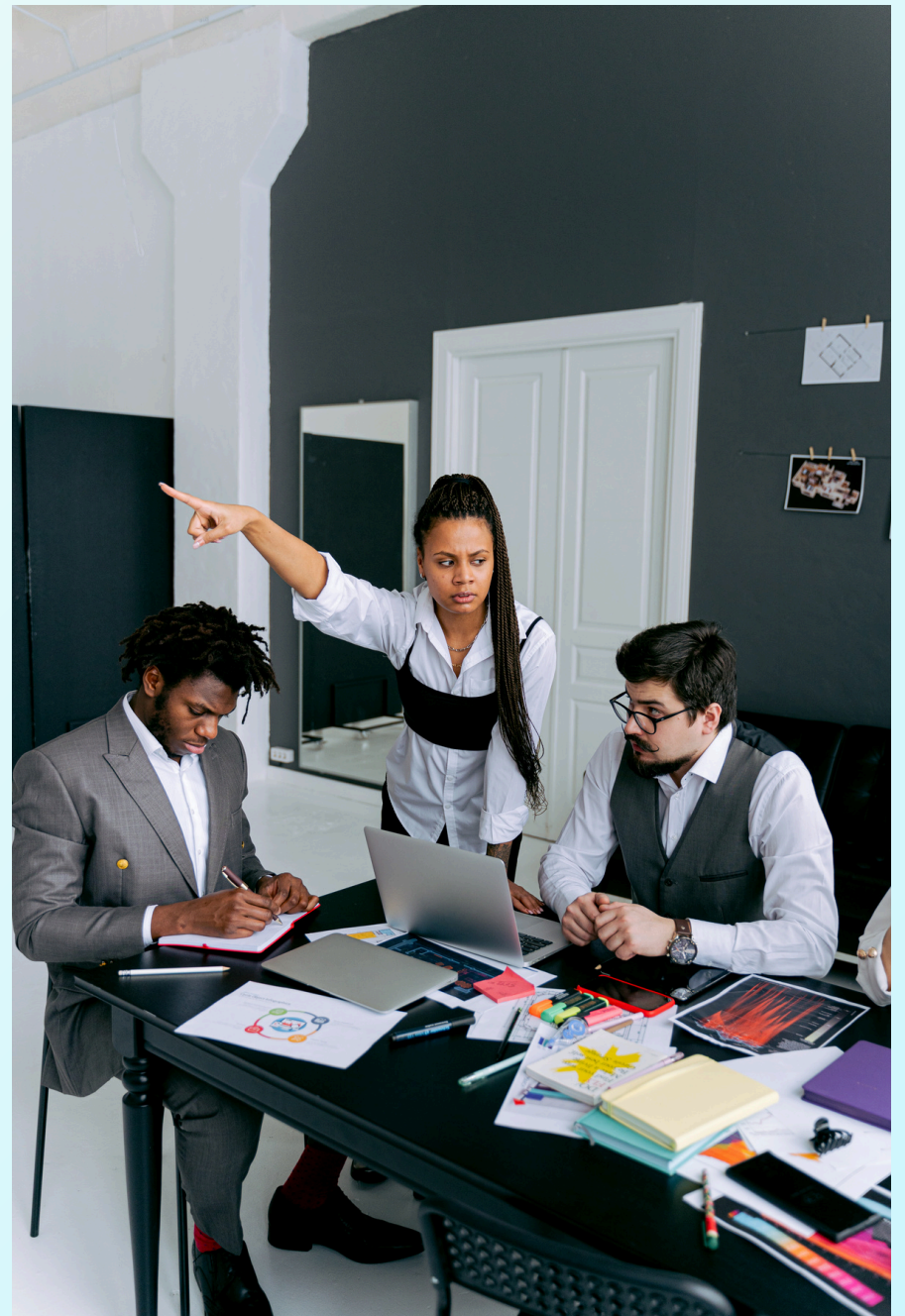
WHAT PROBLEMS DOES HIERARCHY FACE IN THIS MODERN WORLD?

Lan Dao

Hierarchy, in the modern world, can be defined as a pyramid where power flows from the top (leaders) to the bottom (workers), with each level subordinate to the one above it, facilitating efficient management and decision-making. It helps coordinate people to achieve goals, but haphazard structuring can cause confusion or failure. In a bureaucracy, rules make things fair and predictable, but too many rules can slow things down, be impersonal, and resist change.

Drawing from hierarchical administration principles which are (1) specialization, (2) unity of command, (3) limited span of control, and (4) a specific grouping of workers for purposes of control, a hierarchical government can increase efficiency by enhancing these principles. However, they are like proverbs, contradicting each other. For example, specialization, which emphasizes that each worker should focus on their own separate task to maximize one's strength, contradicts unity of command, which suggests that all members of an organization should report to a single commander or supervisor to promote clarity and efficiency in operations. If there is one boss, workers can't get expert advice from multiple specialist bosses without breaking the unity. At this point, it's no longer efficient as things are slowing down and the final decisions may not be the best ones the government can make due to the lack of advice and specialized knowledge from experts. This makes hierarchy less effective when teams need to work fast across borders.

The modern world is a fast-paced, technology-driven landscape marked by rapid digitalization, global interconnectedness, and stark inequalities, all of which need robust public administration to coordinate responses, deliver equitable services, and foster evidence-based governance. Urgent social problems like climate change, cyber threats, or pandemics need quick, flexible responses, while old hierarchies that now must solve these problems are slow: decisions go up and down levels, causing delays. According to bounded rationality, people can't process all information at once, so structures should help. Yet structure tells you which problems matter and what success looks like. It creates "networks" for info flow—defining who you talk to and what you hear. This biases decisions because you only act on what reaches you. In "network" structures (committees mixing units), behavior is more flexible/innovative, but less controlled. It's not neutral—it biases behavior to fit the organization's setup.



WHAT PROBLEMS DOES HIERARCHY FACE IN THIS MODERN WORLD?

Lan Dao

Hierarchy struggles with internal conflicts and dissatisfaction in diverse societies. Modern workers and citizens expect motivation and equality, not just orders. Hierarchical models treat workers like parts in a machine, ignoring emotions or growth to emphasize efficiency, leading to low morale and high turnover. According to Maslow's hierarchy of needs, workers also demand esteem and self-actualization to have job satisfaction. Large organizations, with their hierarchical authority structure, are repressive. This design feature makes individuals dependent on and subordinate to the leader, lessening self-control and shortening their time-perspective. Besides, according to Herzberg's Two-Factor Theory, the real stimulations, including growth, advancement, and recognition, can produce a high level of motivation and satisfaction for work, encouraging workers to keep generating outcomes and devote themselves to a company in the long-term. However, in a hierarchy, workers are required to strictly follow a top-down rule, focus on their own task, and obey their leaders, limiting the chance and motivation to speak up, give new ideas, and be recognized. Money helps, but it doesn't adequately explain variations among companies or among a single company's work groups. Other factors motivate productivity — including high levels of light (according to important research from the 1920s and 1930s) — as well as more attention from supervisors. Researchers called this the “Hawthorne effect”—workers respond to supervisors who pay attention to them. Organizations that make the work more rewarding and value workers' contributions see more productivity from their workers.

Governments contracting with agents can also improve services and efficiency. When the state hires private firms, it can use their skills to deliver better results. For example, in service implementation networks, where governments fund private or nonprofit providers, they can integrate services efficiently while governments only need to manage their performance, encourage cooperation, and negotiate contracts. However, we should note that the collaboration between governments (principals) and agents might have some problems due to information asymmetries. Principals often lack sufficient details about agents before hiring, leading to adverse selection where unsuitable agents—who may lack the ability or willingness to meet expectations—are chosen. To mitigate these risks, principals can gather accurate information on agents prior to hiring, adjust incentives to align interests, and redesign organizational structures for better control.

In summary, the hierarchy model faces big challenges in modern society from speed, flexibility needs, and internal conflicts. Government contracting can help legitimacy through better services, but risks it via corruption and blurred roles.

To fix this, governments can mix hierarchy with networks and strong oversight.

Bibliography:

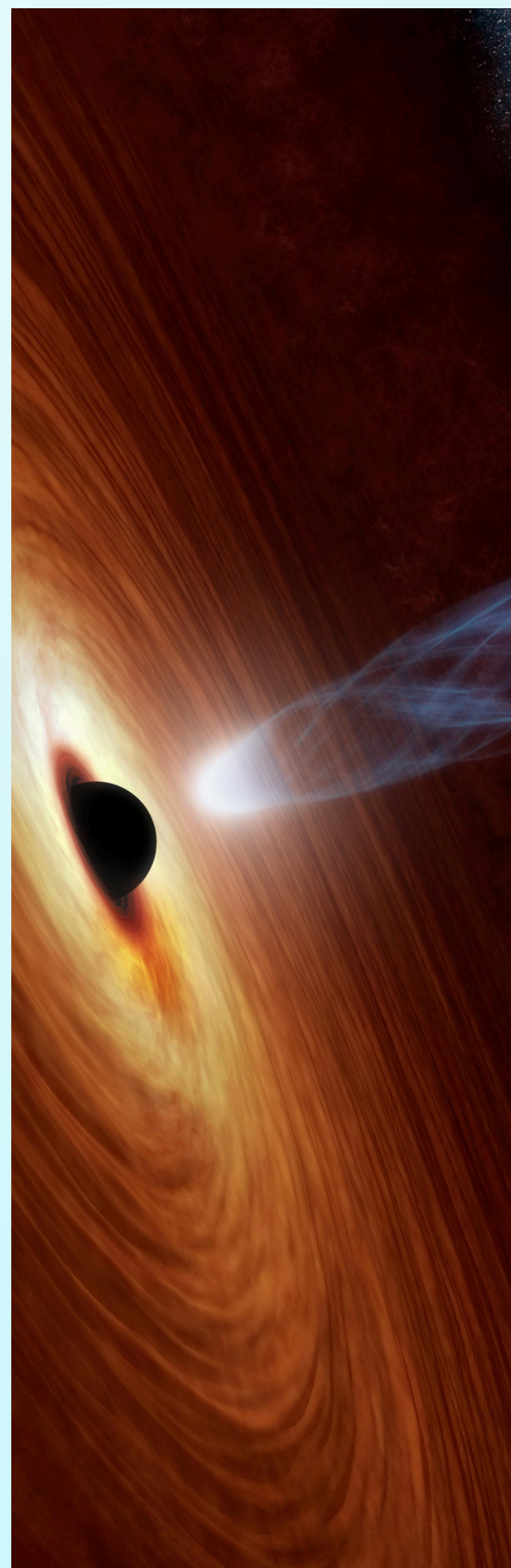
- <https://doi.org/10.2307/973030>
- Hal G. Rainey. (2009). Chapter 9: Motivation and Motivation Theory. Understanding and Managing Public Organizations. John Wiley & Sons.
- <https://www.simplypsychology.org/maslow.html>
- <https://thedecisionlab.com/reference-guide/psychology/the-hawthorne-effect>
- H. Brinton Milward and Keith G. Provan. (2006). A Manager's Guide to Choosing and Using Collaborative Networks.
- Kettl, D. F. (2017). Politics of the administrative process (7th ed.). Part IV: Making and Implementing Government Decisions. CQ Press.



DO BLACK HOLES REALLY DESTROY EVERYTHING? THE TRUTH BEHIND STEPHEN HAWKING'S THEORY

Ngan Le

For decades, black holes were thought to swallow everything forever. But what if they don't? These invisible giants are some of the most mysterious and extreme objects in our universe, acting as the ultimate point of no return. At its simplest, a black hole is a region in space where gravity is so intense that nothing, not even light, can escape its pull. This happens when a massive amount of water is squeezed into a tiny space, creating a gravitational force that wraps the fabric of the universe itself. To fully grasp how they work, think of the Event Horizon. This is the invisible boundary surrounding the black hole. Imagine it as the edge of a waterfall: you can swim near it, but once you cross that line, the current is too strong to ever swim back. Anything that crosses the event horizon is destined to be pulled into the center. For a long time, scientists believed black holes were completely "black" and would last forever. Yet in the 1970s, Stephen Hawking proposed something radical: black holes actually leak. According to quantum physics, empty space isn't actually empty. It is bubbling with virtual particles that appear in pairs, exist for a tiny fraction of a second, and then simply vanish. Hawking realized that if this happens right at the edge of the event horizon, something strange occurs: one particle falls into the black hole, whereas the other particle escapes into space. To an outside observer, it looks like the black hole is emitting a faint glow of energy. This is called Hawking Radiation. Because the escaping particle takes a tiny bit of energy with it, the black hole slowly loses mass. Over billions of years, a black hole could eventually evaporate and disappear entirely. Hawking's discovery triggered a crisis known as the Black Hole Information Paradox, rather than just a fascinating theoretical footnote. Thus, one of the biggest reasons why physicists were disturbed was because it broke the "Golden Rule" of the universe: Information is never truly lost. In the world of physics, information refers to the precise state of every particle, including its mass and how it spins. Imagine you take a physical book and burn it. To your eyes, the information is gone. However, if you were a physics god and could track every single atom of ash and every photon of infrared heat released by the fire, you could, mathematically, reconstruct the book. The information has been scrambled, but it still exists in the universe. Hawking Radiation challenged this entire foundation. If a black hole swallows a book, and then the black hole itself evaporates until it disappears entirely, what happens to that information? Hawking's original math suggested the radiation was thermal and random, meaning it didn't carry the DNA of the things the black hole had eaten. If the black hole vanishes and the information isn't in the radiation, then the information has been deleted from existence. This sent shockwaves through the community because if information can be deleted, the laws of cause and effect break down. We could no longer use the present to predict the future or understand the past. This has eventually resulted in the "Black Hole War" between physicists, a battle to determine if the universe has a permanent memory or if it can truly forget. Decades later, Hawking's discovery remains the Holy Grail for those hunting for a Theory of Everything.



DO BLACK HOLES REALLY DESTROY EVERYTHING? THE TRUTH BEHIND STEPHEN HAWKING'S THEORY

Ngan Le

Before Hawking, our two most successful descriptions of the universe were like two languages that couldn't be translated: General Relativity: The laws of the massive (stars, galaxies, and gravity), and Quantum Mechanics: The laws of the subatomic (particles and waves). Usually, these two theories don't need to talk to each other. Gravity is too weak to affect atoms, and atoms are too light to affect gravity. But a black hole is a unique laboratory where both are true at once: it is incredibly massive (Gravity) and incredibly tiny at its core (Quantum). By proving that black holes have a temperature and an expiration date, Hawking forced these two clashing theories to shake hands. He showed that the large and the small must work together. Today, this work fuels the most cutting-edge ideas in science, such as String Theory and Quantum Gravity. It suggests that the universe might be a hologram, where the information about the inside of a black hole is actually stored on its surface. It tells us that even the most formidable, permanent-looking structures in the cosmos are subject to change. Black holes are not merely just cosmic vacuum cleaners; they are complex engines that slowly recycle energy back into the void, proving that in the end, everything in the universe is connected by a single, mysterious thread. Ultimately, the study of black holes reveals a poetic truth about the scientific endeavor: every answer we find only uncovers more profound, more haunting mysteries. They serve as a celestial reminder that the universe is far more connected, and far stranger, than we ever dared to imagine.

As we peer into these dark abysses, we find that black holes may be the beginning of our deepest, most essential questions about the nature of reality itself.

Bibliography:

- <https://www.space.com/black-holes-event-horizon-explained.html>
- https://en.wikipedia.org/wiki/Black_hole
- <https://www.britannica.com/topic/event-horizon-black-hole>
- <https://breakthroughinitiatives.org/news/18>
- <https://timesofindia.indiatimes.com/science/stephen-hawkings-black-hole-prediction-finally-comes-true-why-its-a-breakthrough-for-science/articleshow/123853259.cms>
- <https://universemagazine.com/en/mystery-of-black-holes-is-revealed-breakthrough-in-understanding-the-paradox-of-information-loss/>
- <https://www.sciencehistory.org/stories/disappearing-pod/stephen-hawking-and-the-mistake-that-made-his-career/>
- https://en.wikipedia.org/wiki/Stephen_Hawking
- <https://pursuit.unimelb.edu.au/articles/a-brief-history-of-hawking-s-scientific-legacy>
- <https://www.space.com/the-universe/what-were-stephen-hawkings-greatest-contributions-to-science>
- <https://scienceillustrated.com/scientists/hawking-tamed-the-big-bang-and-black-holes>
- <https://www.britannica.com/biography/Stephen-Hawking>
- <https://www.cbc.ca/news/science/stephen-hawking-1.4575652>
- <https://schmidscience.com/how-the-scientific-community-has-been-impacted-by.html>
- <https://www.sciencemuseum.org.uk/objects-and-stories/big-bang-stephen-hawkings-office>
- <https://www.space.com/the-universe/what-were-stephen-hawkings-greatest-contributions-to-science>
- <https://www.timesnownews.com/technology-science/explainers/6-most-important-discoveries-made-by-stephen-hawking-article-106917662>



KOH-I-NOOR AND THE PROBLEM OF REPATRIATION

Kenneth-Treasure Ahaiwe

During King Charles III's visit to the United States (with his wife Queen Consort Camilla) in April 2026, Zohran Mamdani, the Mayor of New York City, told the press that he would urge King Charles to return the Koh-i-Noor to India if they had a conversation. The call, by the mayor, Mamdani, who has Indian roots, revitalized the conversation on colonization and repatriation.

The Koh-i-Noor:

The Koh-i-Noor is one of the biggest and most famous diamonds in the world. Koh-i-Noor is Persian for "Mountain of Light." Its original size was 180 carats, but it was eventually cut in 1852 to 105.6 carats to improve its brilliance.

The Koh-i-Noor, which is about the size of an egg, has a very long history, with some myths saying that it brings bad luck to males who wear it. After the Second Anglo-Sikh War in 1849, the Sikh Empire in modern-day Punjab was defeated by the British, and the Treaty of Lahore was signed that year. Under the treaty, the then ten-year-old ruler, Maharaja Duleep Singh, was made to surrender the diamond to the British. The diamond was then presented to Queen Victoria.

The Royal House and Koh-i-Noor

The Royal House has quite some history with the Koh-i-Noor after its presentation to Queen Victoria. It was worn in 1902 by Queen Alexandra on her crown during the coronation of King Edward VII. It was also worn by Queen Elizabeth the Queen Mother in 1937 and was placed on her coffin during her lying-in-state in 2002. The Koh-i-Noor was never worn publicly by Queen Elizabeth II, nor was it worn by Queen Consort Camilla during her coronation, speculatively due to its highly contested nature.

Koh-i-Noor & Its Controversies

Countries like India, Pakistan, Afghanistan, and Iran have laid claim to the diamond, and India has consistently asked the United Kingdom government to return it. The UK, on the other hand, has declined, citing the 1849 Treaty of Lahore as legally binding at the time. While not normally worn publicly, these countries believe it is a symbol of colonization and colonial looting. If the UK is to return the diamond, to whom would it return it? To India, to Pakistan, which controls a part of Punjab, to Iran, which has historical ties to it, or to Afghanistan?

The Modern-Day Problem of Repatriation



KOH-I-NOOR AND THE PROBLEM OF REPATRIATION

Kenneth-Treasure Ahaiwe

The Benin Bronzes

The Benin Bronzes (more artifacts that revitalized conversations around repatriation) were looted from the ancient Benin Empire in present-day Nigeria during the Benin Expedition of 1897. Previous calls for the return of the artifacts were denied by European countries, citing preservation concerns.

While such claims have become weak recently, some of the artifacts have been returned by European countries like Germany, the United Kingdom, and the Netherlands, though it is only a fraction of the many looted. But a problem has arisen. When these artifacts were looted, Nigeria was not yet a country. In fact, the country known as Nigeria was amalgamated in 1914. While these artifacts are central to the Benin identity and monarchy, the question now is: who receives these artifacts? The monarchy or the Federal Government of Nigeria?

Traditionally, these bronzes were kept with the Obas, the kings of the Benin Empire, but they have formed part of a national heritage. Should tradition be left aside and heritage pursued? If tradition is left aside, then why can't universal heritage be pursued?

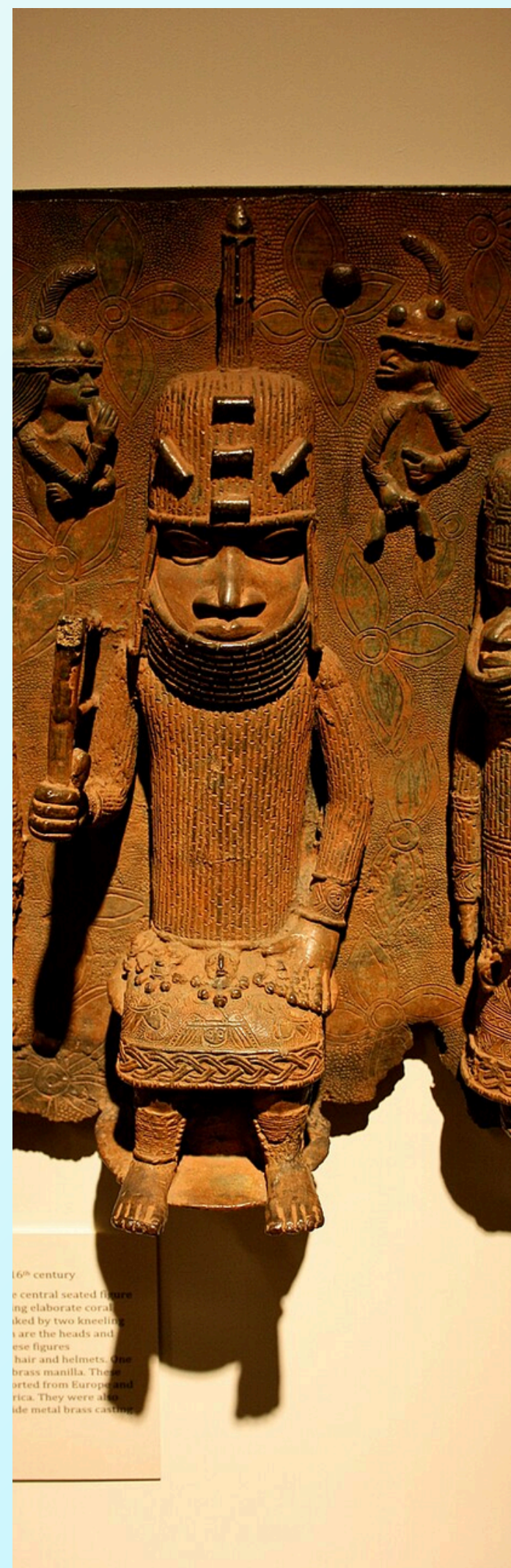
It also defeats the reason for these artifacts, which is to preserve tradition.

The Case of the Koh-i-Noor

Many countries lay claim to it, with India and Pakistan being the strongest claimants. While the UK has repeatedly denied repatriation, it is believed to be ethical to do so, at least to heal the colonial past. If the UK is to return this artifact, one question remains: to whom? With Pakistan, India, Afghanistan, and Iran laying claim, will it bring about a new wave of diplomatic tension?

Bibliography

- https://www.reuters.com/world/uk/new-york-mayor-mamdani-encourages-king-charles-return-koh-i-noor-diamond-2026-04-29/?utm_
- https://www.theguardian.com/world/2026/may/05/koh-i-noor-diamond-colonialism-controversy-king-charles-us-visit?utm_
- <https://www.britannica.com/topic/Koh-i-noor>
- https://www.britannica.com/art/Benin-Bronzes?utm_
- https://www.horniman.ac.uk/story/horniman-to-return-ownership-of-benin-bronzes-to-nigeria/?utm_
- <https://www.reuters.com/lifestyle/germany-start-returning-benin-bronzes-2022-2021-04-30/>
- <https://www.reuters.com/world/uk/londons-horniman-museum-return-benin-bronzes-nigeria-2022-08-07/>
- <https://www.worldhistory.org/image/13972/koh-i-noor-diamond-replica/>
- https://commons.wikimedia.org/wiki/File:Benin_Bronzes_at_the_British_Museum_2.jpg



THE SILENT AUCTION: WHO REALLY PAYS FOR AMERICA'S DEBT

Ayush Ranjan

When a homeowner signs a mortgage, when a graduate signs a student loan, and when an investor prices a stock, it all traces back to a single number: the yield on a 10-year US Treasury bond. That number is determined twice each month in auctions that have almost no American watches; the buyers in those auctions are being replaced behind the screen. For two decades, foreign central banks (most notably China's) financed a steadily growing share of US debt.

Today, hedge funds in the Cayman Islands, money-market funds in Boston, and ordinary American households have taken their roles.

What a Treasury Actually Is

A Treasury security is an IOU issued by the federal government. The investor lends money to Washington; Washington promises a fixed schedule of payments in return. The price the IOU sells for at auction sets its yield, and that yield becomes the cost of borrowing for the entire country. Mortgage rates, corporate loan rates, and the discount rate used to value stocks all weigh on Treasury yields. As of late April 2026, the 10-year yield sat near 4.30%; total federal debt sat near \$38 trillion (US Department of the Treasury, 2026).

The Old

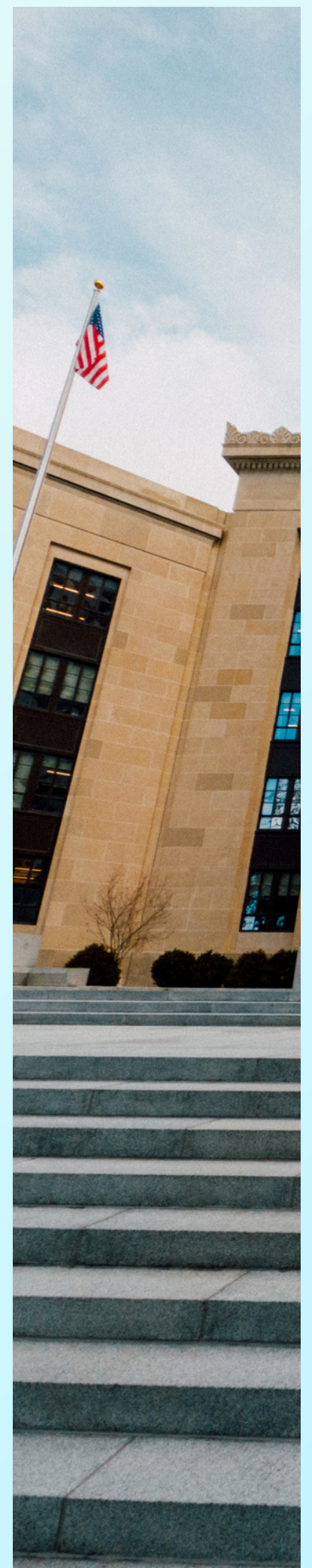
Foreign central banks amassed large treasury portfolios from the beginning of the 2000s until roughly 2014. The best example being China, which continuously bought U.S. treasuries as it had a trade surplus with the U.S. and used the U.S. dollars it received to purchase U.S. government debt. The U.S. dollar was the world's reserve currency, while U.S. Treasuries were the most reliable and liquid form of financial asset available. Foreign governments wanted a safe place to store trillions of dollars, and the U.S. wanted to borrow to finance its budget deficits. Both sides got what they wanted (Setser, 2023).

The Exit

That arrangement is dwindling down. China's Treasury holdings peaked at roughly \$1.32 trillion in late 2013; today, they sit near \$760 billion, a decline of about 42% (Wolf Street, 2026). Non-US central banks as a group have sold more than \$82 billion in Treasuries, reducing their sum to the lowest level since 2012 (Financial Times, 2026). There are three reasons that explain this. First, surplus economies have been deliberately diversifying away from dollar assets. Second, the freezing of Russian reserves in 2022 demonstrated that dollar holdings can be weaponized. Third, Japan has periodically sold Treasuries to defend against its own falling currency, the yen.

The New

Someone has to absorb the new debt, and three groups are now doing so. American households, investing through money-market funds and brokerage accounts, hold a larger share than at any point in modern history. Major Wall Street banks that intermediate the auctions have rebuilt their portfolios to roughly \$550 billion, the highest level since 2007 (Financial Times, 2026). The most surprising change, however, involves hedge funds. Many funds located in the Cayman Islands now hold positions estimated near \$2 trillion, supported by more than \$6 trillion in leveraged financing; their share of the Treasury market has reached a record 8% (BigGo Finance, 2026). Their dominant strategy, called the basis trade, profits from tiny price gaps between Treasury bonds and Treasury futures.



THE SILENT AUCTION: WHO REALLY PAYS FOR AMERICA'S DEBT

Ayush Ranjan

Why This Is Riskier Than It Looks

Foreign central banks were patient holders; they bought Treasuries to preserve reserves, not to generate quarterly returns. Hedge funds are leveraged venturers; they decompose positions quickly when funding conditions decline. In March 2020, the basic trade seized up under the pandemic, and the Treasury market briefly stopped functioning; the Federal Reserve was forced to intervene to restore order (Schrimpf et al., 2020). Roughly 33% of all outstanding Treasuries will mature in the coming year, requiring nearly \$10 trillion in new debt to be rolled over (BigGo Finance, 2026). If hedge fund leverage dies during such a window, the consequences would not stay confined to just Greenwich trading desks.

Why a Young Individual Should Care

The 10-year yield is not abstract. It sets the rate on a thirty-year mortgage, the rate on a federal student loan, the rate on a small-business loan, and the discount rate used to value the stocks held in retirement accounts. When the yield rises, monthly payments rise; when the yield falls, asset prices generally rise. A teenager who plans to buy a home in fifteen years, attend college on borrowed money, or invest in an index fund is exposed to the Treasury market whether they realize it or not.

Looking Deeper

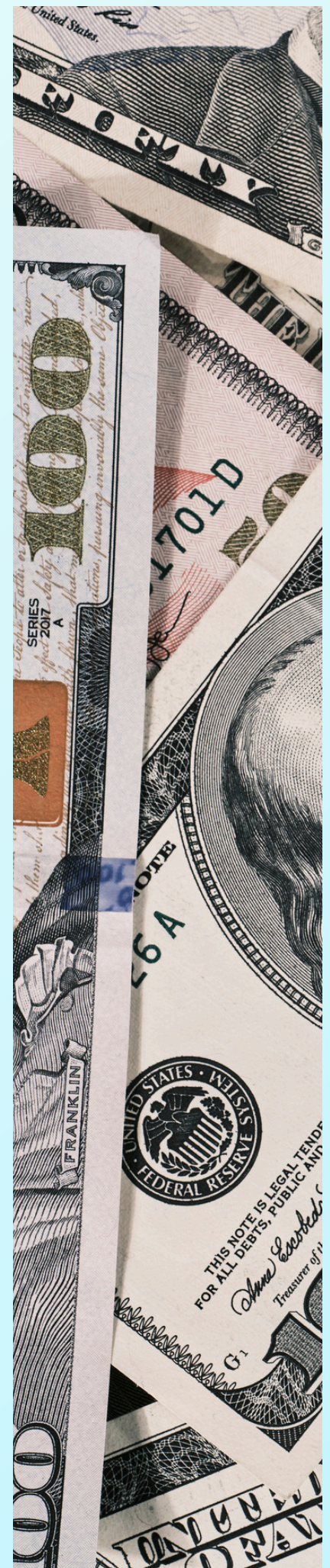
Governments have two borrowing types: patient lenders (such as investment banks and foreign governments) and impatient lenders (such as the general public). Over the last 20 years, most of the U.S. has borrowed from foreign central banks, which prefer stable financing at a low cost. This purchasing trend will likely shift in the future, with buyers including households sensitive to price and hedge funds sensitive to leverage; both groups are highly elastic and will respond to changing market conditions. This does not imply an upcoming crisis or a decrease in foreign central banks' interest in U.S. Treasuries; it merely reflects a change in buyer types. The shift in participant types will result in greater variability in borrowing costs for Americans.

This type of overlooked auction occurs when students obtain loans to attend college, families acquire mortgages, and workers save for retirement. Understanding who the lenders in the U.S. are is critical to predicting future borrowing costs. As the types of buyers change, so will the implications for interest rates and other forms of borrowing across different sectors.

This change indicates an increased need for vigilance regarding lender dynamics in the U.S., so as to anticipate how these trends will impact the way people and families make financial decisions on a day-to-day basis within the country.

Bibliography:

- <https://finance.biggo.com/news/nxwa050BrAZSr0oSj4dw>
- <https://www.congress.gov/crs-product/RS22331>
- <https://www.bis.org/publ/bisbull02.htm>
- <https://home.treasury.gov/resource-center/data-chart-center/interest-rates>
- <https://wolfstreet.com/2026/04/15/the-largest-foreign-holders-of-us-treasury-securities-and-the-basis-trade-april-2026-update/>



WHEN THE HEART BREAKS, LITERALLY

Nhi Trần

Can a heart truly break from grief?

Most people associate emotional suffering with invisible, mental wounds — the despair following the loss of a loved one, the anguish of a toxic relationship, or the overwhelming weight of trauma. Such experiences are often dismissed as purely psychological. Yet what if all these emotions could manifest as a genuine physical condition?

That question lies at the heart of Takotsubo cardiomyopathy.

What is Takotsubo cardiomyopathy?

First described in 1990 in Japan, takotsubo cardiomyopathy is a weakening of the left ventricle, the heart's main pumping chamber. 'Takotsubo' means 'octopus trap' in Japanese. It was so named because the left main chamber of the stricken heart is thought to resemble an octopus trap. The condition is usually the result of severe emotional or physical stress, such as a sudden illness, a breakup, a serious accident, or a natural disaster such as an earthquake. That's why the condition is also called stress-induced cardiomyopathy or broken-heart syndrome.

Why is Takotsubo syndrome (TTS) so remarkable?

What distinguishes Takotsubo syndrome from other medical conditions is the striking way it demonstrates the profound connection between emotion and physiology. It is perhaps one of the clearest examples of how intense emotional experiences can produce immediate and measurable biological consequences.

It demonstrates how significantly the heart's structure and function can be altered in the aftermath of severe emotional shock, thereby blurring the delicate boundary between emotional pain and physical illness.

Challenging the Divide Between Mind and Body

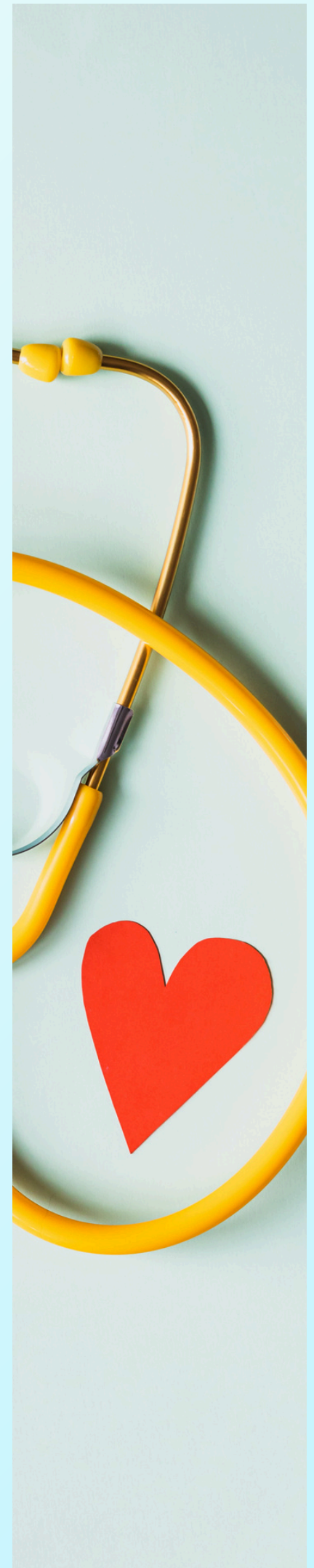
For centuries, emotions have largely been regarded as abstract and immeasurable experiences confined to the mind. However, Takotsubo reveals that emotion can become biologically observable through ECG (electrocardiogram) changes, chest pain, weakened cardiac contraction, or visible ventricular ballooning.

The condition also transforms the phrase “broken heart” from a poetic metaphor into a medical reality. It suggests that the human body may interpret emotional suffering far more literally than previously believed.

Lessons from a Broken Heart

The syndrome raises broader questions about modern life. Chronic stress, emotional suppression, and burnout have become increasingly prevalent, especially among younger generations. While everyday stress may not directly cause Takotsubo syndrome, prolonged exposure to stress hormones can still affect sleep, immunity, memory, and cardiovascular health. Science is gradually revealing that the body and mind are far more interconnected than people once assumed.

Ultimately, Takotsubo syndrome teaches us that emotions are not separate from biology. Human feelings are not merely fleeting mental states; they are deeply intertwined with the body's physiological systems. A “broken heart” may sound poetic, yet modern medicine suggests there is profound scientific truth hidden within the metaphor.



WHEN THE HEART BREAKS, LITERALLY

Nhi Trần



Bibliography:

- <https://www.mountelizabeth.com.sg/health-plus/article/happy-heart-syndrome>
- <https://www.health.harvard.edu/heart-health/takotsubo-cardiomyopathy-broken-heart-syndrome>
- <https://www.ahajournals.org/doi/10.1161/circulationaha.116.027121>

CARBON TAX: CORRECT, OR COMPROMISED?

Adhya Sinha

“Code red for humanity” were the exact words used by the United Nations Secretary-General to address the climate issue. Whether it be exacerbated droughts and rising sea levels, or worsening food insecurity and depriving indigenous communities, the climate crisis lays out catastrophic repercussions not just for the planet, but for humankind. Carbon dioxide is a chief driver of global warming; thus, effective policies designed to tackle climate change are aimed at reducing the level of global carbon emissions.

Imposing a tax on atmospheric carbon releases is one such measure. An increase in resource or product prices due to the carbon tax reflects the internalisation of negative production externalities generated from carbon emissions.

Integrated Assessment Model (IAM) is the tool employed by government agencies to estimate the social cost of carbon, based on which the efficiency of carbon taxes and other carbon-neutral policy designs are judged. At its core, the model traces fossil-fuel combustion’s multiplier effect on the economy by first predicting the Gross Domestic Product (GDP) levels in future years. Based on these production amounts, forecasts of potentially needed energy inputs are estimated, which are then modelled into subsequent increases in atmospheric temperatures. The final quantification of global warming’s economic consequences is done through approximations of plausible financial burden that arid climatic conditions can bring; this includes poor harvest, labour inefficiency, and land demolition caused by natural hazards.

However, this framework appears to have been created using a painfully microscopic view, as it begins with the economy and ends with the economy, without considering the ecological implications of carbon emissions. It entirely rejects the environmental load on essential ecosystem services, like the extinction of keystone species and the erasure of coastal protection attributed to deforestation. Unfortunately, natural capital is often conveniently overlooked by economists despite the fact that it provides the groundwork for economic growth. Pavan Sukhdev’s statement, “Nature gives everything to us free of cost and does not generate invoices”, perfectly captures the unjust methods of weighing natural capital’s worth.

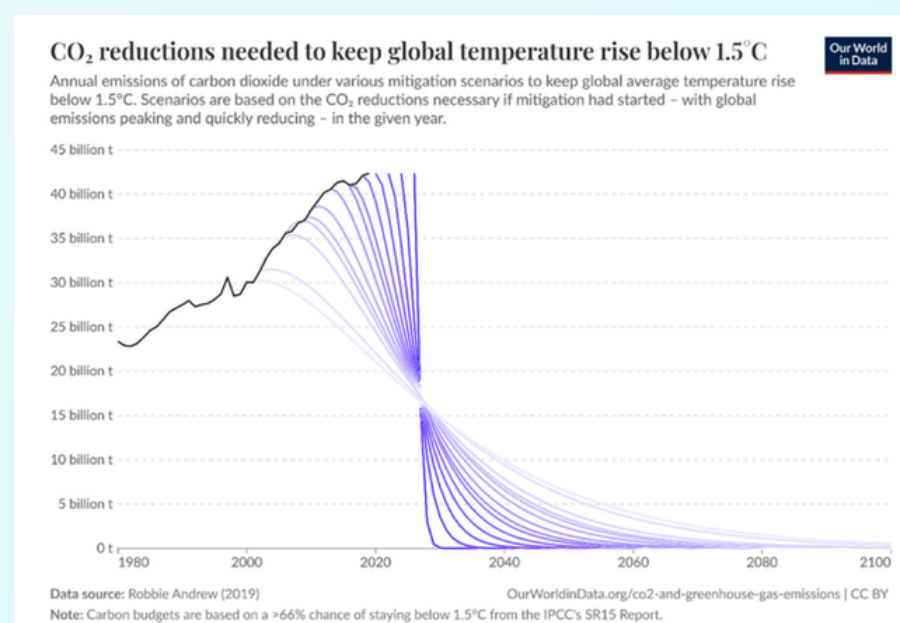


Figure 1: Deductions in CO₂ required to keep global temperature rise under 1.5°C (Our World in Data, 2019)



CARBON TAX: CORRECT, OR COMPROMISED?

Adhya Sinha

Owing to the uncertainty surrounding an optimal carbon tax rate, there is no perfect calculation for one. According to many economists, the current tax rate is well below the ideal rate. So, what constitutes an ideal tax rate? Approximations differ significantly, as suggested in a survey by Tol (2013), with the mean social cost of carbon at US\$196 per ton and its standard deviation at US\$322.

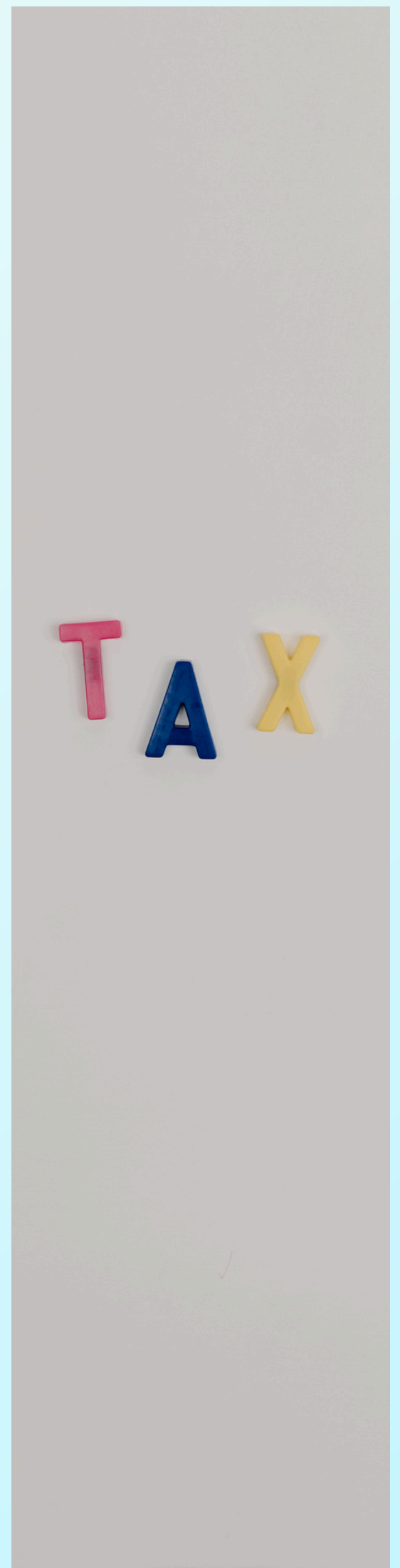
There is certainly a massive imbalance between nature's genuine value and the monetary value that humans attach to it. To fill in this gap, it is imperative that economists gauge the 'right' carbon price, which precisely equates the economic and ecological costs of carbon. There are, however, other conditions which must be met. For instance, the carbon tax must be hefty enough to encourage producers to reduce their emissions, but must not be steep enough to cause unwarranted market adversity. As time evolves, the carbon tax rate must also evolve, i.e. increase to not lose its real value. Tying a 'safety valve' to the atmospheric carbon emissions, that is, adjusting the carbon tax to match changes in emission levels, can offer some authority over regulating future CO2 emissions.

Alternatively, what if the IAM's calculation of carbon's social cost was grounded in environmental repercussions rather than economic upshots? What if the framework began with biome shifts as an indicator of global warming instead of an economy's potential fuel usage for some preposterously huge output production? Pricing carbon as per its financial implications on firms can be replaced with pricing carbon as per its deteriorating impacts on environmental services. The price may be determined by reckoning the economic costs of replacing a natural service with artificial investments. As an example, the Arctic biome is increasingly becoming shrub-dominated due to global warming. As a result, the same permafrost which earlier acted as a carbon sink is now turning into a carbon source, with humans losing this natural service. Thus, the costs of point-source carbon capture in the Arctic may be modelled to establish a carbon price.

While this is one example of how the carbon pricing mechanism can be made inclusive for ecological facilities, it is long overdue for economists to start aiming for a sustainably sound market in ways that protect our ecosystem.

Bibliography

- <https://doi.org/10.1139/as-2025-0066>
- <https://home.treasury.gov/system/files/131/WP-115.pdf>
- <https://www.deccanherald.com/india/nature-doesnt-issue-invoices-gives-everything-free-of-cost-environmental-economist-1195533.html>
- <https://science.nasa.gov/earth/earth-observatory/the-greening-arctic-80637/>
- https://19january2021snapshot.epa.gov/sites/static/files/2014-12/documents/the_social_cost_of_carbon_made_simple.pdf
- <https://ourworldindata.org/grapher/co2-mitigation-15c?time=1980..2100>
- <https://doi.org/10.1016/j.jedc.2013.01.001>
- <https://www.un.org/en/climatechange/science/causes-effects-climate-change>
- <https://www.un.org/sg/en/content/sg/statements/2021-08-09/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment>
- <https://doi.org/10.1093/reep/rew018>



LOCKED IN THE BRAIN: DO OUR FEELINGS ACTUALLY BELONG TO US?

Remas Ahmed

I imagine buying an injection loaded with a specific emotion like a sudden fear of heights or the vivid memory of a vacation to a country you've never visited. Imagine shooting that syringe into your arm and instantly feeling it. Sounds like wild sci-fi, right? But in today's neuroscience labs, something surprisingly close is becoming a jaw-dropping reality.

In 2018, neuroscientist David Glanzman conducted a bizarre experiment using *Aplysia californica*, a giant marine sea slug. Scientists love these creatures because their neurons are massive—large enough to be seen with the naked eye—and their nervous system is beautifully simple. While the human brain is a chaotic web of 86 billion neurons, this slug gets by with just 20,000, making it much easier to track a memory.

The experiment began by "teaching" a group of slugs to be afraid via mild, harmless electric shocks to their tails: five shocks a day over two days. Consequently, the slugs developed a survival reflex called the gill-withdrawal reflex. Before the shocks, a light tap made them contract their gills for just a second. But after the trauma, that same gentle tap made them freeze and hide their gills for a whopping 50 seconds. They had learned to expect danger. Then came the mind-blowing part. The scientists took a completely different group of peaceful, shock-free sea slugs and extracted RNA from the nervous tissue of the trained. They then injected that RNA straight into the untrained ones.

The results stunned researchers. When the previously calm slugs were tapped, they panicked, tightly contracting their gills for 40 seconds. They behaved as if they had personally experienced the electric shocks.

To verify the finding, the team placed untrained slug neurons in Petri dishes and poured the "fearful RNA" over them. Instantly, the isolated cells went on high alert, becoming hypersensitive and began forming new physical connections that mirrored the brain structure of a traumatized slug.

This experiment sent an earthquake through the scientific world. For a century, neuroscience worshiped Donald Hebb's classic rule: "cells that fire together, wire together," believing memories were exclusively locked inside physical networks of electrical wires called synapses. But Glanzman transferred a memory without transferring a single wire. He proved that memory isn't just electrical wiring; it's a liquid, chemical recipe bubbling inside the cell.

On a molecular level, the injected RNA appears to influence gene activity through a process called epigenetic modification. Instead of changing the DNA code, the RNA snaps "chemical locks" (DNA methylation) onto genes responsible for relaxation, shutting them down. Simultaneously, it unfolds proteins called histones to blast open genes linked to anxiety, putting the cell in constant survival mode.

Does this mean we can inject human memories? Yes and no.

You cannot inject a memory of a face or a map. Complex, narrative memories require a massive symphony of billions of neurons firing across your hippocampus and cerebral cortex. RNA alone cannot copy that intricate architecture.



LOCKED IN THE BRAIN: DO OUR FEELINGS ACTUALLY BELONG TO US?

Remas Ahmed

However, RNA can transfer raw emotional states and physiological responses to stress, and we have proof that similar processes can happen in humans across generations. Take the tragic "Dutch Famine" of 1944. During World War II, a Nazi blockade forced pregnant women to survive on tulip bulbs. The extreme physiological stress altered the RNA in their bodies.

Decades later, scientists discovered that the grandchildren of these women inherited shockingly high rates of obesity, diabetes, and hyper-reactive anxiety. Even in times of abundance, their bodies had inherited RNA that carried a silent chemical warning: "The world outside is dangerous and starving. Stay anxious, and store fat."

Ultimately, a humble sea slug proved that memories are a fluid biological code written inside our cells. While our grandparents' traumas leave real imprints, we are not doomed. Our brains are incredibly resilient. Through mindfulness, breaking bad habits, and changing our environments, we have the power to rewrite that code.

Yet, a haunting question remains: If experiences can be chemically written and passed down inside our cells... then do all the feelings we wake up with today actually belong to us?



Bibliography:

- <https://www.eneuro.org/content/5/3/ENEURO.0038-18.2018#ref-22>
- <https://www.bbc.com/news/science-environment-44111476>
- <https://www.scientificamerican.com/article/memory-transferred-between-snails-challenging-standard-theory-of-how-the-brain-remembers/>

THE COMFORT PARADOX: EMOTIONAL SUPPORT ANIMALS AND THE MODERN TEEN MIND

Sofia Castro Figueredo

Teen mental health has been getting a lot more attention in recent years, and it's honestly not something small anymore. The World Health Organization estimates that around one in seven people between 10 and 19 live with some kind of mental health condition. That's a pretty big number, and it shows this is rare. Anxiety and depression are among the most common issues, and anxiety in particular affects many teenagers in their everyday lives.

The thing about anxiety is that it doesn't look the same for everyone. Some teens feel like they're constantly worried, even when there's no obvious reason. Others might just feel on edge all the time, get irritated easily, or struggle to focus. And it's not something that only happens "in the mind". It can show up physically too. A racing heart, tight muscles, or trouble sleeping are all common symptoms.

A lot of this comes from everyday pressures: school, expectations, fear of failing, comparing yourself to others, or even worrying about how people see you. Since adolescence is already a stage full of change, these pressures can feel even heavier.

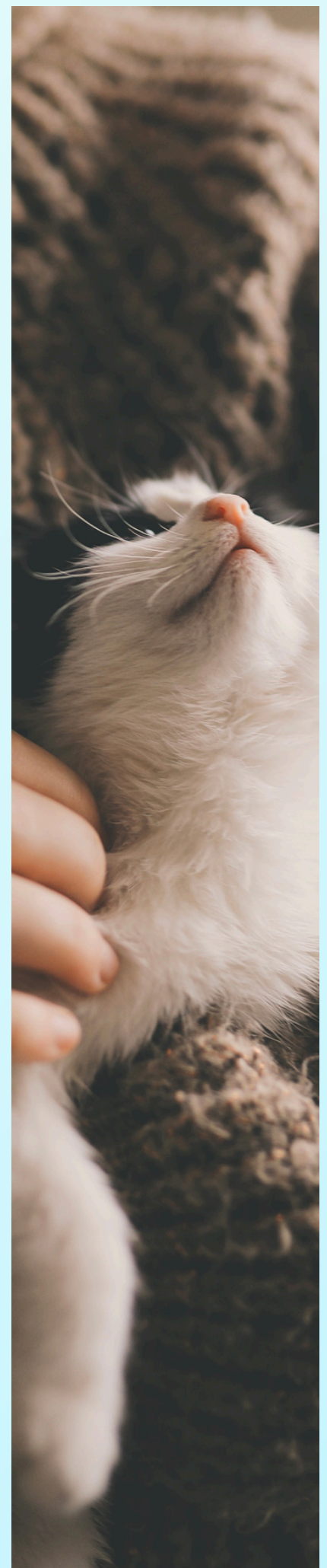
If anxiety is left unmanaged for too long, it can start affecting academic performance, relationships, and general well-being. It doesn't always fade away on its own.

Because of this, people have started looking at different ways to support mental health. One option that's been getting more attention is emotional support animals. Put simply, these are pets that help people feel calmer, safer, and less alone. They aren't trained like service animals, so they don't perform specific tasks. What matters most is the bond that forms between the animal and the person. Dogs are the most common choice, but emotional support animals can also be cats, rabbits, or almost any animal that fits someone's situation.

Spending time with animals can genuinely make a difference. It might sound simple, but it helps more than people expect. Being around a pet can make someone create a sense of comfort and security, especially during stressful moments. Some studies even suggest that interacting with animals can lower stress levels, blood pressure, and heart rate. So it's not just a matter of "feeling better", there are real measurable physical effects too.

Another important benefit is routine. Taking care of a pet means feeding it, spending time with it, and maybe taking it out for walks. It sounds basic, but these responsibilities create structure in a person's day. For teenagers who feel overwhelmed or unstable, this sense of routine can be surprisingly helpful. On top of that, pets offer companionship without judgment. They don't compare or place expectations on you, and that alone can really help reduce feelings of loneliness.

There are also studies on animal-assisted therapies, and the results are mostly positive. For example, interacting with dogs has been linked to lower stress compared to other types of activities. People also often report feeling better emotionally after spending time with animals. Still, it's not exactly the same for everyone. Different people react in different ways, and context matters a lot.



THE COMFORT PARADOX: EMOTIONAL SUPPORT ANIMALS AND THE MODERN TEEN MIND

Sofia Castro Figueredo

Even so, one thing is clear: emotional support animals can help, but they're not a replacement for professional mental health care. Therapy and medical support are still necessary in many cases. Owning a pet is also a significant responsibility that requires time, care, and the right conditions. It's equally important not to confuse emotional support animals with service animals, which are trained to perform specific tasks for people with disabilities.

As mental health challenges among teenagers continue to rise, emotional support animals are becoming one more way people try to cope. They don't solve everything, and they're not meant to. But sometimes, having something simple and constant, like a pet, can make daily life feel a little more manageable. For some people, that already matters a lot.



Bibliography:

- <https://www.who.int/es/news-room/fact-sheets/detail/adolescent-mental-health>
- <https://orbiuadicciones.com/familia/trastornos-mas-comunes-en-la-adolescencia/>
- <https://childmind.org/es/articulo/de-que-manera-la-ansiedad-afecta-a-los-adolescentes/>
- <https://creativehealingphilly.com/blog/emotional-support-animals-for-teens>

WHAT DOES ONE MEAN WHEN THEY SAY “THAT ALTERED MY BRAIN CHEMISTRY”? : EXPLORING THE SCIENCE OF HOW EVERYDAY HAPPENINGS AFFECT THE MIND

SaiShruthi Avutapalli

Emma Adam once said, *“Sometimes it's biology influencing emotion, in other cases it's emotions affecting biology, so they're intricately intertwined; to focus solely on one or the other is not helpful.”*

This one sentence correctly encompasses the bottom-line philosophy behind the workings of our mind. Every moment of every day is spent living through an experience, each one on an eclectic spectrum ranging from mundanity to novelty, with in-betweens of transformativeness, atrocity, profoundness, and surreality, amidst many more states of being. With so many potential occurrences on a day-to-day basis, there are equally many, and sometimes more, possibilities of cognitive responses to these happenings. These retorts, again, range across a wide spectrum of attention, perception, and comprehension, amongst other things. Neurological, psychobiological, and cognitive processes (like dopamine micro releases, cortisol curves, cortical thinning due to stress, olfactory-limbic triggers, etc, to name a few out of many) take place as a result of repeatedly experiencing these occurrences.

To demonstrate an example: have you ever experienced literally going back in time because of smelling something familiar or nostalgic? This is essentially a sensory occurrence that triggers the olfactory bulb. Odors take a direct route to the amygdala and the hippocampus. These regions belong to the limbic system deep within the brain's medial temporal lobes, which are related to emotion and memory. In fact, there's a famous term- “Proustian moment”-coined from Marcel Proust's novel *In Search of Lost Time*. This term quite literally describes how nostalgia and reminiscent emotions are felt as a result of sensory experiences. This is an example of a “micro” trigger, something that happens in a few seconds, sometimes milliseconds, and lasts just as long.

Things like momentary fright upon a jumpscare, feelings of fight-or-flight (amygdala hijack), moments of inspiration, ecstasy, etc., cause dopamine levels to spike and drop instantaneously. These feelings are not only defined by everyday occurrences, but they also shape how every moment is spent.

While the above examples cover micro triggers, stimuli like these occur at several scales that are categorized based on their level and duration of impact. Classified into microscopic, mesoscopic, and macroscopic, each type exhibits a different level of influence on one's cognitive, biological, and neuropsychological responsiveness. For instance, stimulating activities like walking and exercise help balance what is called the “diurnal cortisol curve”, which maps the salivary hormone's natural peak. A flatter curve is associated with chronic stress and pressure. Stimulating activities help keep it balanced. Another trigger-induced phenomenon is when the prefrontal cortex goes “offline” under high stress, which affects decision-making.

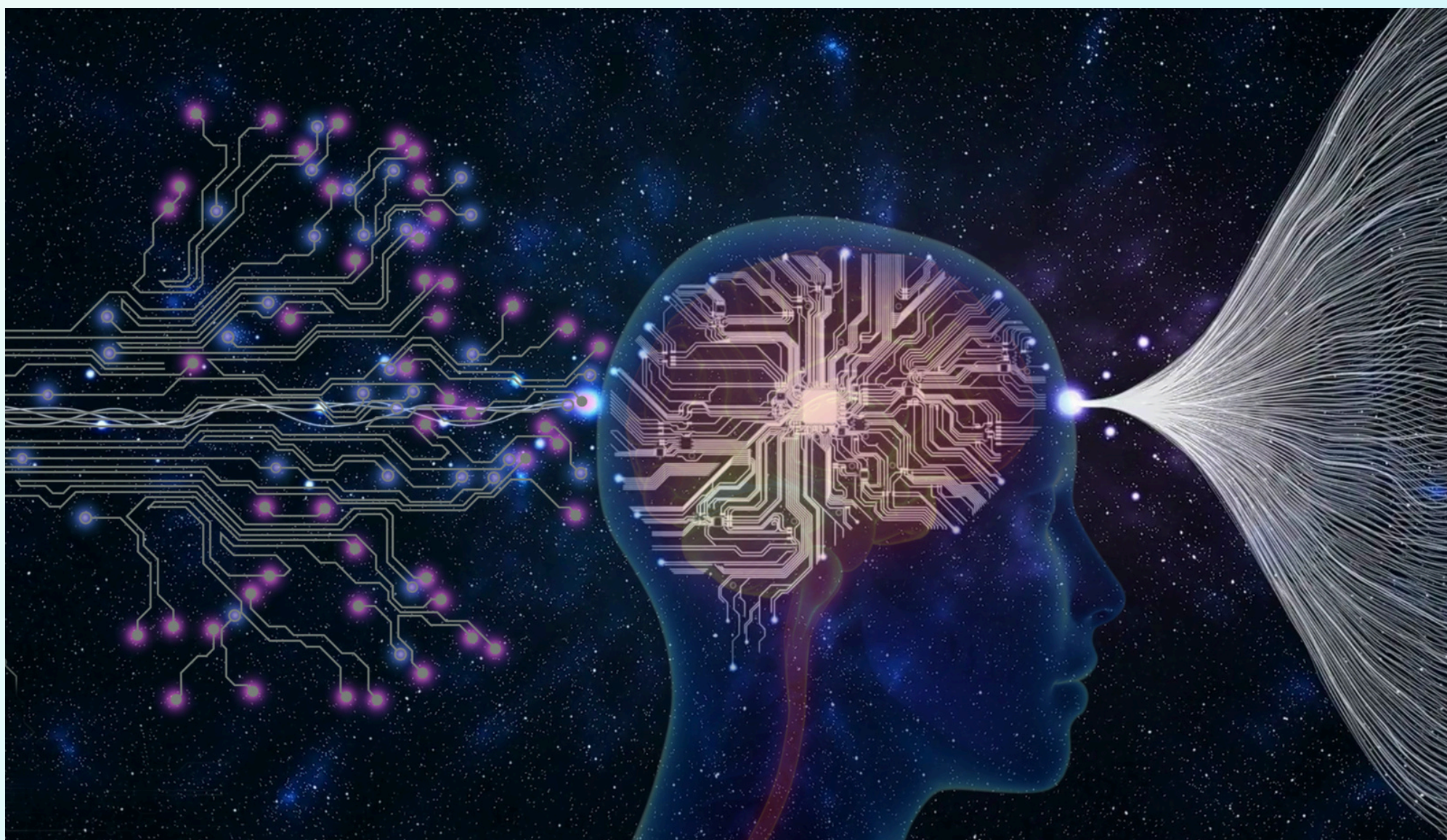
The “thinking brain” shuts down as a response to alarming stimuli, thereby affecting decision-making.



WHAT DOES ONE MEAN WHEN THEY SAY “THAT ALTERED MY BRAIN CHEMISTRY”? : EXPLORING THE SCIENCE OF HOW EVERYDAY HAPPENINGS AFFECT THE MIND

SaiShruthi Avutapalli

Directly or indirectly, therefore, all the happenings in our lives and the choices leading up to them play a crucial role in framing our brain's working. This directly has an impact on prime faculties like memory retention, decision-making, emotional regulation, imagination, when it comes down to it, even our physical bodily functioning, among thousands of other activities. It is an inevitable phenomenon that does not care to filter out the good over the bad, which is why it is important to remember that conscious decisions and choices under our control must be properly considered before being acted upon. For better or for worse, our brains hold the power to rewire themselves in accordance with life's curveballs - so remember, give yourself some grace. Intentionality and the power of will go a long way!



Bibliography:

- <https://www.bps.org.uk/psychologist/chemical-brain>
- <https://www.sciencedirect.com/topics/social-sciences/cognitive-response>
- <https://news.harvard.edu/gazette/story/2020/02/how-scent-emotion-and-memory-are-intertwined-and-exploited/>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC5568897/>
- <https://www.verywellmind.com/what-is-brain-plasticity-2794886>

DIGITAL THERAPY: WHY GEN Z IS TURNING TO AI FOR MENTAL HEALTH SUPPORT

Iordan Valério da Silva

A survey conducted by BasePoint BreakThrough reveals that 51% of Americans now use mental health-related language in everyday conversations, rising to 74% among Generation Z (people born between 1997 and 2012). Despite being more open to discussing the subject, many young people still face difficulties accessing therapy and have been leading a shift in mental health access by using Artificial Intelligence (AI) as a form of emotional support. The same study also indicates that approximately 44% of Gen Z use AI chatbots for emotional support.

But what exactly is leading these young adults to turn to AI as a form of psychological support instead of seeking traditional therapy?

Studies from the Columbia University Mailman School of Public Health indicate that in the United States, “financial barriers, such as lack of health insurance coverage and high out-of-pocket costs, are major obstacles to seeking mental health care.” The same issue can also be observed in several other countries. In general, factors such as fear of judgment, difficulty accessing professionals, and the limited availability of mental health services also act as barriers to mental health care. At the same time, young people’s familiarity with digital tools in their daily lives has contributed to the growing use of AI as a way to deal with these challenges.

Generation Z is considered the generation most affected by mental health disorders when compared to previous generations. Many young people experience high levels of social anxiety and difficulty communicating face-to-face, while also feeling more comfortable interacting through screens. According to studies, this happens because they grew up surrounded by information and communication technologies during a period in which technology was transforming the way society lives and socializes. In other words, this context contributed to the stronger development of digital skills within a generation while also changing the ways people interact socially.

This helps explain why young people tend to feel more comfortable with screen-mediated interactions. According to Medicina S/A — a Brazilian health magazine — there has been an exponential increase in the demand for online psychotherapy in Brazil since the COVID-19 pandemic. In addition to breaking certain barriers, such as the lack of professionals in smaller cities and providing more privacy, online therapy also creates a greater sense of comfort for digital natives.

Even so, high costs and the limited availability of professionals still lead some individuals to seek quick responses of empathy and emotional support, and AI can provide this for free and at any moment it is needed.

In fact, AI can be useful in this context, as a study published by the Iranian Journal of Psychiatry showed that Artificial Intelligence-powered Cognitive Behavioral Therapy (CBT) chatbots resulted in reductions in users’ levels of depression and anxiety. However, trusting human emotional well-being to algorithms raises concerns regarding ethical issues, privacy risks, and especially the lack of a sensitive human understanding of emotional nuances. Traditional therapy, after all, balances emotional support with the challenge of confronting patients’ contradictions and questioning them in order to promote the change they seek.



DIGITAL THERAPY: WHY GEN Z IS TURNING TO AI FOR MENTAL HEALTH SUPPORT

Iordan Valério da Silva

On the other hand, recent studies indicate that AI may reinforce users' biases — almost as if it were flattering them — reduce their willingness to solve their own problems, and increase users' emotional attachment in ways that may keep them dependent on these systems and trapped in a comfort zone. However, despite what many headlines suggest, some data points to a scenario in which Generation Z appears to be more cautious about AI use.

A recent Harvard Business Review study shows that a larger portion of Gen Z primarily uses AI as a productivity tool, and even so, they also express concerns about the impacts of excessive dependence on this technology. The same study also found that 79% of young adults fear that AI could make people lazier and less intelligent. This cautious attitude challenges the stigma that most Gen Z individuals use algorithms as friends or therapists.

Nevertheless, it remains true that a portion of society — largely made up of Generation Z — has been seeking emotional support through Artificial Intelligence due to difficulties accessing traditional therapy and because of a relationship with technology that goes beyond functional use. In general, however, an algorithm cannot replicate all the human aspects of psychotherapy, nor can it provide diagnoses or properly deal with situations of extreme emotional crisis. Therefore, the risk of merely bypassing problems instead of actually confronting them is real. For this reason, these tools should be used as complements rather than substitutes for traditional therapy, as some users have begun to do.

Beyond any conclusions regarding the ethics, safety, or effectiveness of this shift in the way emotional support is sought, this “digitalization of comfort” reveals the impact that the environment in which Generation Z grew up has had on shaping its behavior.



Bibliography:

- <https://basepointbreakthrough.com/blog/american-mental-health-culture-trends/>
- <https://www.publichealth.columbia.edu/news/study-shows-significant-rise-psychotherapy-use-among-adults-gains-are-uneven-across-socioeconomic-groups>
- <https://medicinasa.com.br/psicologia-onl>
- <https://doi.org/10.3389/fpsy.2023.1190084>
- <https://doi.org/10.18502/ijps.v20i1.17395>
- <https://hbr.org/2026/01/how-gen-z-uses-gen-ai-and-why-it-worries-them>
- <https://doi.org/10.1126/science.aec8352>
- <https://revistavalore.emnuvens.com.br/valore/article/view/187>
- <https://repositorio.uniceub.br/jspui/bitstream/235/6981/1/21054687.pdf>

FROM JET FUEL TO WINDOW SEAT: HOW AIRLINE SEATING INCITES CLASS WARFARE

Carmel Chen

Known best for its blaring yellow exterior and cheaper rates compared to its more acclaimed counterparts, Spirit Airlines is not often the first name that comes to mind when planning an upcoming business trip or a family vacation. Recognized for its low ticket price at the expense of standardized service, Spirit represents the alternate travel plan: in other words, simply another way to migrate from point A to point B. Its recent shutdown, however, unveils a larger void in the convenience of air travel and where our expectations fall short.

While Spirit had filed previously for bankruptcy several times since 2024, operations officially came to a halt on May 2, 2026, after company officials turned down a bailout proposal by the Trump administration. That morning, passengers across the nation were faced with an abrupt message: "To our Guests: all flights have been cancelled, and customer service is no longer available". In an era of progress, it seems as if the fallout of Spirit is simply one airborne drift in the winds: a product of weakness in a time of innovation and frequent reinvention. Yet, the issue does not stop at the airport terminal. Rather, it follows into our homes, to our friends' new apartments, and across continents. At its core, Spirit Airlines represents the original, wholehearted goal of air travel: to provide passengers with an option to travel from one place to another entirely different one.

We've become thoroughly accustomed to slinging our luggage into the overhead bin, wedging in our earplugs, and readying ourselves for the nearby baby in your cabinet to begin wailing for the next few hours that we often forget how revolutionary air travel itself is.

When they arrived in the 1910s, even airplanes, equipped with seats for only six passengers and one pilot, were a mode of transportation most Americans would rather not endure due to the lack of interior soundproofing and their claustrophobic size. Additionally, air travel was a luxury few could afford—at the time, the price of a transcontinental ticket was half of that of a car.

It wasn't until the 1950s, after wartime restrictions during the Second World War were lifted and technological advancement sprang across the globe, that air travel became popular. Airlines implemented exclusionary policies towards African Americans and profited at the expense of their female flight attendants by way of standardized dress codes, nitpicking each aspect of an attendant's appearance from her hairdo to her shade of lipstick. By the 1970s, air travel had become more adjacent to what we know today: the jet engine, safety precautions such as the oxygen mask, and of course, a new social hierarchy marked off by plane cabins.

Airplane seating is perhaps the paragon of self-imposed class division. Passengers, already frustrated by the laborious process of passing through TSA, consuming overpriced airport grub, and waiting in zigzagging lines for the restroom, are hardly entertained by the divided location of their airplane seating.

Airplane seating adapted to the needs of customers, adding in additional legroom, tray tables, and a reclining setting by the 1930s.



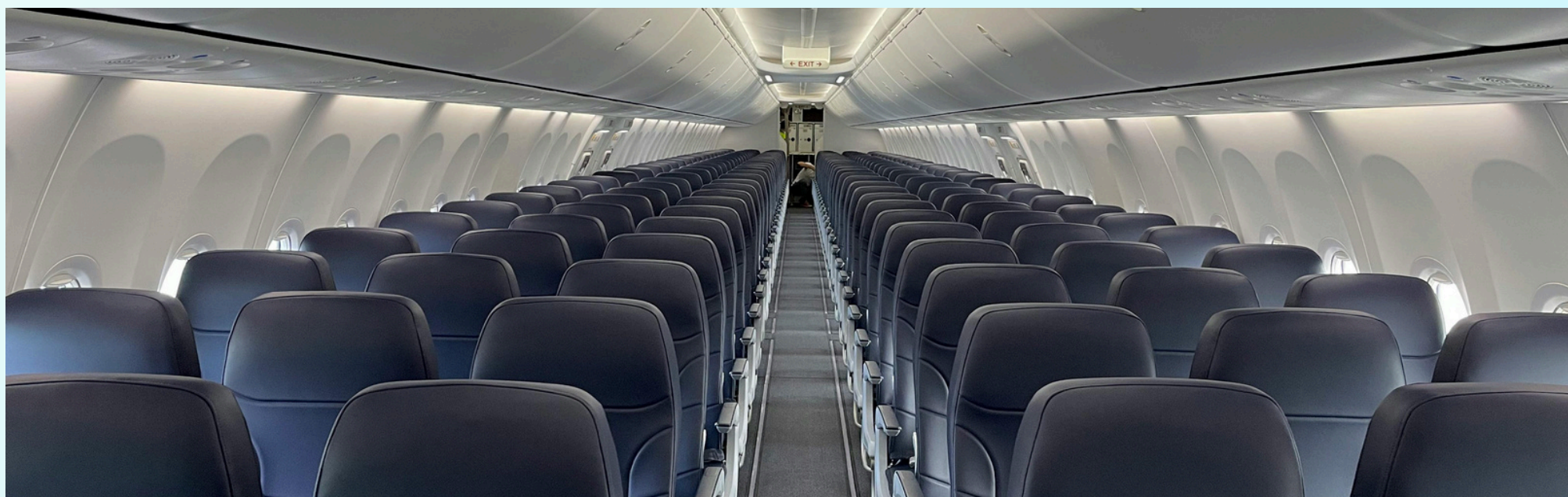
FROM JET FUEL TO WINDOW SEAT: HOW AIRLINE SEATING INCITES CLASS WARFARE

Carmel Chen

But between the mid-twentieth century and recent years, your designated cabinet has morphed into a status symbol: a signifier of your worth in the eyes of an airline conglomerate. Research and analysis have revealed that social status, or how passengers perceive their own class in relation to other passengers, can dampen their experience. Perception of class division within the cramped tunnels may explain the rowdy behavior of some guests: those in economy demand the lavish privileges of those in first and business class, whereas the latter often act in relation to their entitlement. Around 84% of airline conflicts occur among passengers in economy; it is undeniable that separate airline seating creates some form of class warfare.

The airplane as a whole serves as a microscopic view of class division, where the wealthy are provided with greater legroom instead of social mobility. Experts have begun examining the long-term ramifications of airplane seating, concluding that current layouts generate antisocial behavior and increase aggression by passengers.

After all, aren't all passengers fulfilling the same objective? It is not enough to simply criticize the lowly conditions in which airline arrangements have been created, but to question exactly why companies incentivize passengers with certain privileges that are not accessible to all. The answer turns the motives of airline corporations on their heads: in an attempt to foster a safe space for their guests, the designs of airplane seating and the pre-conceived reputations of some airlines compared to others result only in greater class division. Let us remind ourselves of Spirit's importance during its short lifespan in the world of air travel. Spirit symbolized the core purpose of air travel: to connect us across continents and cities, regardless of how much legroom you demanded.



Bibliography:

- <https://www.theguardian.com/us-news/2026/may/09/travelers-feel-squeeze-summer-travel-iran-war-fuel>
- <https://www.library.hbs.edu/working-knowledge/airplane-design-brings-out-the-class-warfare-in-us-all>
- <https://www.forbes.com/sites/greatspeculations/2026/04/28/how-a-fuel-crisis-pushed-spirit-airlines-toward-government-ownership/?ctpv=searchpage>
- <https://www.cnn.com/2026/05/02/spirit-airlines-shutdown-inside-the-final-hours.html>
- <https://airandspace.si.edu/explore/stories/evolution-commercial-flying-experience>
- <https://www.prnewswire.com/news-releases/artemis-aerospace-investigates-the-evolution-of-the-passenger-airline-seat-302247820.html>

A BAN ON TASTE IN GHANA: THE CONTROVERSY OVER TSOFI CONSUMPTION

Prince Senanu Bedzo

You may assume that the worst betrayal a person can experience is your friend not inviting you to a party. Or your family entertaining visitors with your little secrets. Well, this might be debatable, but imagine your favorite delicacy being banned by the government. Isn't that the worst form of betrayal?

Let's talk about tsofi, a deeply fried turkey tail which is a popular street delicacy in Ghana. Any observant traveler will attest to its popularity in places like Nsawam, Suhun, Sogakope, Ada, and other parts of Ghana. Its oily taste makes it a preferred accompaniment to dishes like kenkey, stew, rice or even bread.

In 1999, the Ministry of Trade and Industry, banned the importation of turkey tails into the country. But why would a ministry ban such a beloved delicacy? According to The Food and Drugs Authority, the high level of fat these turkey tails contained exceeded the standard of fats for poultry products. Despite the public announcement of the ban, tsofi continued to be sold on the streets of Ghana. Some even say that vendors use coded names like abolooway, domedo, and other funny names which prevents authorities from noticing. This indicates the ineffectiveness of the ban, as Ghanaians continue to consume tsofi regardless. Unfortunately for its loyal consumers, the Food and Drugs Authority has publicly announced a reinforcement of the faintly existing twenty seven years ban, reigniting questions from some Ghanaians. Why would the government place such a ban on a popular delicacy?

One reason lies in its health implications. Turkey tails already contain excessive amounts of fat, coupled with the deep frying process, which increases the level of saturated fat. The World Health Organization has declared saturated fat as a risk factor for hypertension. Regular consumption of tsofi can increase your cholesterol overtime, building up plaque and compressing your blood vessels. Over time, this puts great pressure on your heart, forcing it to work harder to pump blood throughout the body.

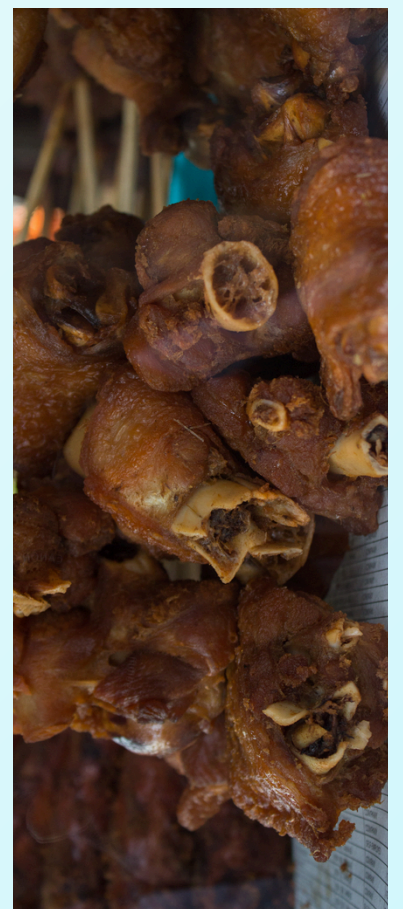
Another health risk is heart disease. The Food and Drugs Authority warned that the deposits of the cholesterol prevents the arteries from pumping blood to the heart as well as the entry of oxygen, increasing the risk of cardiovascular diseases. Other reports that the re-use of the cooking oil by some vendors when preparing tsofi can contribute to certain cancers, including colon, lung, and breast cancer.

Even though the public warning by the Food and Drugs Authority has raised public awareness, will enforcement be effective? There are restrictions on importation but some Ghanaians still travel to neighboring countries like Togo to smuggle turkey tails into the country. Yet the issue is not really about smuggling if you look at it critically. Rather, it reveals to us how government attempts to ensure public safety can sometimes prove futile due to cultural preferences.

After all, can you really ban a taste?

Bibliography:

- <https://www.citinewsroom.com/2026/05/fda-explains-why-banned-tsofi-is-still-sold-in-ghana/>
- <https://www.gbcghanaonline.com/general/tsofi-ghana-banned/2026/>
- <https://www.who.int/news-room/fact-sheets/detail/hypertension>
- https://commons.wikimedia.org/wiki/File:Fried_Turkey_%28Tsofi%29.jpg



EUPHEMISM AND EXAGGERATION: RHETORICAL DEVICES THAT EXTEND BEYOND MERE NUANCED INTERPRETATION

Teu-Khanh Phuong

In 2019, The Guardian decided to change their use of terminology when describing the current climatic situation that Earth is facing, namely changing the phrase “climate change” to “climate crisis” or “climate emergency”. Climate change is one of the most commonly used terms for various catastrophes, encompassing rising sea levels, global warming, and acidification. However, in updating their style guide, The Guardian intended to focus on terms that more specifically illustrate varying environmental crises, ensuring scientific credibility and delivering precise information to readers on crucial social issues. The editor-in-chief, Katharine Viner, particularly stated: “The phrase ‘climate change’, for example, sounds rather passive and gentle when what scientists are talking about is a catastrophe for humanity.” At the other end of the spectrum, “climate crisis” emphasises the broader impact of atmospheric conditions, implying how climatic conditions extend beyond mere alterations in temperature. This shift in terminology can also be observed among climate scientists and organisations worldwide, in which stronger language use is typically associated with the seriousness of ecological degradation.

Fast forward to 2026, in a newly commissioned report presented to European ministers before the WHO on the 16th and 17th of May, the independent pan-European commission on climate and health recognised the climate crisis as a global health emergency, urging the WHO to officially declare it as a “public health emergency of international concern” (Pheic). “Pheics” are considered the highest alert that WHO can declare, with the sole purpose of triggering a cooperative response and public awareness at the international level.

From climate change to climate crisis and finally, a public health emergency, the perception of climate conditions has fundamentally shifted in terms of urgency and spontaneity. This prominent example of how different words or phrasing can significantly modify the severity of a climate phenomenon precisely demonstrates the prevalence of euphemism and exaggeration in today’s globalised world. In this specific context, “climate change” reflects a euphemism, while “climate crisis” or “public health emergency” can be viewed as exaggerations, depending on public perception and political beliefs.

The above case is just one in many examples of euphemism and exaggeration. In fact, these two rhetorical devices have been made ubiquitous in the journalistic world, where brevity and precision are preferable in accordance with the public’s interests or expectations. Therefore, the question remains: Is such use of these devices a clear destruction of the pure meaning of language, or does it reflect nuances within spoken language and written content? To find the most satisfying answers to this concurring issue, one must analyse both aspects of how euphemism and exaggeration can influence language comprehension.



EUPHEMISM AND EXAGGERATION: RHETORICAL DEVICES THAT EXTEND BEYOND MERE NUANCED INTERPRETATION

Teu-Khanh Phuong

On the whole, misrepresentation or falsification of facts is evident in both the usage of euphemism and exaggeration, where tactics of either severity reduction or exacerbation are being employed. In professional settings, colleagues use euphemisms to soften uncomfortable truths and be respectful in front of the management board. Meanwhile, exaggeration plays a crucial role in literature or news articles, where instances of reassurance, glorification, and threat are evident. Notably, Katrín Jakobsdóttir, a former prime minister of Iceland who chaired the commission mentioned at the beginning of the article, said to The Guardian: “The way to challenge climate scepticism and misinformation is simple: make it personal.” “Making it personal” would lead to more people being aware of the ongoing crisis affecting their livelihoods. Exaggerated phrases such as shortening lives, filling hospitals, and recording excessive death tolls potentially exploit the psychological vulnerability of individuals, making them more prone to taking necessary combating actions.

Nonetheless, The Economist devoted one of its culture editions to an article entitled “Euphemism and Exaggeration are both dangers to language” in late 2023, implying the detrimental effects of these two rhetorical devices in the media world. Throughout history, language has never been neutral. More than just a regular communication tool, politicians and news media outlets alike use language to influence collective behaviour and reinforce existing notions in society through distinct methods of language interpretation. From political propaganda during wartime to slogans in the modern era, language emerges as a powerful mechanism for public persuasion. This manipulation of language use has been further accelerated by the social media boom, leading to what The Scientist framed in their article: the social-mediafication of writing.

The social-mediafication of writing refers to the profound influence that social media has on individuals’ style, structure, and purpose of content, such as journalism or regular posts. When words matter on social networking sites, writing gradually transforms into a purely interactive form rather than something reflective. Writers often characterise this modification in writing and language usage by its provocativeness and impact on readers, often lessening words or altering the original meaning. With the focus of the readers in mind, writers develop a tendency to shape their content depending on how it will be perceived and shared among the general public. Therefore, writing seems either exaggerated or less controversial by using rhetorical devices.

Because language keeps certain sets of ideas in power, spoken language and written text in the digital age have given themselves the platform to amplify certain ideologies in society. According to The Economist reporting on euphemism and exaggeration, originally, “chauvinism” is a term describing an unreasonable belief that one group is superior to others. As time passes, “sexism” is used, and gradually, the final option is “misogyny”, which has completely increased in levels of extremism. The freedom of expression and speech undoubtedly results in verbal extremism, especially in the digital age, where billions of people can transfer their thoughts online in an instant. Not only do such hyperbolic words wrongly capture the intrinsic message of current issues, but they can also negatively affect young readers’ understanding.

Despite occasional occurrences of inaccurate reporting, it is undeniable that the utilisation of these rhetorical devices has uniquely shaped journalism and news coverage. Therefore, this article is not intended to persuade readers to abandon rhetorical tactics or always focus on the pure meaning of language. Rather, it reminds future generations that subtle alterations in language use can significantly impact the public’s perception, either positively or negatively, in today’s plurilateral society.



EUPHEMISM AND EXAGGERATION: RHETORICAL DEVICES THAT EXTEND BEYOND MERE NUANCED INTERPRETATION

Teu-Khanh Phuong

Bibliography:

- <https://www.theguardian.com/environment/2019/may/17/why-the-guardian-is-changing-the-language-it-uses-about-the-environment>
- <https://www.theguardian.com/environment/2026/may/16/who-should-declare-climate-crisis-global-public-health-emergency-experts-say>
- <https://www.theguardian.com/environment/2019/oct/16/guardian-language-changes-climate-environment>
- <https://www.economist.com/culture/2023/11/23/euphemism-and-exaggeration-are-both-dangers-to-language>
- <https://fr.scribd.com/document/739178161/Euphemism-ZJ>
- https://fr.scribd.com/document/247287317/16-M-S-Ansari?_gl=1*1f76tkw*_gcl_au*OTk4NTIwNDg0LjE3NzE2ODc0NTk
- <https://time.com/archive/6859010/essay-a-world-of-exaggeration/>
- <https://www.britannica.com/art/euphemism>



PAREIDOLIA: WHY HUMANS SEE FACES IN RANDOM OBJECTS

Thao Nguyen Hoang

Pareidolia in Daily Life

Almost everyone has seen something familiar where it does not really exist. We all see faces in the clouds, smiles on electrical outlets, animal shapes in spilled coffee, and figures on the surface of the moon, and we do it so often that we hardly ever question these moments.

At first, these experiences may appear to be random or meaningless. And yet they tell us something startlingly important about the human mind. Why does the brain always find familiar meaning in things that are actually unrelated? If these patterns are not really there, why do they look so convincing?

This is called Pareidolia and is a psychological phenomenon that involves a tendency to perceive familiar images or patterns in random data. Pareidolia is typically written off as imagination or visual illusion, but scientists argue that it might be a sign of one of the brain's most critical cognitive skills: fast pattern recognition.

The brain as a pattern recognition machine

The human brain is constantly processing huge amounts of sensory information. It looks for patterns that seem familiar, rather than looking at each detail in isolation. Faces are of particular importance because humans are very dependent upon social recognition and emotional expression.

Researchers have identified a region called the Fusiform Face Area, which is a major player in facial recognition. Studies in Nature Neuroscience showed that activity in this region is strongly associated with recognizing and identifying faces.

Other studies suggest that the brain may respond to face-like arrangements even in the absence of an actual face. In a 2023 study published in Scientific Reports, researchers found that stimulating the brain's face-perception network increased the chances of participants seeing illusory faces in random visual stimuli.

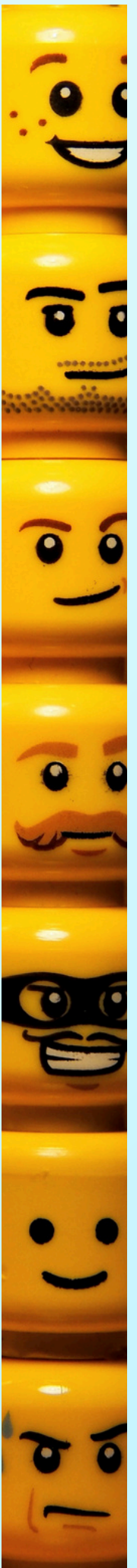
Which is why two windows and a door can suddenly look like a face, or the headlights of a car can seem to convey emotion. Often, the brain responds to the possibility of familiarity before it has fully processed whether the image is actually meaningful.

The Selective Advantage

Seeing this through the evolutionary perspective, this way of thinking may have been a crucial instinct for survival. In certain environments that feel unsafe, our predecessors' fight or flight instincts activate. In this state, their minds are searching for potential threats. From this, the brain has evolved to prioritize speed over accuracy. It might be foolish to mistake a shadow for a man, but to mistake a real danger might be fatal. As a result, the human mind often prefers false positives over missed detection.

This trend was described by astronomer and science communicator Carl Sagan as one of the ways in which humans evolved to recognize patterns, and he said that humans are naturally wired to seek meaning in the ambiguous.

This interpretation is still upheld by modern researchers in 2026; a study in Royal Society Open Science found that participants frequently perceived faces in meaningless visual noise, particularly when the patterns were symmetrical.



PAREIDOLIA: WHY HUMANS SEE FACES IN RANDOM OBJECTS

Thao Nguyen Hoang

Beyond the Faces

Pareidolia is much more than facial recognition. Clouds take on shapes, tree bark looks like figures, stars bear symbols in between, and people see religious images in food or stone.

This tendency has historically affected mythology, narrative, spirituality, and art. Both the well-known “Man in the Moon” and the creation of constellations reflect mankind’s instinct to transform abstract visual information into recognizable forms and stories.

Research by developmental psychologist Kang Lee also indicates that facial configurations heavily influence visual perception. His experiments showed that changing the location of facial features can change how people see the shapes in the background — a demonstration of the brain’s sensitivity to the structure of faces.

Furthermore, scientists have found that even infants are sensitive to face-like configurations, suggesting that this ability may be present very early in human cognitive development.

Rethinking Illusion

The really interesting thing about pareidolia is that it shows you how perception works. The brain doesn’t just record reality as it appears. Instead, it is always interpreting, predicting, and organizing information in an attempt to make sense of incomplete input.

Today, pareidolia is also being used in the field of artificial intelligence to understand how computer vision systems process ambiguous images. But recent work in machine learning suggests that humans and A.I. systems “process uncertain visual information differently,” showing the complexity of human perception. So, what people see is determined not only by the environment, but also by the mind that looks for the familiar in that environment.

So, in this way, pareidolia may not be evidence that humans see too much but rather evidence that the human mind is wired to find meaning—even in uncertainty, ambiguity, and the unseen.

Bibliography

- Grill-Spector, K., Knouf, N., & Kanwisher, N. “The fusiform face area subserves face perception, not generic within-category identification.” *Nature Neuroscience*, 2004.
- Palmisano, A., Chiarantoni, G., Bossi, F., et al. “Face pareidolia is enhanced by 40 Hz transcranial alternating current stimulation (tACS) of the face perception network.” *Scientific Reports*, 2023.
- Lee, K., & Freire, A. “Effects of Face Configuration Change on Shape Perception: A New Illusion.” *Perception*, 1999.
- Zhou, L.-F., & Meng, M. “Do you see the ‘face’? Individual differences in face pareidolia.” *Philosophy and Psychology of Perception and Representation*, 2021.
- Barik, K., Daimi, S. N., Jones, R., et al. “A machine learning approach to predict perceptual decisions: an insight into face pareidolia.” *Brain Informatics*, 2019.
- Hamilton, M., Stent, S., DuTell, V., et al. “Seeing Faces in Things: A Model and Dataset for Pareidolia.” 2024.



EFL TEACHERS' BELIEFS AND PRACTICES IN DIFFERENTIATED INSTRUCTION WITHIN INCLUSIVE KAZAKHSTANI SCHOOLS

Kamila Dakhanova and Merey Amantay

In Kazakhstan, inclusive education has been officially adopted, but the gap between policy and classroom practice remains underexplored. This article draws on a qualitative study involving ten English as a Foreign Language (EFL) teachers to understand their perspectives on differentiated instruction and how they implement differentiated materials in inclusive mainstream classrooms.

The teachers in the study had direct experience working with diverse learners, including students with visual impairments, cognitive delays, attention difficulties, and varying English proficiency levels. However, teachers identified these needs themselves, without formal notification from school administrators. Teacher 5 shared: "I have worked with a student with a mental development delay. Compared to his peers, he struggled to acquire the lesson's topic as he had problems with memorising the content."

Regarding their perspectives, most teachers expressed positive attitudes toward differentiated instruction. Teacher 2 stated: "Easy tasks reduce anxiety among weaker students, while challenging tasks maintain interest among stronger students. Without differentiation, many students lose motivation." Teacher 4 added: "Differentiation is crucial for the emotional safety of the classroom."

Despite these positive views, teachers expressed strong dissatisfaction with official EFL materials from the Ministry of Education and Science (MoES). Teacher 1 said: "The official textbooks do not support very slow or very fast learners. There are almost no adapted tasks, so I often create my own materials, which takes a lot of time." Teacher 2 also noted: "The textbooks and materials are often too difficult for students' actual levels. Grammar and skill expectations are too high."

In practice, teachers attempt to modify worksheets by using larger fonts, adding pictures, reducing the number of exercises, or dividing materials into two categories without labeling them. Teacher 9 explained: "I divide worksheets into two categories — one for stronger students and one for weaker students — without labeling them as such, to prevent bullying while still adjusting to their levels." Despite these reported strategies, classroom observations of three teachers revealed a significant gap between beliefs and practice. In one 8th-grade class, two students with diverse needs received identical materials as everyone else. The teacher had not prepared differentiated tasks in advance.



EFL TEACHERS' BELIEFS AND PRACTICES IN DIFFERENTIATED INSTRUCTION WITHIN INCLUSIVE KAZAKHSTANI SCHOOLS

Kamila Dakhanova and Merey Amantay

In another observation, a teacher conducted a listening lesson. When an immigrant student arrived late, no alternative material was provided. A third teacher distributed the same grammar worksheet to all nine students, with no tiered versions available.

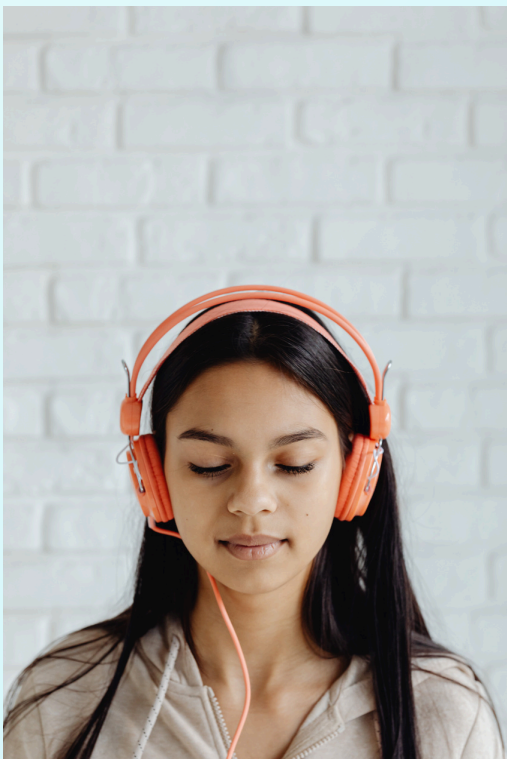
Teachers identified three barriers to implementing differentiated materials: time constraints, lack of institutional support, and insufficient professional training. Teacher 1 stated: "With 17 students, it is hard to prepare different tasks for everyone... making three versions of one worksheet takes hours." Teacher 8 added: "Every time I prepare them (materials), I end up spending the whole night there." Most critically, Teacher 1 remarked: "No training — I have learned differentiation by myself." These findings align with Turlubekova and Bugubayeva (2021), who found that inclusive schools often lack qualified specialists. Similarly, Sultanbekova (2019) critiqued that the national curriculum omits crucial guidance for teaching English to students with special needs.

Ethical Considerations: In this study, participation was entirely voluntary, and all participating educators were provided with informed consent prior to interviewing and observations. To ensure confidentiality, all names, institutional affiliations, and specific locations have been completely anonymized and information relating to participants' personal experiences were securely stored in password protected files on personal electronic devices and hard copies of interview transcriptions were kept in locked cabinets.

Overall, teachers' perspectives show that they understand and value differentiated instruction. However, without suitable MoES materials, time, or training, their ability to implement differentiated practices remains severely limited. Bridging this gap requires systematic reform, including textbooks with built-in differentiated tasks, mandatory training for EFL teachers, and stronger institutional support within schools.

Bibliography

- Sengerbekova, B. A., Alimbayeva, D. A., Ussen, G. M., & Avasi, V. (2024). Embracing inclusive education: EFL teachers' perceptions and practices. *Pedagogy and Science*, 72(1). <https://doi.org/10.48371/PEDS.2024.72.1.012>
- Sultanbekova, A. (2019). Teaching English as a foreign language to deaf and hard-of-hearing students at one school in Kazakhstan [Master's thesis, Nazarbayev University Graduate School of Education]. NU Repository. <http://nur.nu.edu.kz/handle/123456789/4309>
- Tomlinson, C. A. (2000). Differentiation of instruction in the elementary grades (ERIC Digest). ERIC Clearinghouse on Elementary and Early Childhood Education.
- Turlubekova, M. B., & Bugubayeva, R. O. (2021). Inclusive education in Kazakhstan: Analysis of the organization process and possibilities of its further development. *Central Asian Economic Review*, 3, 89-109. <https://doi.org/10.52821/2224-5561-2021-3-89-109>



WHY OUR MINDS WANDER: THE HIDDEN SCIENCE BEHIND DAYDREAMING

Quang Minh Tran

Introduction

Imagine this: You are sitting in a long math or history lesson. The teacher is explaining the concept, but your eyes wander to the window. In the split second, you are no longer in the classroom. You're thinking about the joke your friend told yesterday, imagining what you would do after school, or even thinking about how you might look in ten years. Most of us have experienced this; our teachers and parents often label this as laziness or a distraction. Yet, science has uncovered a shocking discovery: daydreaming is actually a superpower. When our minds wander away, our brains are doing some of their most important work.

The brain's "screensaver"

In the late 1990s, scientists used brain-imaging technology (such as fMRI) to see what happens to the brain when a person is actively doing something and when resting. They found that when people perform an outward task, specific brain regions deactivate, but during rest, these areas are highly active. It wasn't until 2001 that neurologist Marcus Raichle named this system the "Default Mode Network" or DMN for short. The DMN is associated with organizing memories, processing emotions, imagining scenarios, and generating ideas. This explains why many people experience sudden daydreams while showering, walking, or staring out a window, since these activities are not active tasks. In these moments, the brain is quietly making connections between memories, emotions, and information gathered earlier.

The importance of "Daydreaming"

Daydreaming might feel like a waste of time, but scientists have found that letting your mind wander is beneficial, especially for creativity. When we imagine fictional words, recall past conversations, or wander into the future, we can connect our ideas in unexpected ways. Take the "Aha!" moment as an example: many people have tried to solve a hard puzzle or math problem, and many have given up. Surprisingly, many of those who have given up have found the solution in the shower, while walking, or just by staring at a wall. That's because your DMN was secretly working on the problem in the background. Albert Einstein discovered the theory of Relativity in his adulthood. Thanks to his teenage daydream of riding alongside a beam of light. A 2015 study by Claire Zedelius showed that as she looked at how mind-wandering affected people's performance on a creativity test, where they had to come up with a novel word that fit with three apparently irrelevant words. She found that people who daydreamed performed better on this task, with the answer coming to them faster than through general problem-solving.

The consequences of mind wandering.

However, not all forms of daydreaming are beneficial. Maladaptive daydreaming occurs when people spend excessive time lost in their imagination. It is used as a coping mechanism for depression or anxiety, but it can lead to several negative consequences. Firstly, prolonged immersion in fantasy for hours can disrupt social interactions, as individuals neglect real-life relationships with friends and family. This can stunt the development of vital interpersonal skills. Secondly, excessive daydreaming can lead to a loss of focus, resulting in career or academic failure. In addition, it can reduce their attention span and lead to procrastination, making it difficult to complete tasks and study. Lastly, maladaptive daydreaming can cause feelings of shame and guilt when individuals recognise they waste precious time on something pointless rather than engaging in productive activities. However, overcoming maladaptive dreaming can be challenging, since research shows that the need to daydream may be similar to an addiction like smoking or alcohol. Which means when they want to get rid of this condition, it may be difficult to get rid of completely because of its similarities to an addiction, so when people miss the opportunity to daydream, they might feel upset or uncomfortable.



WHY OUR MINDS WANDER: THE HIDDEN SCIENCE BEHIND DAYDREAMING

Quang Minh Tran

The effects of daydreaming in education

In education, creativity is as important as learning and memorising, since daydreaming helps boost creativity and memorising, and it plays an important role in education. Subjects such as science, engineering, art, and writing all require imagination and flexible thinking. A student who occasionally allows their mind to wander may develop more creative ideas in brainstorming and problem-solving than someone who focuses only on memorisation. A recent study from Eötvös Loránd University in Hungary has found that allowing your mind to wander while engaged in a simple task may actually improve learning. Other researchers also found that mind-wandering can help with memory consolidation. They claimed that if your mind drifts during a long lesson, your brain enters a rest-like state. This causes the Default Mode Network to organise and replay the recent lesson, then transfer it from short-term to long-term memory. However, daydreaming has some disadvantages in the academic environment. Daydreaming during lessons can reduce concentration and understanding. For example, if the teacher explains a hard math equation or gives the dates of the next exam while your brain wanders away, you're going to have a hard time. This can cause students to miss the lesson or forget important points the teacher covered, which can take a toll on their academic performance.

In conclusion

Daydreaming should not be considered solely as laziness or a distraction. The brain is doing this just to create new ideas, secretly solving a problem, or helping you memorise the lesson. While it may be a distraction or a waste of time, daydreaming may strengthen creativity and problem-solving abilities, especially in education.

After all, humanity's greatest ideas, like the theory of Relativity by Albert Einstein, appeared in moments when the mind wanders. So, the next time you catch yourself daydreaming, don't feel guilty! Just make sure to burst your bubble when the teacher announces the next exam date.

Bibliography:

- <https://pmc.ncbi.nlm.nih.gov/articles/PMC10524518/>
- https://en.wikipedia.org/wiki/Default_mode_network
- https://greatergood.berkeley.edu/article/item/what_daydreaming_does_to_your_mind
- <https://my.clevelandclinic.org/health/diseases/23336-maladaptive-daydreaming>
- https://greatergood.berkeley.edu/article/item/does_daydreaming_have_a_dark_side
- <https://www.medicalnewstoday.com/articles/letting-your-mind-wander-could-help-you-learn>
- <https://www.medicalnewstoday.com/articles/daydreaming-may-boost-brain-plasticity-memory-consolidation>



QUANTUM SUPERPOSITION AND ANEKANTAVADA: IS REALITY INHERENTLY MULTIFACETED?

Daksh Jain

In 1927, the greatest physicists in the world gathered in Brussels for the Solvay Conference. Einstein, Bohr, Heisenberg, and Schrodinger all walked out more confused about reality than when they arrived. The conclusion they kept circling back to was disconcerting. At the subatomic level, things do not have definite properties until you look at them. They exist in multiple states at the same time, seeming non-singular.

A Jain philosopher from 500 BCE would not have been surprised in the slightest.

Long before particle accelerators and quantum labs existed, Jain scholars and philosophers in ancient India, almost 2500 years ago, had already arrived at this unsettling conclusion: reality is not singular. It cannot be captured from one angle, expressed in one sentence, or reduced to one truth. They called this Anekantavada, also known as the doctrine of many-sidedness. They argued that no single viewpoint can fully capture reality. For centuries, this was considered the philosophy. But today, it reads increasingly like physics.

Building our Binary World

Every calculation your laptop has performed traces back to a heartbeat. A switch flipping between 0 and 1. In classical computing, a bit can only ever occupy one state at a time. Western philosophy was built this same way. Aristotle's Law of Non-Contradiction held that a thing cannot at the same time be and not be. True or false. Here or there.

Quantum mechanics does not merely complicate this picture. It dismantles it.

Both at once?

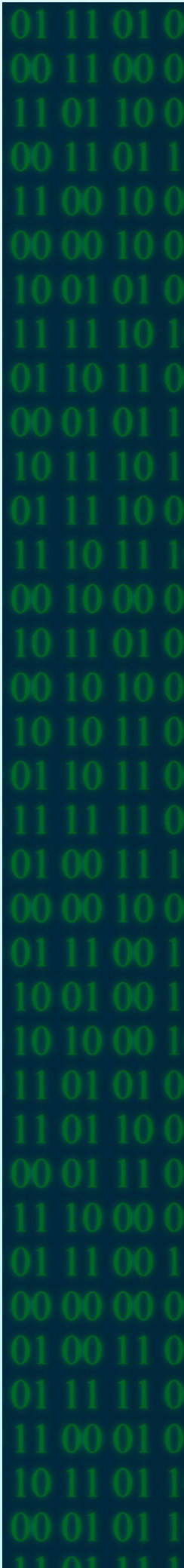
A qubit, also known as the quantum equivalent of a classical bit, exists in a superposition of both 0 and 1 simultaneously. It does not alternate rapidly between the two states; it is the genuine blend of both, held in suspension, until measurement forces a resolution. Schrödinger's cat captures this: a cat sealed in a box is simultaneously dead and alive until someone were to open the lid. The point isn't in the feline metaphor, but in the underlying behaviour of quantum systems.

Two qubits can hold four combinations of 0's and 1's simultaneously. Each additional qubit doubles that number, producing an exponential increase in computational power. Quantum computers do not solve problems by testing one answer at a time. They inhabit all possible answers at once and then narrow them down. Think of it like Google Maps checking every possible route at the same time, rather than one at a time.

The philosophy that got there first

Here is where history becomes strange. Jain philosophers, as early as the 5th century CE, developed *Syadvada*, the doctrine of conditional predication, which is represented by the prefix *syat*, meaning "in some respects" or "perhaps" to any proposition, yielding seven distinct truth values instead of the normal two.

Those seven values known as Saptabhengi cover every logical possibility a claim about reality could take. A thing exists; It does not exist; It exists and does not exist; It is indeterminable; its existence is indeterminable; Its non-existence is indeterminable; and both its existence and non-existence are simultaneously indeterminable.



QUANTUM SUPERPOSITION AND ANEKANTAVADA: IS REALITY INHERENTLY MULTIFACETED?

Daksh Jain

Comparing those seven categories against what a qubit does for measurement reveals parallels. It is in a state of 0. It is in a state of 1. It is both. It is indeterminate. Jain scholars had no particle accelerators. They arrived at this explanation through pure logic and observation alone.

Scholars have drawn direct comparisons between Anekantvada and Bohr's principle of complementarity, finding that a particle cannot simultaneously reveal its wave nature and its particle nature. Which property you observe depends entirely on how you look. The two are fundamentally incompatible, as the more precisely you determine a particle's path, the less interference you are to observe, and vice versa. This is not a limitation of instruments. It is the structure of our reality. The syat prefix in every Jain assertion captures that same insight. How no single observation, however precise, delivers the complete picture. This convergence is not just a philosophical speculation; physicists have examined it directly.

Importance?

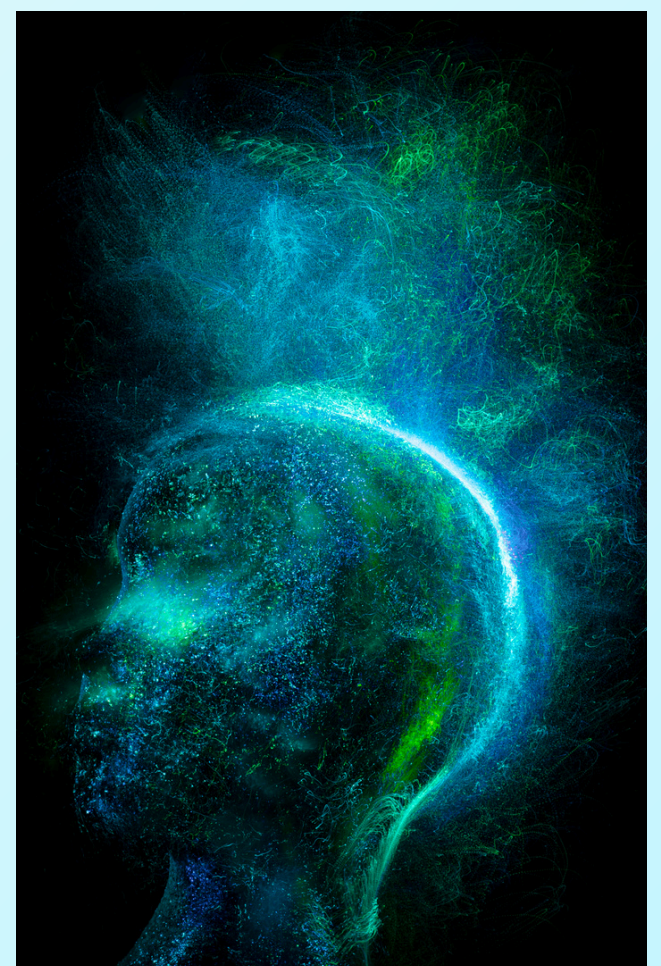
The reason this matters beyond philosophy is that engineers are building the world's most powerful computers on exactly this principle. Quantum algorithms use superposition to compute across all combinations of states at once, also known as quantum parallelism. And that gap in capability over classical computing is enormous. Drug discovery, climate simulation, and breaking encryption: these are problems that would outlast the age of the universe with a classical machine. Quantum handles them because the computer never has to pick one answer at a time. It thinks in "both/and." Classical computers only know "either/or."

Jain philosophers did not build any processors. But they built a logical framework that said ambiguity is not a bug, but rather the point. That is precisely what quantum computing runs on.

Responsibility?:

Every major scientific leap has arrived with a problem of responsibility attached. Nuclear physics gave us power stations and atomic bombs from the same discovery. AI gave us cancer diagnostics and deepfakes from the same codebase. Quantum computing is next in that line, and the weight of that is already gathering.

Jainism has always held that Anekantavada is ethical before it is intellectual. Non-violence and non-possessiveness are not ancillary doctrines; rather, they are inherently integrated into the framework. If no single perspective captures the whole truth, then humility is already built into the logic. It is not a choice. That is the part that modern science currently struggles with. We are building elaborate machines sophisticated enough to hold contradictions in their very own architecture. The question is actually whether the people themselves can do the same.

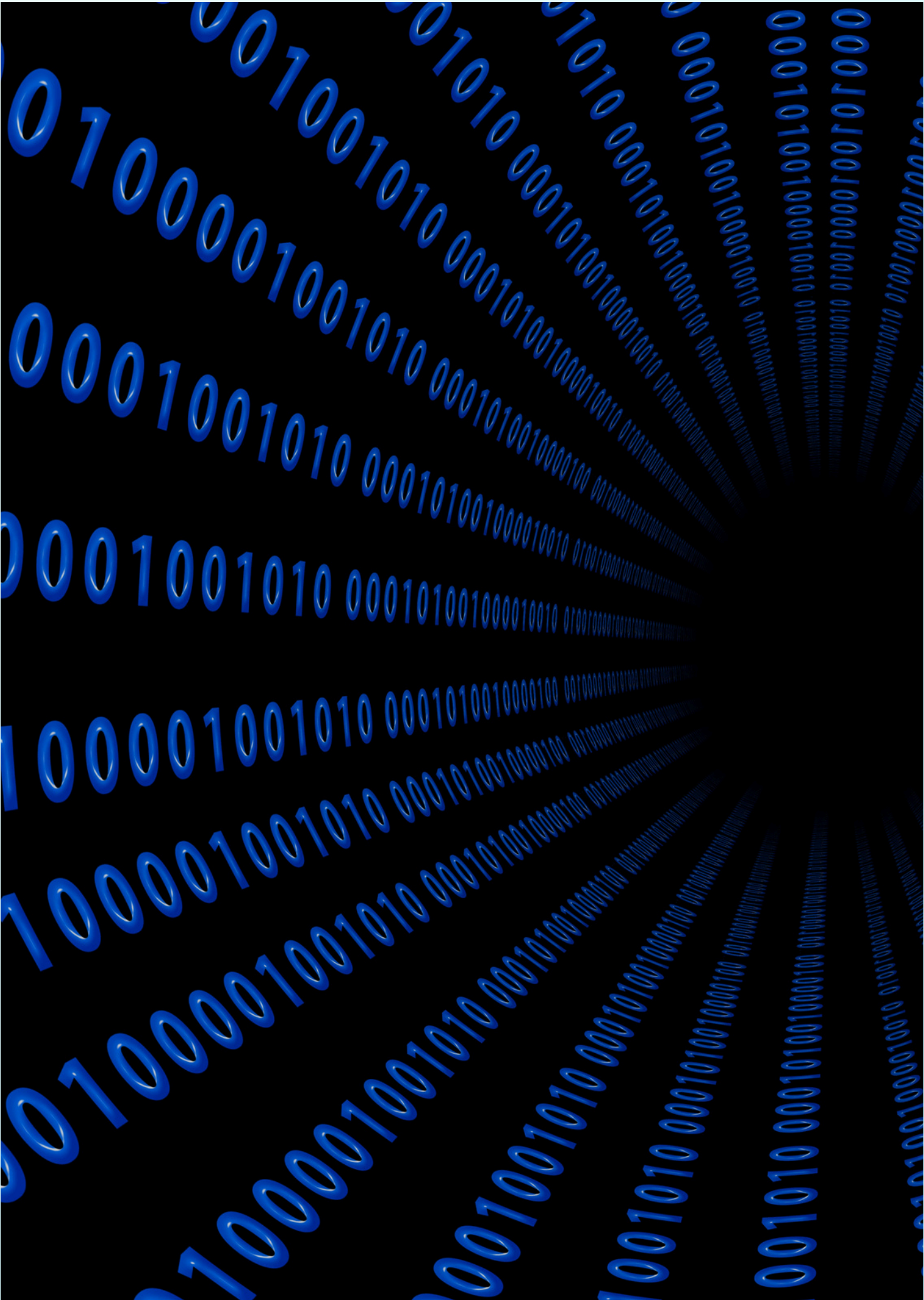


QUANTUM SUPERPOSITION AND ANEKANTAVADA: IS REALITY INHERENTLY MULTIFACETED?

Daksh Jain

Bibliography:

- <https://fiveable.me/indian-philosophy/unit-10/ane-kantavada-syadvada-jain-theories-knowledge/study-guide/keW14148KhNrfw06>
- <https://www.spinquant.com/news-detail/what-is-quantum-superposition-and-how-it-powers-quantum-computing>
- Susskind, L., & Friedman, A. (2014). Quantum Mechanics: The Theoretical Minimum. Basic Books.
- <https://www.nist.gov/quantum-information-science/quantum-computing-explained>
- <https://philosophy.institute/indian-philosophy/jainism-relativistic-pluralism-approach/>
- <https://jainworld.com/philosophy/science-and-jainism/ane-kantavad/quantum-mechanics/>
- <https://jainworld.com/philosophy/science-and-jainism/ane-kantavad/>
- https://jaingpt.org/knowledge/jainism_eternal_and_universal_path_for_enlightenment_007635_007635
- <https://quantumzeitgeist.com/superposition-in-quantum-computing/>



THE EVOLUTION AND IMPLEMENTATION OF MERITOCRATIC SYSTEMS

Hu Suri Trinh

In 1958, a rather crucial term, meritocracy, was coined by Michael Young in his book 'The Rise of Meritocracy'. Ever since then, meritocracy has been an increasingly popular concept in modern society, with the main goal of people succeeding on their own merits, or in other words, gaining more opportunities to rise regardless of their background.

Since the 1960s, meritocracy has been popularised largely due to the enormous difference between an equalised system and the traditional world of feudalism. The implementation of meritocratic systems was widespread: free education, policies and practices to reduce nepotism (i.e. favouritism towards the wealthy and elite), and global action such as positive discrimination or affirmative action to support disadvantaged groups.

All of these developments contributed to a broader goal: changing the perception that success was achieved only by being born into privilege, and instead promoting the idea that hard work, talent, and effort could determine a person's future. Meritocracy changed society away from inherited status towards achievement-based opportunities.

What is meritocracy?

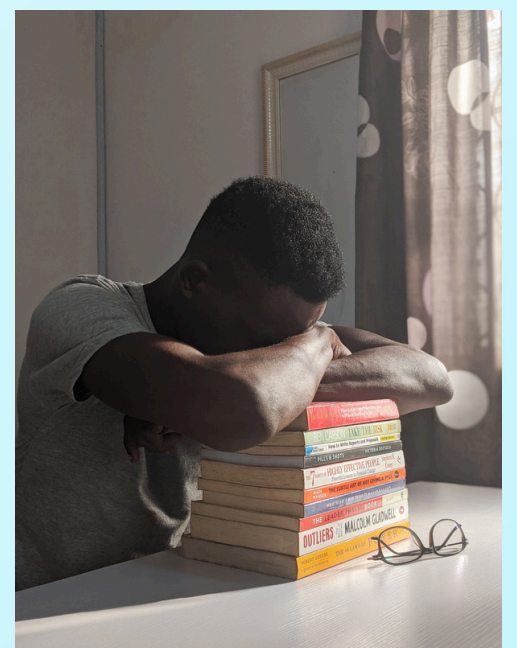
Meritocracy refers to ideas such as fair competition, individual responsibility, and equal opportunity. This means that everyone should be able to take part in the same exams, job applications, or selection processes, and that these should be evaluated using transparent and objective criteria. As such, people are largely responsible for their own success or failure: if they work hard and develop their talents, they should be rewarded. At least in theory, everyone begins with the same chance to succeed, regardless of gender, race, or socioeconomic status.

Meritocratic systems often rely on things such as standardised tests, performance reviews, or academic rankings to identify those who are considered the most capable. Within the educational system, these are designed to admit students who demonstrate the highest academic potential, while promotion systems in workplaces may be built around measurable outcomes like sales figures, productivity, or leadership performance.

Note that meritocracy is not simply a description of how society works; it is also an ideal that many governments and institutions claim to pursue. Policies such as scholarships for disadvantaged students, open recruitment rather than hiring through personal connections, and clear promotion criteria are all attempts to make society more meritocratic.

Why society values meritocracy

Meritocracy appears to be fairer than older systems such as feudalism or rigid class hierarchies. In a feudal society, a person's future was largely determined at birth: nobles remained powerful while peasants had almost no chance to improve their social position. Meritocracy works on the claim that individuals can rise through talent and hard work. Social mobility is attractive, especially in democratic societies that mainly focus on equality and individual rights.



THE EVOLUTION AND IMPLEMENTATION OF MERITOCRATIC SYSTEMS

Hu Suri Trinh

Also, meritocracy is an effective way to use human resources efficiently. When positions are filled based on competence rather than family name, gender, or wealth, institutions are more likely to select the people who can perform best. For example, hiring the most qualified candidate rather than the owner's relative should lead to a more productive company in theory. Looking through a larger lens, when a country encourages the education and advancement of talented people from all backgrounds, it can benefit from a wider pool of skills and innovation.

Meritocracy supports powerful cultural narratives about hard work and self-improvement, changing societal perceptions. Many people want to believe that their efforts matter, that they can change their lives through perseverance, and that success is not predetermined. Governments, schools, and media often reinforce this message by celebrating "self-made" individuals who are said to have risen from humble origins to positions of influence (i.e. success stories). These stories strengthen public faith in the system and can motivate individuals to invest in their own education and career development.

If you look at the bigger picture, meritocracies justify existing inequalities in a way that feels acceptable to many. If people believe that the system is meritocratic, then they may also believe that those at the top deserve their advantages because they have worked harder or are more talented. This does not mean that society is truly fair, but it explains why the idea of meritocracy remains popular and influential in public debates about education, employment, and social policy.

The meritocratic system can help uncover talent from unexpected places. When barriers related to class, gender, race, or geography are reduced, individuals who might otherwise have been overlooked can gain access to opportunities. This not only benefits those individuals but also enriches society by bringing in diverse perspectives, creative ideas, and new forms of expertise.

The flaws of meritocracy

Meritocracy often assumes a level playing field that does not exist in reality. Children from wealthy families usually have access to better schools, private tutoring, stable home environments, and influential networks. As a result, they may perform better on exams and in interviews, not simply because they are more talented, but because they have received more support. This means that "merit" can be heavily shaped by privilege.

Another problem is that meritocratic systems can become obsessed with narrow forms of measurement. Standardised tests, rankings, and performance indicators reduce complex human abilities to numbers and scores. Qualities such as creativity, empathy, resilience, or moral character can be difficult to measure and may be undervalued. People who do not fit the standard criteria may be unfairly excluded, even if they could contribute greatly in different ways.

Meritocracy can also create intense pressure and anxiety. If individuals are told that their success or failure depends entirely on their own efforts, they may blame themselves harshly for any setback, ignoring structural barriers such as discrimination, poverty, or unequal access to resources. This leads to feelings of failure, stress, and burnout, especially among students and workers in highly competitive environments.



THE EVOLUTION AND IMPLEMENTATION OF MERITOCRATIC SYSTEMS

Hu Suri Trinh

The relevance of meritocracy to the current system

Meritocracy remains highly relevant to today's social, economic, and political systems. Many countries organise their school admissions, university entrance, and civil service recruitment around merit-based exams and qualifications. Employers frequently claim to use objective criteria such as CVs, test scores, and performance reviews to select the "best" candidates. Political leaders also often present their societies as meritocratic to gain legitimacy and public trust.

In real life, meritocracy appears in many different forms. To simplify, let's look at university admissions. Competitive universities often rely on exam scores, school grades, personal statements, and interviews to select students. This process aims to reward academic ability and effort. However, students who can afford private tutors, test preparation courses, or international school fees may have a significant advantage over those who cannot, even if both groups are equally hardworking.

At the same time, problems publicly criticised, such as inequality, discrimination, and social mobility, show that the reality is more complicated. Rising gaps between rich and poor, the high cost of education, and persistent biases based on gender, race, or immigration status all challenge the idea that everyone truly has an equal chance. Critics argue that many current systems are only partially meritocratic and that they still reproduce old hierarchies under a new language of "talent" and "achievement".

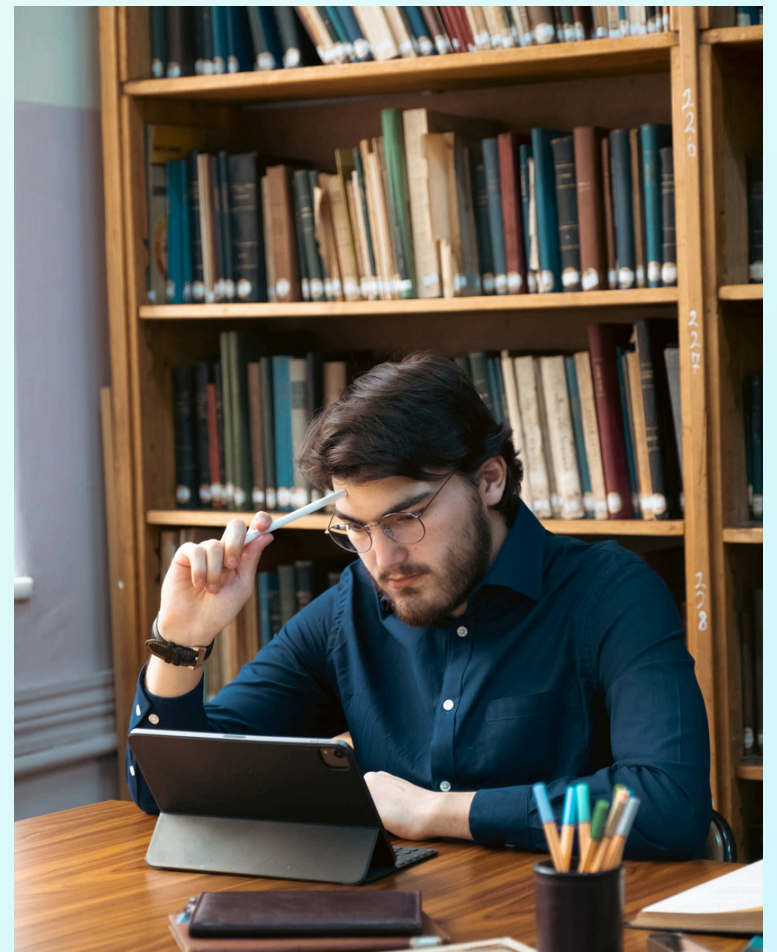
Because of these tensions, meritocracy is both a guiding ideal and a standard against which existing institutions are judged. Governments introduce reforms such as widening participation in higher education, diversity quotas, and need-based scholarships to make their systems appear more meritocratic.

Conclusion

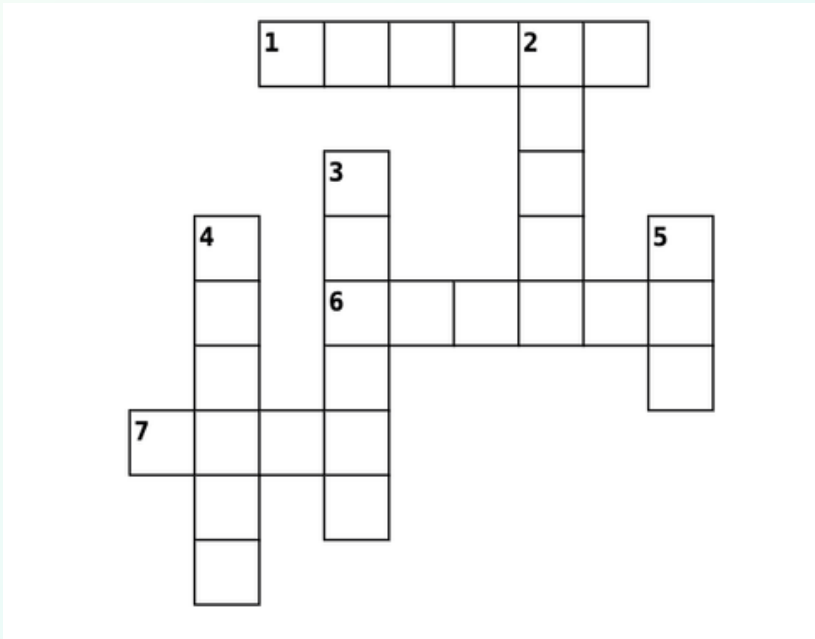
At the end of the day, meritocracy exists on a sliding scale, and as such, meritocracy should be properly performed by governments and institutions. If it is not properly applied, it can lead to more unfairness for those with worse backgrounds, possibly contradicting the system's goals.

Bibliography:

- <https://doi.org/10.1037/a0024618>
- <https://doi.org/10.1002/9781118785317.weom020075>
- Michael Young, The rise of the Meritocracy, 1958
- Liu, A. Unraveling the myth of meritocracy within the context of US higher education. High Educ 62, 383-397 (2011).
<https://doi.org/10.1007/s10734-010-9394-7>



Crossword: Rainbow



- Across
- Down
1. A deep, dark blue-purple color, like the sky at dusk.

2. The color of fresh grass or a leafy tree.

3. A light purple color, often associated with a sweet-smelling flower.

6. The color of a pumpkin or the fruit of the same name.

7. The color of a clear sky on a sunny day.
4. The color of the bright sun or a ripe banana.

5. The color of a ripe strawberry or a stop sign.

Word Search: Anti-Slavery Figures

Crypto-Quote: Stand Firm

E	E	G	S	S	R	C	T	T	I	H	I	U	Y
R	A	S	R	T	H	T	Q	I	I	D	H	J	G
F	Q	D	J	A	O	G	R	J	M	O	T	T	Q
I	S	X	C	U	N	W	L	U	Y	T	H	K	B
M	U	F	K	F	Y	G	E	D	T	B	A	J	A
H	M	D	J	G	A	C	E	Y	X	H	M	Z	W
D	N	N	G	A	K	L	C	R	Q	E	X	T	K
O	E	Z	T	R	W	Y	L	B	R	O	W	N	D
U	R	N	A	R	Y	B	I	Z	H	C	P	N	U
G	X	W	L	I	E	F	N	W	Y	F	G	G	A
L	X	K	Y	S	E	F	C	P	R	B	C	G	N
A	I	A	H	O	B	P	O	T	U	B	M	A	N
S	P	V	L	N	Q	L	L	D	H	Y	Y	J	V
S	Z	N	J	U	R	A	N	T	Z	F	Q	A	H

Word Bank:

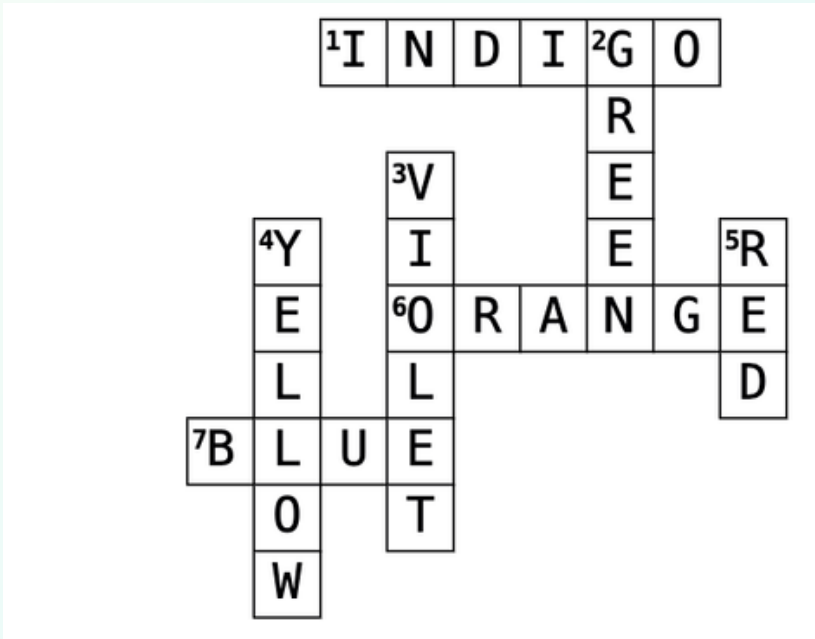
- Lincoln
- Brown
- Douglass
- Stowe
- Tubman
- Sumner
- Granger
- Mott
- Garrison
- Truth

XA OQNA UKQ LQP UKQN BAAP
EJ PDA NECDP LHWYA, PDAJ
OPWJZ BENI - WXNWDWI
HEJYKHJ

Instructions:

Figure out the quote from one of these articles by figuring out a simple code. In this code one letter will replace another, (it will be the same letter throughout the puzzle). Example: KLFRFLP = SYNONYM. Solution is found through trial and error.

Crossword: Rainbow



Across

- 1. A deep, dark blue-purple color, like the sky at dusk.
- 6. The color of a pumpkin or the fruit of the same name.
- 7. The color of a clear sky on a sunny day.

Down

- 2. The color of fresh grass or a leafy tree.
- 3. A light purple color, often associated with a sweet-smelling flower.
- 4. The color of the bright sun or a ripe banana.
- 5. The color of a ripe strawberry or a stop sign.

Word Search: Anti-Slavery Figures

Crypto-Quote: Stand Firm



BE SURE YOU PUT YOUR FEET
IN THE RIGHT PLACE, THEN
STAND FIRM - ABRAHAM
LINCOLN

Word Bank:

- Lincoln
- Brown
- Douglass
- Stowe
- Tubman
- Sumner
- Granger
- Mott
- Garrison
- Truth

Instructions:

Figure out the quote from one of these articles by figuring out a simple code. In this code one letter will replace another, (it will be the same letter throughout the puzzle). Example: KLFRFLP = SYNONYM. Solution is found through trial and error.