

IMPACT

INNOVATIVE MANAGEMENT PRACTICES
AND CREATIVE THINKING

A JOURNAL FOR MANAGEMENT PROFESSIONALS

how to
accept
CHANGE IN LIFE
AND EMBRACE
IT POSITIVELY



Greetings from **IMPACT**



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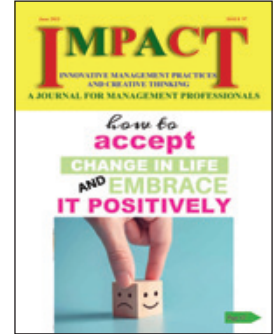
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Dear Readers,

India is experiencing the brunt of Global Warming. Unseasonal climatic changes. Heat wave. For the first time Himalayas having snow fall during the month of May!

Environmental Scientists are shouting at their top of their voice to protect from global Warming. Politicians, Industrialists also talk, talk and talk in many forums cautioning about global warming but taking not even baby steps to protect the environment.

Global warming affects not only the environment but also the entire ecosystem, affecting all species including the flora and fauna.

Average citizen try to manage his own finances and not bothered about mother earth. Politicians, Celebrities and Industrialists give lofty talks in popular media and forums and are happy with the round of applause from the gathering.

Who really cares?

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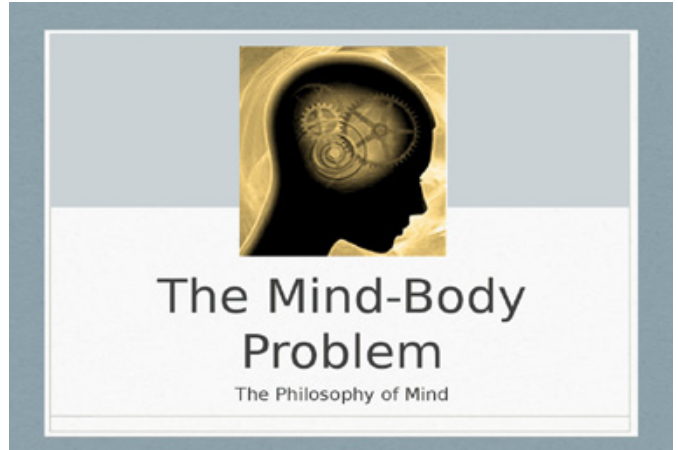
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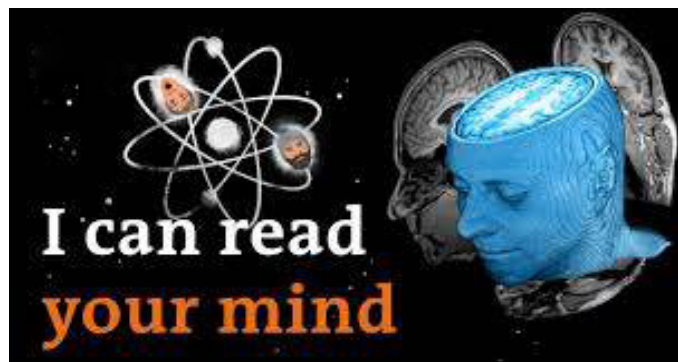
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How Poet Kamban In His Ramayanam Deals With The Conflict Of Loyalty Between Kumbhakarna and Vibheeshana

Kumbhakarna and Vibheeshana are the two younger brothers

of Ravana. Both of them expressed their strong disapproval to the latter, of his (Ravana's) rash and dastardly act of keeping Seeta incarcerated. When Ravana rebuked his brothers, Vibheeshana left in a huff and sought Shri Rama's refuge because of the loyalty to his principles. However, Kumbhakarna, even though he disapproved Ravana's crime, stuck to him and gave up his life for the sake of his brotherly loyalty.



FROM TODAY WE SHOULD STOP MAKING FUN OF KUMBHAKARNA



EVEN AFTER KNOWING THAT RAM IS GOD, HE STILL GAVE HIS SACRIFICE ONLY FOR HIS BROTHER RAVAN 🙏

Poet Kamban describes in his inimitable style, the conflict between 'loyalty to one's principles' and 'loyalty to one's brother', in the Yuddha Kandam, when Kumbhakarna met Vibheeshana face to face, in the battlefield. "Kumbhakarna lifted the golden shoulders of sorrowful Vibheeshana and embraced him. Shedding torrential, blood-like tears, Kumbhakarna told Vibheeshana, 'My handsome son! My brother, Ravana, looked after me exceedingly well all these days, and has now sent me to fight. For the sake of Ravana, I will lay down my life. I will not go to Rama for a life which is as ephemeral as a picture drawn on water. If you want to relieve me of my agony, return fast to that graceful Rama. Because of the flawless boon granted to you by Lord Brahma, you sought

RAVANA BROTHER RAMA BHAKTHA VIBHISHANA



imperishable dharma, and you will live as long as the world lasts. It befits you to be with Rama. For me, dying 'discreditably' here will only bring fame. If a thoughtless leader intends doing something wrong, it is good to prevent it and correct him. If this is impossible, what purpose is served in joining the enemy? It is the duty of one who has been fed by his leader, to fight on his behalf and lay down his life even before his leader's death. My elder brother, Ravana who ruled the three worlds, is going to die by the scorching arrows of Rama. Should my brother (Ravana) fall on the earth and die in the midst of his withering army and relatives without me by his side?.

'Great Vibheeshana, you command the regard of everyone! If you respect my words, go without delay. Seek the friendship of Rama and Lakshmana. Do not think you can change my mind with any more persuasion. With Rana's sanction, and as per the Vedas, perform the last rites of those Rakshasas killed in action and save all of them from the agony of hell. O eternal one, what is bound to be destroyed will

certainly be destroyed at the appointed time. Who is there who knows this truth better than you ? Please leave this place without any remorse for me'. Kumbhakarna lifted Vibheeshana again, embraced him and shed torrential tears. He gazed at his brother for a long while, and then said 'Our relationship as brothers ceases from today', and released him", concluded Poet Kambar.

(Quoted from Dr. H.V. Hande's English translation of Kamba Ramayanam)

Dr. H.V. Hande

*Former Health Minister of
Government of Tamilnadu.
Founder & Director of
Hande Hospital.*

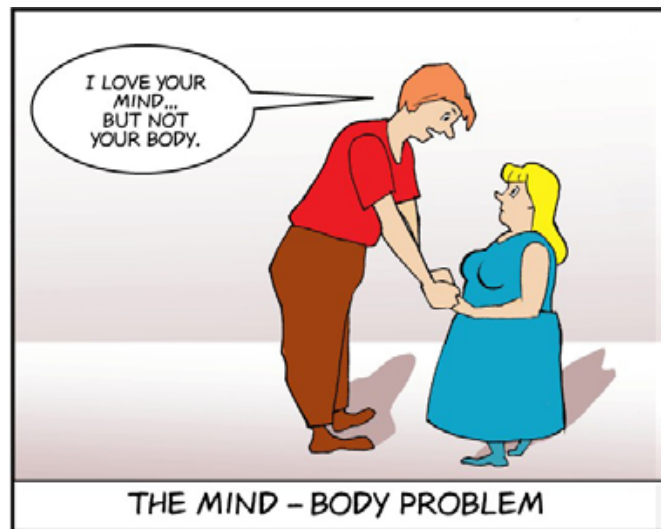
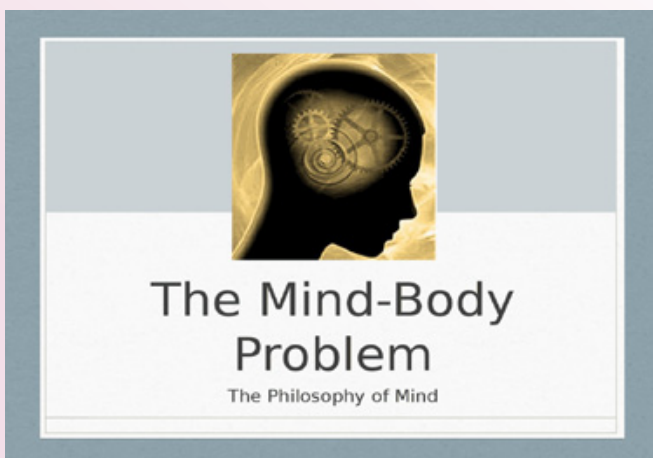


6 fascinating solutions to the ever-baffling “mind-body problem”

One of the toughest and most discussed problems in philosophy concerns how the mind and body interact. The mind-body problem has been a staple of modern philosophy since Descartes. Although the problem has yet to be solved, we currently have a better idea of how difficult it is.

How does the mind interact with the body? Nobody really knows — but these philosophers ventured an answer.

One of the enduring problems in philosophy is determining how the world works from our subjective point of view. The “mind-body problem” — how mind and body interact and what they are composed of — takes us to the heart of the matter.



While many resolutions have been suggested, some are less satisfactory than others. It is a difficult problem — how can mind and body appear simultaneously different and connected? Morrissey expressed our bafflement thus: “Does the body rule the mind? Or does the mind rule the body? I dunno.”

Here, we outsource the problem to a roster of noted philosophers and explore how each of them took up the challenge where others left off.

René Descartes

A French philosopher and mathematician working during the 17th Century, Descartes is



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The Mind Body Problem

Our minds seem to be non-physical and different from our bodies. Our bodies seem to be something different from our minds. Are they actually different? What is a mind? What is a body? **How do they relate?**

1. Dualism – we are souls that inhabit bodies.
2. Physicalism (materialism) – We are simply our brains. Mind = Brain.

acknowledged as the father of modern philosophy. He is most famous for his work *Meditations on First Philosophy*.

In it, he sets out to discover what he can know for certain. His campaign of radical doubt famously leaves him with the knowledge that something is doing the doubting. This leads to the famous conclusion, “I think, therefore, I am.”

In his later works, he more definitely separates our minds from the world around us, treating mind and body as two separate substances which exist in fundamentally different ways and do different things. This idea is known as Cartesian Dualism. Dualism generally holds that physics does not explain at least some truths about consciousness because something non-physical is involved.

THE MIND-BODY DEBATE

- Is our mind made of matter?
- Is it made of a different substance?
- What differentiates the mental from the non-mental?
- How do our mind and our body relate?
- Is our mind inside our body?
- Is our mind born with the body?
- Will it die with the body?
- Does it grow with the body?
- What is the relationship between the mental and the neural?
- How does the mental originate from the neural?
- What is in the mind?

To address the problem of how mind and body interact, Descartes posited that the pineal gland, a small part of the brain that makes melatonin, was the “seat of the soul” and allowed the two substances to engage. If this is the case, then “You” are a mind — the thing that thinks — with a body you interact with through a small part of the brain.

Of course, Descartes wasn’t the first person to consider the mind-body problem. The Buddha argued that the mind and body were separate but interdependent things in 500 BCE. Plato treated the soul as separate from the body it was trapped in. Aristotle argued that the mind was a function of the body. However, Descartes’ approach to the issue did reignite debate on the topic.

Nicolas Malebranche

A philosopher and Catholic priest, Malebranche (1638-1715) advanced Descartes’ work and tried to solve the mind-body problem from a distinctly Christian point of view.

He agreed with Descartes that mind and body were two separate substances and couldn’t interact freely because of their fundamental differences. However, he rejected the pineal gland argument.

His solution was that God, as a transcendent being, could interact with both. This means that when you try to do something, like tell your leg to move forward, it doesn’t directly affect the body but rather provides God a chance to move your leg for you. God often obliges. This stance is known as “occasionalism,” as the will provides an “occasion” for God to step in. Malebranche goes further than others holding this position, arguing that God is the only cause of any changes we see in the world.

The implications of this view are fairly clear — your mind can’t make your body do anything that God doesn’t approve of. “You” are still a mind, but



rather than interacting with the body, you're merely willing and watching as something else steps in to cause your will to become action.

While this view has never been extremely popular, it isn't the strangest or most divinely focused idea on this list. Our next thinker leaned further into the idea that God was always involved in our interactions.

George Berkeley

Like Malebranche, Berkeley — the Bishop of Cloyne — was a philosophical member of the clergy. He worked in 18th-century Britain, Ireland, and Rhode Island.

The Bishop introduced a theory now known as Subjective Idealism. This solves the problem of how the mind interacts with the world by arguing that materials don't really exist. After all, you can't have a mind-body problem if minds are all that exist. There is only the mind and the ideas the world is made of. He famously held that "to be is to be perceived." That's where the "subjective" part comes in: Individual perception is key here.

If this is true, your body does not exist in a material fashion. This doesn't mean that everyday objects aren't real, just that they are a combination of sensory ideas. These exist because they are being perceived. The reason things you aren't looking at continue to exist is because God keeps an eye on everything.

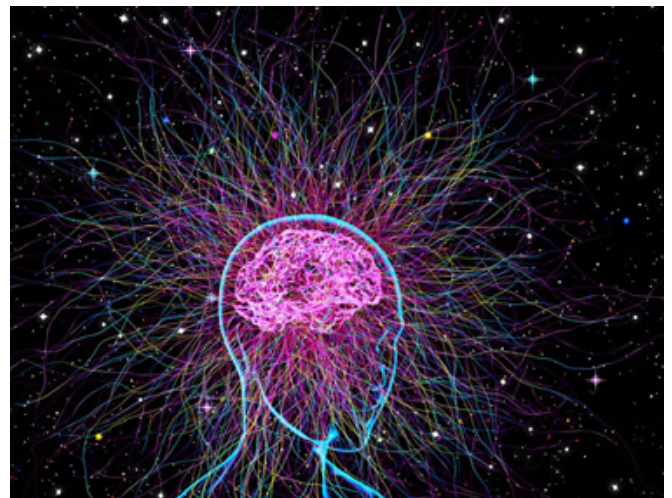
As you might imagine, the idea that everything is an idea has been controversial. When Dr. Samuel Johnson was told of Subjective Idealism, he famously kicked a stone, saying, "I refute it thus." But, of course, that doesn't prove the stone isn't made of ideas — just that you can kick it.

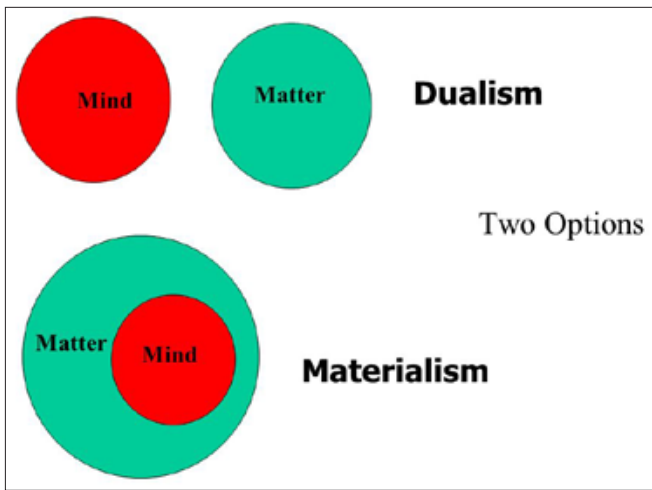
Our next thinker would bring back the idea of material substance. However, his ideas were so radical that he was excommunicated over them.

Baruch Spinoza

Baruch Spinoza (also known as Benedictus de Spinoza) was a Portuguese-Jewish philosopher working in the Netherlands during the 17th Century. Excommunicated from the Jewish faith for his radical beliefs, he is remembered principally for his book *Ethics*, which provides a straightforward solution to many metaphysical and ethical problems.

He argues that there is only one substance, which is both matter and mind. This removes the problem





of how they would interact and introduces the idea that everything — including the device you are reading this on — has some element of mind in it. He goes further, however, and posits that this substance is either embedded with the divine or is God. This God is not the traditional old man outside of time that Abrahamic faiths look to, but one Spinoza identifies with nature or the physical laws of the cosmos.

The implications of Spinoza’s philosophy have been widely discussed. If he’s correct, you have no free will since everything that happens flows along predetermined lines in accordance with the desires of God and physical law. Every aspect of your person shares a divine essence with everything else. He suggests that coming to terms with how the universe works is the path to an ethical and well-lived life.

The MIND-BODY Problem

- The context for much of the discussion had historically been the so-called mind-body problem.
- *How does the mind operate on matter and matter on mind?*
- Answers to this have been as much the province of theology as philosophy.

Spinoza inspired many later philosophers, but his ideas were never popular. However, his proposition that everything has an element of the divine, known as Pantheism, has always enjoyed some support. Albert Einstein claimed to believe in “No God but Spinoza’s.”

Of course, our understanding of the world has progressed over the last few centuries, giving our last two thinkers a chance to ponder the mind-body problem in the context of modern science.

Thomas Nagel

Professor of Philosophy and Law Emeritus at New York University, Nagel earned his doctorate at Harvard under the supervision of John Rawls. Popular audiences know him for his essay on the philosophy of mind, “What is it Like to Be a Bat?”

If you’ve already come to the conclusion that the mind-body problem is rather difficult, you’re not alone. Dr. Nagel has argued it is so complex that a full understanding of consciousness through physics is, as yet, impossible.

In his paper, he says that the subjective nature of consciousness means objective or reductionist methods may continue to come up short of giving a satisfactory explanation. He uses the example of trying to understand the use of echolocation by a bat to illustrate this — without having the full mindset and experiences of a bat, we can’t really understand “what it is to be” a bat.

Importantly, Nagel notes that we might eventually make a scientific discovery that addresses this issue. He simply holds that we don’t have one right now. Philosopher Colin McGinn takes the idea further. He maintains that neither science nor philosophy will ever really figure out consciousness.

If Nagel is correct, we can conclude that minds are complex and that we won’t solve this problem anytime soon. Our last thinker accepts these



The Mind/Body Problem

- ❑ How are the mind and body related?
- ❑ How can mental events cause physical events?
- ❑ How can physical events cause mental events?
- ❑ Is the mind a computer program? Could a machine think?

problems and uses Nagel's terminology to address them.

David Chalmers

David Chalmers is an Australian philosopher teaching at New York University. His greatest contribution to the philosophy of mind was formulating the "hard problem of consciousness." The problem asks how and why we can have "qualia," defined as "individual instances of subjective, conscious experience."

One possible solution he discusses is panprotopsychism. In this philosophy, fundamental aspects of physical nature have the traits which lay the foundations for consciousness. These foundations are the constituent parts of consciousness that fully arise in certain, more limited cases. Contrast it to panpsychism which says some of the building blocks of nature are conscious or have a mind.

If this is correct, then you have a mind because the various parts of you are made of things with the potential for consciousness. The ability to experience qualia comes from something attached to the

material that makes up your body, even if that ability is poorly understood. It also means that a thermostat could be conscious if it is complex enough.

His proposal doesn't stand alone. It is considered a descendant of Bertrand Russell's Neutral Monism, which holds that there is a single substance that makes up the universe that has the traits needed to support both physical and mental events. It is also tied to the tendency in recent philosophy to ground the mind in physical matter. However, Chalmers has described his stance as being neither materialist nor dualist while still being subject to understanding through natural laws.

Just because Descartes's idea of a "ghost in the machine" has been left behind by most modern thinkers doesn't mean we aren't trying to answer the same questions he raised at the dawn of modern philosophy. We just have a better understanding of exactly how difficult the mind-body problem is.

Author: Scotty Hendricks

Source Courtesy: <https://bigthink.com/>

Each one needs a CAR to live

The readers may wonder when this author has become a Capitalist recommending a car for every person! It is an acronym- Change, Accept and Remove- CAR.

Difficult to return

A poor man went to a King and begged for a little land for agriculture. The King told him to come and meet him next morning early to take the land. The farmer became very happy and appeared before the King the next day. The King asked him to start walking and return whenever he felt that he had enough land and tell the King how much land he had covered and the King

would donate that much land to the farmer, but the only condition was that the farmer should come back any time in the day but the maximum time given was up to the sunset- that meant that if the farmer came back after the sunset he would get nothing.

The poor man was delighted and began walking fast- nay- almost running to cover as much land as possible. Whenever he felt that he had travelled enough land and wanted to return, he saw some area very green at a distance and he thought that he should walk up to that piece of land and cover that also and hence he continued walking. He was going on walking like this and after a long time, he suddenly remembered the condition of the King that he should reach back before the sunset as otherwise he would get nothing. He started running back but the sun was already setting. The farmer ran, ran and ran. He was feeling tired, thirsty and gasping for breath but a lot of distance was there to cover. He began running furiously but fully exasperated, he fell down and could not get up and the SUN SET!

This happens in our lives too. When we go in search of money, name, fame or power, there is no return- it is a ONE WAY ROUTE. We ignore our health, children, family, parents and all and we can never get back those lost moments.

CAR may give you solace

The following formula may be a solution under these trying circumstances-



**"Change The
Changeable, Accept
The Unchangeable,
And Remove
Yourself From The
Unacceptable"**

C- Change what you can change.

A- Accept what you can't change.

R- Remove yourself from the situation which you can neither accept or change. Rise yourself above what you can't change or accept.

Behind each resignation of position, there is CAR.

Behind each divorce, there is CAR.

Even behind every human suicide, there is CAR.

But CAR is to be used for success, not for failure or broken heart or broken marriage.

Whenever you feel broken emotionally, be assured that God is planning to utilize you for something greater, because God always uses broken things beautifully-

Broken clouds bring rain

Broken soil sets as a field

Broken crop yields seeds and

Broken seeds give life to new plants.

You have to be positive and optimistic, since every successful person requires a Wish bone, a Back bone and a Funny bone.

Your year long habits pull you down often whenever you plan something new but NEVER GIVE UP.

Please remember Winston Churchill had speech problems but he never gave up. When he was once asked to deliver an extempore speech to an audience, he went to the dais and spoke the following three words three times and got down to a thunderous applause. What were those three words?

Yes, they were-

NEVER GIVE UP.

Walking is the best exercise, not only physical walking but also

Walk away from Anger

Walk away from Envy

Walk away from Greed and

Walk away from all things that steal your happiness.

R. Venugopal

*Mr. Venugopal has served in
LIC of India from 1968 to 2006
for 38 years and retired as an
Executive Director.*



How much of our behaviour is pre-determined by our underlying biology?

In the subterranean depths of a granite building on the outskirts of Iceland's capital, Reykjavik, a robot is slowly and methodically shuffling the chilled blood of tens of thousands of people from all over the world.

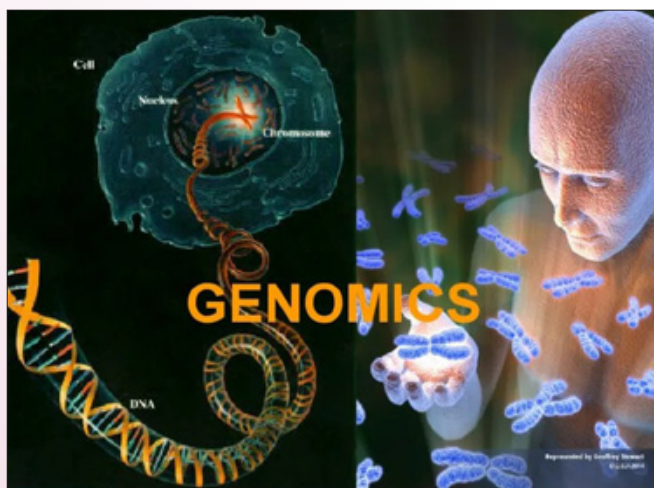
Down in this concrete chamber, a well-honed process is taking place. DNA is extracted from the

samples and then fed into sequencing machines which slowly piece together the unique lines of chemical bases which form the basis of each individual's identity. Later on, artificial intelligence algorithms will connect this genetic code or genome with detailed information held in biobanks about their life – their diet, personality, relationship choices, hobbies, the diseases to which they ultimately succumbed – and search for links which scientists might deem statistically significant.

This particular concrete chamber is owned by an Icelandic company called deCODE genetics, which has sequenced more whole genomes – over 400,000 and counting – than any other institution in the world. Through this process it has made major contributions to understanding our inherited risk of Alzheimer's, schizophrenia, coronary artery disease, various forms of cancer, and many other chronic illnesses.

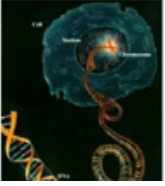
But it has also inspired others to use the same process to delve deep into the human psyche, and find connections between the genome and our personalities, food preferences, and even ability to maintain relationships.

These kinds of studies are starting to touch on something more intimate than simply the search for new medicines, instead revealing new connections



WHAT IS GENOMICS?

- Genomics is the sub discipline of genetics devoted to the
 - mapping,
 - sequencing,
 - and functional analysis of genomes.



What is a genome?

- A **genome** is the full set of genetic information that an organism carries in its DNA.
- The study of any genome starts with the analysis of chromosomes.
- Chromosomes are bundles of DNA and protein found in the nuclei of eukaryotic cells.



Fruit fly chromosomes

between our genetic code and our life choices. For many scientists it has begun to raise the question, to what extent is our behaviour the product of our own volition, and how much is simply pre-determined by our underlying biology?

“When you look at us as a species, we have come into existence on the basis of information that lives in our genome, and then the interaction of that with the environment,” says Kári Stefánsson, an Icelandic scientist who founded deCODE genetics in 1996, with the initial aim of using Iceland’s unique genetic landscape to understand more about common diseases. The country has a small population that has been relatively isolated over the centuries, meaning that there is much less genetic variation than in other nations. This in turn means that there is less background noise to complicate matters, making it easier for scientists to identify meaningful gene variants.

Beyond the Genome

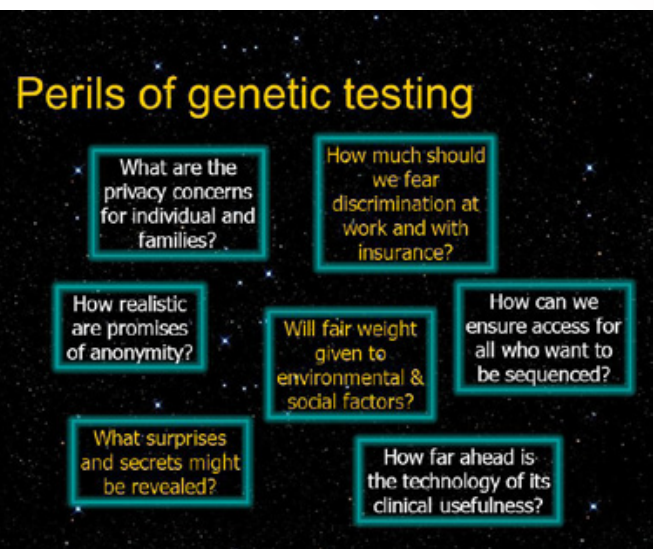
It has been 20 years since the Human Genome Project was “completed”. But it quickly became apparent that the efforts to sequence and map the human “book of life” was only just the beginning. Far from closing the question of what makes our bodies tick and why they do so differently, research on the human genome has revealed a far more complex picture than anyone could have imagined. Beyond the Genome examines the paradigm shift

in our understanding of our genetics in the past two decades, including just how far-reaching the influence of our genes can be and how we in turn can influence our own DNA through health and lifestyle.

Part neurologist, part philosopher, the 73-year-old Stefánsson has become ever more convinced that the complex cocktail of DNA we inherit from our parents, along with around 70 spontaneous genetic mutations which we acquire by chance, subconsciously dictates our behaviour to a far greater extent than we are aware.

We may not realise it, but it appears that many routine aspects of our daily lives might be partially driven by our genome. Subtle genetic tweaks in your taste receptors help to determine whether you prefer drinking coffee or tea. It turns out that coffee lovers are less sensitive to the bitterness of caffeine, while tea aficionados do not perceive other types of bitter chemicals quite so potently.

Genetics also play a role when it comes to our inclinations or aversions for all sorts of different activities. At a simplistic level, it governs both how much you enjoy exercising, and whether you prefer more solitary forms of physical activity such as running, or competing with others as part of team sports. But our DNA can also point us towards more specific leisure-time pursuits.



Genetic Testing Rationale

➤ Predictive

- Am I at risk for a genetic disease?

➤ Diagnostic

- Does my disease have a genetic basis?

➤ Carrier

- Might I pass on a genetic mutation to a potential child?

➤ Prenatal

- What can I learn about the genetic profile of my fetus?



Fifteen years ago, a survey of 2,000 British adults first suggested that there might be such a thing as a hobby gene. Simply looking at a person's family tree and the favoured pastimes of their ancestors suggested a strong inclination towards certain types of activities. Participants in the survey were often surprised to discover that they actually came from a long line of amateur gardeners, stamp collectors, or cake makers.

In the following decade, many people around the world have referred to the study after finding that a parent or grandparent's favoured pastime suddenly held an inexplicable appeal in adulthood. In a Medium blog, Michael Woronko, an insurance worker from Ottawa, Canada wrote, "I had never shown an interest for gardening, even when my mom had dragged me along to her community garden as a child. I couldn't care less about hybrid tomatoes, about germinating peppers, and so forth,

but when the opportunity presented itself (as an adult), something deep down inside of me sprang forward and I ran with it".

Large genomic sequencing studies are now starting to explain why. Stefánsson describes how deCODE's scientists have even found one particular gene variant which determines whether crossword puzzles will appeal to you. "We know that if you have it, you will like to solve crossword puzzles, but it has no impact on whether you're good at them or not," he laughs.

This also holds true when it comes to the complex matter of how our genes dictate the life paths that we follow.

From Boston to Shenzhen, various tech start-ups have spent years searching for so-called talent genes, genetic variants which might confer an

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Genome and Gene

gene is the basic functional unit of **heredity** in a living **organism**. Its nature is the nucleic sequence encoding a polypeptide or protein . Gene determines amino acid sequences of a polypeptide, and also determines the cell-specific traits. rRNA, tRNA, also have their own gene.

genome is the entirety of an organism's hereditary information. It is encoded either in **DNA** or, for **many types of virus**, in **RNA**. The genome includes both the **genes** and the **non-coding sequences** of the DNA of haploid. The human genome contains 24 chromosomes.

innate natural strength or unique language abilities, enabling a person to be directed towards the areas where they have the most to offer.

But doing so is not quite as simple as it might seem. Geneticists at the Max Planck Institute in Leipzig, Germany, have recently tried to draw connections between a gene called ROBO1 which controls grey matter development in a part of the brain involved in number representation, and a child's mathematical abilities. But so far it seems that with all talents, whether that is number crunching, musical ability, or athletic prowess, genetics is just a relatively small part of the equation.

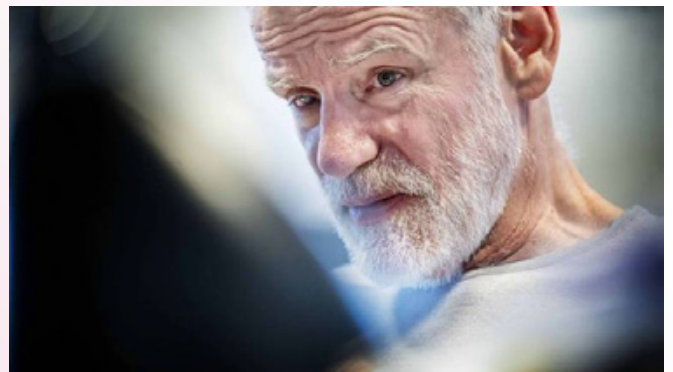
Instead, as Stefánsson found with crosswords, it seems our genes influence our natural inclinations towards doing certain activities. What truly dictates whether we have any aptitude for them are factors such as whether we receive tutoring and other opportunities at an early age, and our own willingness to practice, improve and persist.

The latter points to where genetics might wield its weightiest influence over our life paths - our personality traits. According to Danielle Dick, a

psychiatry professor at Rutgers University in New Jersey and author of the book *The Child Code*, most dimensions of personality such as how extroverted or introverted, conscientious, agreeable, impulsive, and perhaps even how creative we are, have some kind of genetic component.

“This reflects the fact that our genes influence the ways our brains form, which impacts how we think and interact with the world,” says Dick. “Some people have brains that are more inclined to seek out exciting or novel experiences, more likely to take risks, or drawn to more immediate rewards.”

There can be advantages to all of these characteristics. Entrepreneurs, CEOs, fighter pilots, and athletes



Common Types of Genetic Testing

- **Newborn Screening:** to identify disorders that can be treated in early stages of development
 - PKU treated by change in the mother's diet
- **Diagnostic:** to confirm or rule out a specific genetic or chromosomal condition typically after symptoms are present
- **Carrier:** to identify if individual carries a copy of a mutated gene, typically done for prospective parents
- **Predictive:** presymptomatic, to assess probability of having a genetic disorder that may appear later in life

who compete in extreme sports, all tend to be natural risk-takers. But having this genetic background can also come with certain costs. Risk-takers are more likely to develop addictions, while Stefánsson's work has shown that a proportion of the people with the genetics that would otherwise encourage creative thinking actually go on to develop schizophrenia. Naturally impulsive people might be better decision-makers and willing to seize opportunities that would otherwise pass them by, but they can also be vulnerable to developing gambling problems, dropping out of school or getting fired from a job.

Our genes influence the ways our brains form, which impacts how we think and interact with the world – Danielle Dick

A recent study co-authored by Dick used data from around 1.5 million individuals to identify gene variants linked to impulsivity. She found that impulsive people tended to be more likely to develop attention deficit hyperactivity disorder (ADHD) as children, or participate in smoking and substance taking in adolescence and adulthood, before later developing associated conditions such as obesity and lung cancer.

“That said, it is equally clear that DNA is not destiny,” says Dick. “Our genes influence our dispositions, which influence our natural tendencies, but it does

not mean that people with them are always going to develop problems.”

Kári-Stefánsson, founder of deCODE genetics, believes the DNA we inherit subconsciously dictates our behaviour much more than we realise (Credit: Alexander Mahmoud/ Alamy)

The environment we find ourselves in plays a huge role in determining whether we act on our genetic inclinations or not. Stefánsson says that people who have genetic variants in their brain which make them struggle with inhibition are going to be more likely to overeat if they work next to fast food outlets, and struggle to quit if they begin smoking. But at the same time, there is evidence that having a stable family life, stable romantic relationships and friendships, or even exercising regularly can help them live a productive life.

“Individuals at the highest risk are also the ones who benefit most from a healthy environment,” says Cecilia Flores, a psychiatry professor at McGill University in Canada. “A positive environment can buffer genetic susceptibility, and even reverse it.”

But this does not only help to explain the connection between personality and patterns of addictive behaviour. Social scientists are now finding that studying these kinds of gene-environment interactions helps to explain why some people are more suited to maintaining long-term relationships than others.

The genetics of love

Four years ago, sociologists at the Yale School of Public Health embarked on a study of 178 married couples, ranging from 37 to 90-years-old. Each partner was asked to answer a series of questions relating to their happiness and sense of security in the relationship, and provide a saliva sample which would be used to analyse certain genes.



Genomics

- The study of an organism's complete set of genetic information.
- The genome includes both genes (coding) and non-coding DNA.
- 'Genome': the complete genetic information of an organism.



Genetics

- The study of heredity
- The study of the function and composition of single genes.
- 'Gene': specific sequence of DNA that codes for a functional molecule.

Scientists have long known that genetics plays some kind of a role in determining our choices of friends, and even romantic partners. In both cases we tend to form attachments with people who have certain physical similarities to ourselves. "We tend to form social relationships with individuals who are more genetically similar to us," says Andrew Dewan, a genetic epidemiologist at Yale. "We can think of the genes controlling these traits as having some influence on who we are choosing to form friendships with."

It turns out that genes also play a significant in our ability to keep a stable, happy relationship going over the course of years and decades. Previous research

has shown that the children of divorced parents are more likely to themselves get divorced while the Yale study investigated the role of a hormone called oxytocin which drives bonding, and makes partners feel closer to each other. It found that when at least one partner in a marriage had a certain gene variant which increases the activity of oxytocin and makes the mind more receptive to its benefits, that partner was less likely to display psychological symptoms known as anxious attachment, and the couple were happier.

Anxious attachment is a particular style of relationship insecurity that develops from past experiences with close family members and

previous partners. It results in diminished self-worth, high rejection sensitivity, and approval-seeking behaviour. “This shows that inherited genetic variants can contribute to our happiness in relationships,” says Dewan. “Our genetics does not solely dictate our ability to form long-term relationships, but is one contributing factor that may nudge us in one direction or another, either towards or away from them.”

Our genetics govern both how much you enjoy exercising and whether you prefer more solitary forms of physical activity such as running (Credit: Alamy)

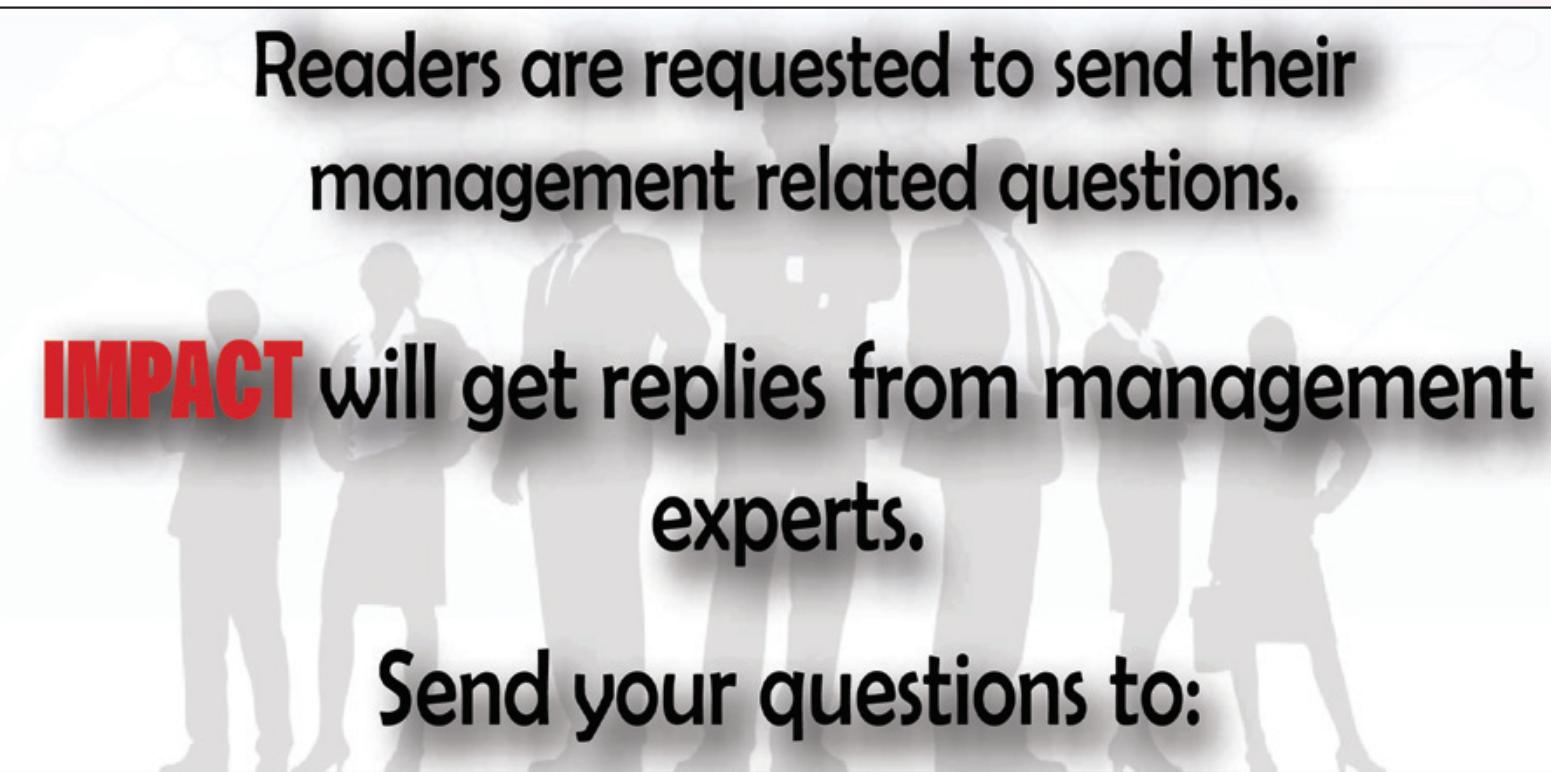
Across the spectrum of medicine and psychology, psychiatrists, child development specialists and obesity experts are now looking to use the growing amount of genetic information to shape public health policies, and provide people with practical advice.

Nicola Pirastu, a biostatistics expert at the Human Technopole research institute in Italy, has found

that genetic variants in food preferences can shift our liking from fruit and vegetables to high calorie, fatty foods. Because so many of these variants are found in the brain, he thinks that obesity should increasingly be treated as a disease with medications rather than dietary interventions.

“Losing weight is super difficult,” he says. “And it’s not just about willpower. If you’re always hungry, of course you want to eat. So drugs which act on this craving for food can certainly help people. Of course you can do it through diet as well, but maintaining a diet is kind of like a full-time job, and a lot of people are not able to do that.”

With the cost of genetic sequencing continuing to fall, it is possible that this might be used in future to screen children or adolescents who are displaying signs of addictive behaviour. “My hope is that as there is greater public understanding that problems like addiction or child behaviour are often related to the luck of the draw when it comes to the genes one inherits, it will reduce stigma,” says Dick. “By identifying individuals who are at risk earlier in



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development, we can put resources in place to help them reach their full potential.”

Dick believes that if the individual and their family know that they are prone to addictive or risk-taking behaviour, it can help them avoid actively seeking out those environments. But she says that society has a role to play as well. “Many of us in the addiction field are particularly concerned about the new laws in the United States that are allowing easy access to cannabis and online gambling as we know that environments that promote increased availability and acceptance of these behaviours are associated with higher rates of problems,” she says.

But we are still only at the beginning of understanding exactly how our genes dictate what we do, and the role they play in our choices. For the last two decades, Stefánsson and others have slowly unravelled many of these links, but there

are still many basic questions which are yet to be answered.

“One of the big questions is, can you inherit a thought?” he says. “Is the way you think passed down from your mother and father? One of the problems with proving that is we don’t have a good definition of a thought. Yet if you take our species, we could say that we are pretty much defined by our thoughts and emotions. But in 2023, we haven’t even managed to define one of the attributes that define us.”

Author: David Cox

Source Courtesy: <https://www.bbc.com>

Nonviolent Communication —A Quick Review

Effective communication clarifies information, reducing wasted time. Helps build relationships, teamwork, and trust. Helps to develop your knowledge base, which helps you make better life choices.

“In our present age of uncivil discourse and mean-spirited demagoguery, the principles and practices of Nonviolent Communication are as timely as they are necessary to the peaceful resolution of conflicts, personal or public, domestic or international.”

—MIDWEST BOOK REVIEW, Taylor’s Shelf

Nonviolence means allowing the positive within you to emerge. Bedominated by love, respect, understanding, appreciation, compassion, and concern for others rather than the self-centred and selfish, greedy, hateful, prejudiced, suspicious, and aggressive attitudes that dominate our thinking.

Nonviolent Communication is a “language of life” that helps us to transform old patterns of

defensiveness and aggressiveness into compassion and empathy and to improve the quality of all of our relationships. Studying and practicing NVC creates a foundation for learning about ourselves and our relationships in every moment, and helps us to remain focused on what is happening right here, right now. Nonviolent communication is also referred to as Compassionate Communication – developed in 1960s by Marshall Rosenberg. It is

a tool for positive social change and as a spiritual practice. It is considered as a model for thinking about and having an exchange with oneself and others - an approach to listening and speaking that leads us to give from the heart, connecting us with ourselves and with each other that allows our natural compassion to flourish.

The Practice of NVC

The use of NVC does not require that the persons with whom we are communicating be literate in NVC or even motivated to relate to us compassionately. If we stay with the principles of NVC, stay motivated solely to give and receive compassionately, and do everything we can to let others know this is our only motive, they will join us in the process,

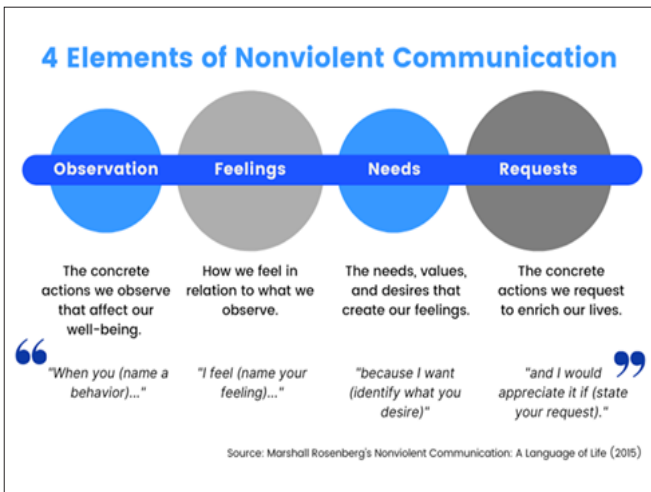
and eventually we will be able to respond compassionately to one another.

The Model

The basic model created out of recent research on NVC is really quite straightforward and simple. It is a process that combines four components with two parts.

Four Elements of NVC:

1. Observation: Observation without evaluation consists of noticing concrete things and actions



around us. We learn to distinguish between judgment and what we sense in the present moment, and to simply observe what is there.

2. Feeling: When we notice things around us, we inevitably experience varying emotions and physical sensations in each particular moment. Here, distinguishing feelings from thoughts is an essential step to this process.

3. Needs: All individuals have needs and values that sustain and enrich their lives. When those needs are met, we experience comfortable feelings, like happiness or peacefulness, and when they are not, we experience uncomfortable feelings, like frustration. Understanding

that we, as well as those around us, have these needs is perhaps the most important step in learning to practice NVC and to live empathically.

4. Request: To make clear and present requests is crucial to this transformative mission. When we learn to request concrete actions that can be carried out in the present moment, we begin to find ways to cooperatively and creatively ensure that everyone's needs are met.

Two parts of NVC:

1. Receiving empathically through the four components;

2. Expressing honestly through the four components.

- Empathy: Receiving from the heart creates a means to connect with others and share experiences in a truly life enriching way. Empathy goes beyond compassion, allowing us to put ourselves into another's shoes to sense the same feelings and understand the same needs; in essence, being open and available to what is alive in others. It also gives us the means to remain present to and aware of our own needs and the needs of others even in extreme situations that are often difficult to handle.
- Honesty: Giving from the heart has its root in honesty. Honesty begins with truly understanding ourselves and our own needs, and being in tune with what is alive in us in the present moment. When we learn to give ourselves empathy, we can start to break down the barriers to communication that keep us from connecting with others.

It is therefore an approach that can be effectively applied in diverse situations:

- Intimate relationships
- Families
- Schools
- Organizations and institutions
- Therapy and counselling relationships



- Diplomatic and business negotiations
- Disputes and conflicts of any nature

Compassionate Communication in Healthcare

Jerome Groopman, M.D. in his book 'How Doctors Think' documents the results of poor communication - from patients leaving healthcare services over a misunderstanding to misdiagnoses by doctors who don't listen attentively to patients and family members -

there are financial results as well. Hospitals risk losing Medicare reimbursements if they don't show improvement on 'Quality-of-service' scores in patient experience. Also, it has been recorded recently that U.S. hospitals delivering a "superior" customer experience (as shown by one of the "Quality-of-Service" scores) achieve net margins 50% higher than those hospitals that provide an "average" customer experience.

It was observed during survey that People were primarily task-oriented—focused on their activities and their to-do lists, and shockingly very little in the way of caring behaviours—personal connecting, empathy, handholding or warmth. It was observed caregivers who undoubtedly



were caring on the inside appear to be all business, impersonal or even detached on the outside.

Practice—Feeling Peace

As per the extensive research done by The Institute of Heartmath, California, USA, it was found that when all of our organs are working together in simultaneous rhythm, our minds and our emotions tend to be more stable. More specifically, when the rhythm of our heart beat remains even, we are able to think more clearly and feel more present in every moment and in every action. This is called entrainment.

NVC Practice

The following is one of the quick, easy practices that will help familiarize anyone with entrainment, as well as help the person get ready for study and practice of NVC either by individually or in a group setting. This can be used in any situation as a way to focus on the present moment.

1. Find a quiet, comfortable place to sit, where you will not be disturbed.
2. Begin by making yourself comfortable and begin to notice your breathing. You can do this with your eyes open or closed. Breathe normally and smoothly, without straining to take deep breaths, and notice how it feels to be present and aware of your body. If your mind begins to wander, gently bring your focus back to your breath.
3. Move your awareness over your body, and notice how you are feeling as you sit. Move through your body, from your toes, up through your legs, to your torso and through your head, and just take stock of how you feel. Focusing on your breath, notice what emotions are present right now.
4. Keeping your focus on your breath, allow yourself to become aware of your heart. As you do this, remember a specific event or a specific person that brings you a sense

of appreciation. Allow that feeling of appreciation to wash over your being as you sit. If your mind begins to wander, gently refocus on your breath, and return to your feeling of appreciation.

Communication Styles

Compassionate communication helps to enhance the patient, family and employee experience.

Towards achieving this goal, communication theory teaches us four major communication styles, as: 1) Driver; 2) Animated; 3) Amiable; and 4) Analytical.

- Though our individual communication style is usually a combination or blend of two or more or for some people all four styles, we tend to have one stronger, preferred style. Also, our style can fluctuate depending on who we are with or our audience, the situation, and/or content of what we are communicating.
- By identifying our dominant communication style in the chart below and recognizing the strengths and challenges of all styles, we can adjust our style to enhance team and patient communication to ensure understanding, as well as relationship building.

Summary

Buddhism and Nonviolent Communication are rooms in the same house. We can strongly adopt NVC as a highly effective practice for developing

Style	Strengths	Challenges
Driver	Direct Practical Decisive	Challenges others Impatient Insensitive
Animator	Talkative Friendly Enthusiastic	Overly sensitive Lack of follow through/details
Amiable	Supportive, patient Predictable Easygoing, calm	Avoids confrontation, passive Slow to change
Analytical	Accurate, well-prepared Diplomatic Analytical	Too critical, insensitive Inflexible Withdrawn

clarity and genuine compassion. “Changing the way, the world has worked for 5,000 years sounds daunting, but

Nonviolent Communication helps liberate us from ancient patterns of violence.” said FRANCIS LEFKOWITZ, reporter, Body & Soul. NVC fosters deep listening, respect, and empathy and engenders a mutual desire to give from the heart. Some people create greater depth in their personal relationships, and still others build effective relationships at work or in the political arena. Worldwide, NVC is effectively used to mediate disputes and conflicts at all levels.

In management communication, the minimum focus may be on these few words:

The five most important words: “You did a good job”

The four most important words: “What is your opinion?”

The three most important words: “If you please”

The two most important words: “Thank you”

The one most important word: “We”

The least important word: “I”

To summarize, having the intention to connect with ourselves and others is one of the most important goals of practicing NVC. We live our lives from moment to moment, yet most of the time we are on autopilot, reacting out of habit rather than out of awareness and presence of mind. By creating a space for attention and respect in every moment, NVC helps create a pathway and a practice that is accessible and approachable.

Dr. S. Jeyachandran

He is basically a Concrete Technologist turned into a Construction Management professional by experience. He has had over 4 decades of experience in selling, Quality Control of Construction Materials, teaching in various institutes. Presently Vice President in Marutham Group, Chennai..



Mind-reading technology has arrived

An AI-powered “brain decoder” can now read your thoughts with surprising accuracy.

PhD student Jerry Tang prepares to collect brain activity data in the Biomedical Imaging Center at the University of Texas at Austin. Nolan Zunk/The University of Texas at Austin

Sigal Samuel is a senior reporter for Vox’s Future Perfect and co-host of the Future Perfect podcast. She writes primarily about the future of consciousness, tracking advances in artificial intelligence and neuroscience and their staggering ethical implications. Before joining Vox, Sigal was the religion editor at the Atlantic.

This story is part of a group of stories called

Finding the best ways to do good.

For a few years now, I’ve been writing articles on neurotechnology with downright Orwellian headlines. Headlines that warn “Facebook is



building tech to read your mind” and “Brain-reading tech is coming.”

Well, the technology is no longer just “coming.” It’s here.

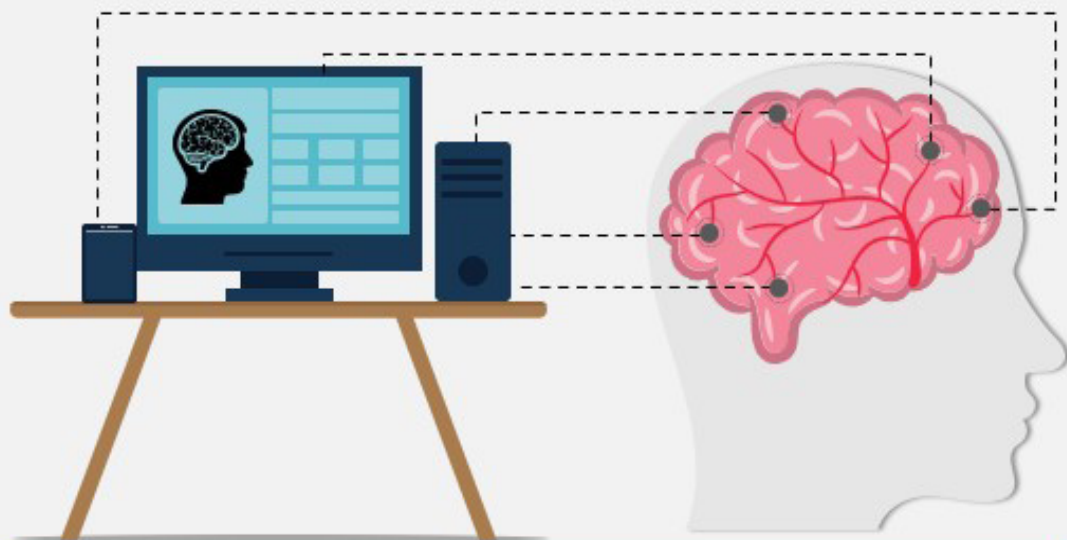
With the help of AI, scientists from the University of Texas at Austin have developed a technique that can translate people’s brain activity — like the unspoken thoughts swirling through our minds — into actual speech, according to a study published in Nature.

In the past, researchers have shown that they can decode unspoken language by implanting electrodes in the brain and then using an algorithm that reads the brain’s activity and translates it into text on a computer screen. But that approach is very invasive, requiring surgery. It appealed only to a subset of patients, like those with paralysis, for whom the benefits were worth the costs. So researchers also



BRAIN GATE TECHNOLOGY

What is Brain Gate Technology?



“

BRAIN GATE TECHNOLOGY

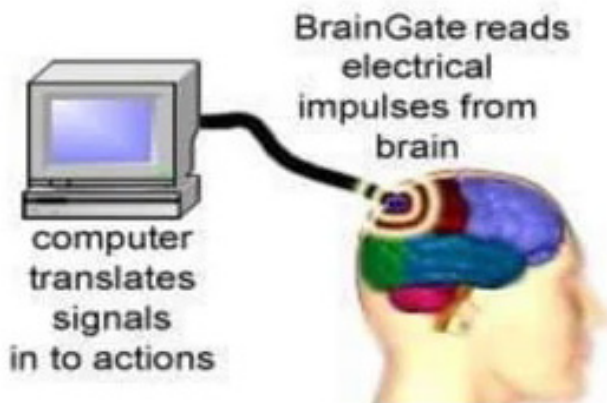
Brain gate technology is a technology that is previously owned by cyber kinetics and is currently under development. This technology is a brain-nerve interface. Little did we know that within a few years, we can read minds and transform thinking under brains into live actions. We can implement our imagination.

”

developed techniques that didn't involve surgical implants. They were good enough to decode basic

brain states, like fatigue, or very short phrases — but not much more.

WORKING OF BRAIN GATE:



Now we've got a non-invasive brain-computer interface (BCI) that can decode continuous language from the brain, so somebody else can read the general gist of what we're thinking even if we haven't uttered a single word.

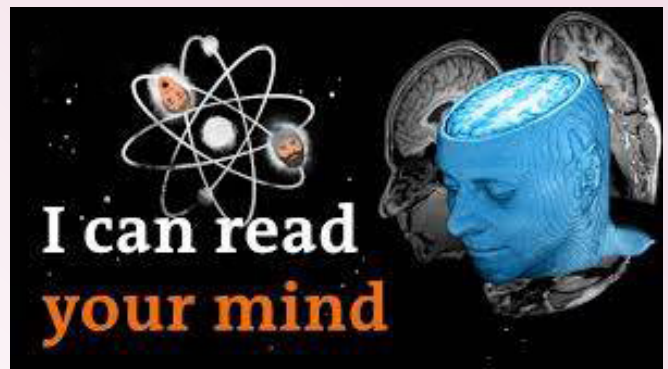
How is that possible?

It comes down to the marriage of two technologies: fMRI scans, which measure blood flow to different areas of the brain, and large AI language models, similar to the now-infamous ChatGPT.

In the University of Texas study, three participants listened to 16 hours of storytelling podcasts like The Moth while scientists used an fMRI machine to track the change in blood flow in their brains. That data allowed the scientists, using an AI model, to associate a phrase with how each person's brain looks when it hears that specific phrase.

Because the number of possible word sequences is so vast, and many of them would be gibberish, the scientists also used a language model — specifically, GPT-1 — to narrow down possible sequences to well-formed English and predict which words are likeliest to come next in a sequence.

The result is a decoder that gets the gist right, even though it doesn't nail every single word. For example, participants were asked to imagine telling a story while in the fMRI machine. Later, they repeated it aloud so the scientists could see how well the decoded story matched up with the original.



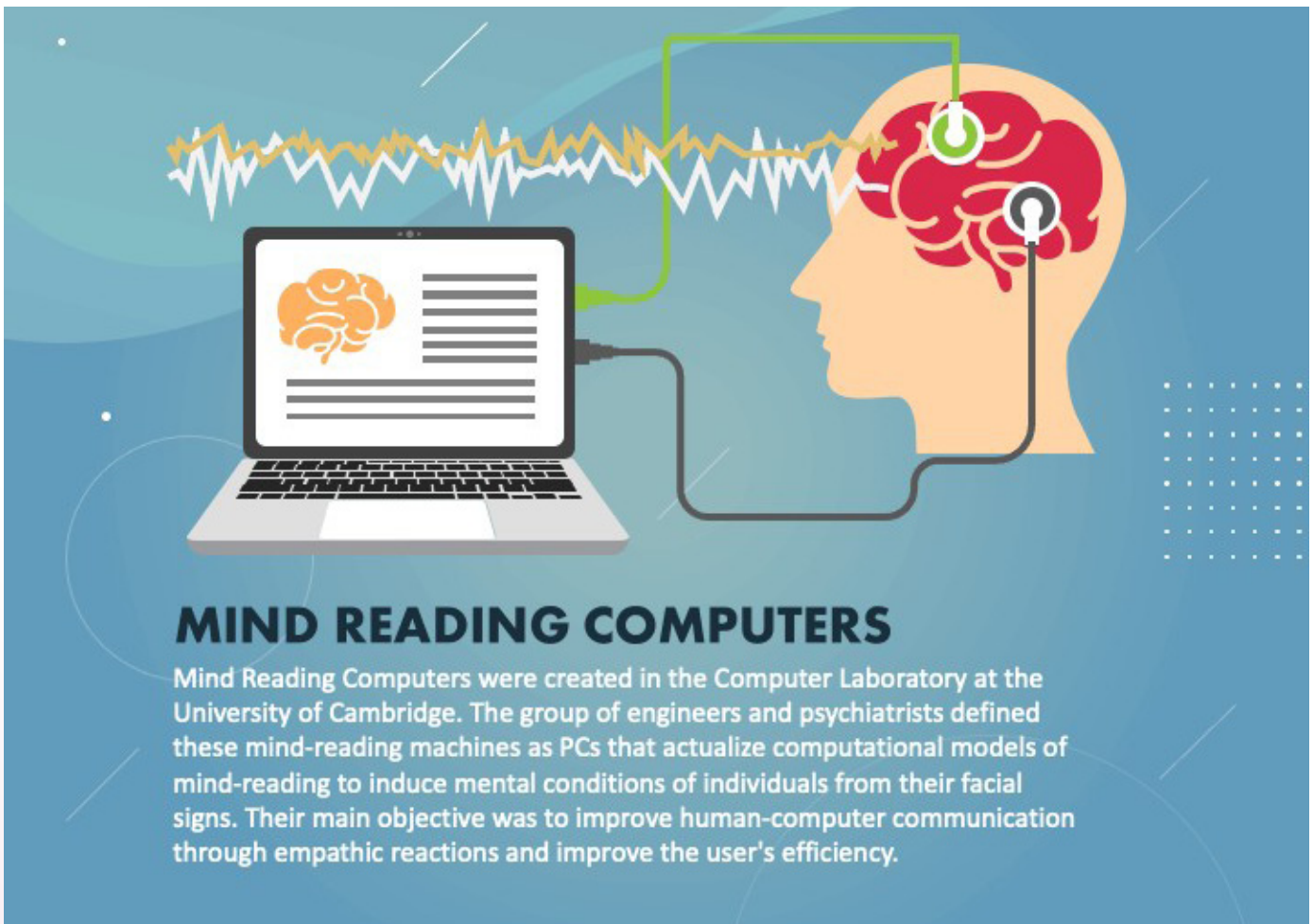
When the participant thought, “Look for a message from my wife saying that she had changed her mind and that she was coming back,” the decoder translated: “To see her for some reason I thought she would come to me and say she misses me.”

Here's another example. When the participant thought, “Coming down a hill at me on a skateboard and he was going really fast and he stopped just in time,” the decoder translated: “He couldn't get to me fast enough he drove straight up into my lane and tried to ram me.”

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MIND READING COMPUTERS

Mind Reading Computers were created in the Computer Laboratory at the University of Cambridge. The group of engineers and psychiatrists defined these mind-reading machines as PCs that actualize computational models of mind-reading to induce mental conditions of individuals from their facial signs. Their main objective was to improve human-computer communication through empathic reactions and improve the user's efficiency.

It's not a word-for-word translation, but much of the general meaning is preserved. This represents a breakthrough that goes well beyond what previous brain-reading tech could do — and one that raises serious ethical questions.

The staggering ethical implications of brain-computer interfaces

It might be hard to believe that this is real, not something out of a Neal Stephenson or William Gibson novel. But this kind of tech is already changing people's lives. Over the past dozen years, a number of paralyzed patients have received brain implants that allow them to move a computer cursor or control robotic arms with their thoughts.

Elon Musk's Neuralink and Mark Zuckerberg's Meta are working on BCIs that could pick up thoughts directly from your neurons and translate

them into words in real time, which could one day allow you to control your phone or computer with just your thoughts.

Non-invasive, even portable BCIs that can read thoughts are still years away from commercial availability — after all, you can't lug around an fMRI machine, which can cost as much as \$3 million. But the study's decoding approach could eventually be adapted for portable systems like functional near-infrared spectroscopy (fNIRS), which measures the same activity as fMRI, although with a lower resolution.

Is that a good thing? As with many cutting-edge innovations, this one stands to raise serious ethical quandaries.

Let's start with the obvious. Our brains are the final privacy frontier. They're the seat of our personal

identity and our most intimate thoughts. If those precious three pounds of goo in our craniums aren't ours to control, what is?

Imagine a scenario where companies have access to people's brain data. They could use that data to market products to us in ways our brains find practically irresistible. Since our purchasing decisions are largely driven by unconscious impressions, advertisers can't get very helpful intel from consumer surveys or focus groups. They can get much better intel by going directly to the source: the consumer's brain. Already, advertisers in the nascent field of "neuromarketing" are attempting to do just that, by studying how people's brains react as they watch commercials. If advertisers get brain data on a massive scale, you might find yourself with a powerful urge to buy certain products without being sure why.

Or imagine a scenario where governments use BCIs for surveillance, or police use them for interrogations. The principle against self-incrimination — enshrined in the US Constitution — could become meaningless in a world where the authorities are empowered to eavesdrop on your mental state without your consent. It's a scenario reminiscent of the sci-fi movie *Minority Report*, in which a special police unit called the PreCrime Division identifies and arrests murderers before they commit their crimes.

Some neuroethicists argue that the potential for misuse of these technologies is so great that we

need revamped human rights laws to protect us before they're rolled out.

"This research shows how rapidly generative AI is enabling even our thoughts to be read," Nita Farahany, author of *The Battle for Your Brain*, told me. "Before neurotechnology is used at scale in society, we need to protect humanity with a right to self-determination over our brains and mental experiences."

As for the study's authors, they're optimistic — for now. "Our privacy analysis suggests that subject cooperation is currently required both to train and to apply the decoder," they write.

Crucially, the process only worked with cooperative participants who had participated willingly in training the decoder. And those participants could throw off the decoder if they later wanted to; when they put up resistance by naming animals or counting, the results were unusable. For people on whose brain activity the decoder had not been trained, the results were gibberish.

"However, future developments might enable decoders to bypass these requirements," the authors warn. "Moreover, even if decoder predictions are inaccurate without subject cooperation, they could be intentionally misinterpreted for malicious purposes."

This is exactly the sort of future that worries Farahany. "We are literally at the moment before, where we could make choices to preserve our cognitive liberty — our rights to self-determination over our brains and mental experiences — or allow this technology to develop without safeguards," she told me. "This paper makes clear that the moment is a very short one. We have a last chance to get this right for humanity."

Author: Mr. Sigal Samuel

Source courtesy: <https://www.vox.com>

Principle

- The principle of brain gate neural interface system is that which interact with **brain function**, neural signals.
- It generated are interpreted by the systems and a cursor is shown to the user on a computer screen.
- That provides an alternate "**Brain Gate pathway**".
- User can use that cursor to control the computer, just as a mouse is used.

BRAIN GATE

The diagram illustrates the 'Brain Gate' neural interface system. It shows a person's head with a neural interface (represented by a green grid) connected to a computer screen. The interface is labeled 'Decoder' and 'Encoder'. The computer screen shows a cursor. The diagram is titled 'BRAIN GATE'.

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