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## Intuition and the Subconscious

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**T**HIS has been true for me two times in recent years. In my second year of university, one night I saw in my dream one of my friends was asking me to go to his village with him the next day. On the very next day, he asked me the same thing I heard already!! Believe me or not, it materialized. The second one happened not in my dream; it was an anticipation that became true very fast. Both the incidents indicate what we call intuition.

In my last article, here in Science and Life, I explained the role of genes and environment in shaping the mind which starts very early in the developmental stages and I was emphasizing on conscious state of mind which could make our life better and happier. But, today I will be talking about the other state of mind, the subconscious one. Does it offer any good for us? The answer is affirmative. Subconscious mind, in fact, may play a crucial role in many of the mental facilities we prize as uniquely human, including creativity, memory, learning and language. Our subconscious is not an unthinking autopilot that needs to be subjugated by rationality, but a purposeful, active and independent guide to behavior and what it suggests come as intuition. "Intuition is a subconscious mind-body connection that is with us



Intuition can be prophetic or premonitory



Imagine the upper part of the iceberg as conscious state of mind, the rest is subconscious

from infancy", says Mona Lisa Schulz, M.D., Ph.D. It can be an instance in which you suddenly know the answer to a question you have been struggling with, or it may come as a message. If you listen to these signals, you will make better decisions about your health, career, and relationships.

Think about your childhood. You used to take decisions very quick without judging what was good for you, not judging what was bad for you either. Rather, you only used to focus on what you wanted. That is the exclusive use of intuition. But, as grownups, you use logic, rationality and consequences as you become more

conscious about everything, relying on common sense and advice to make important decisions. Nonetheless, grownups too, should not ignore their intuition. Should they follow their heart then? Should they do what their gut tells? It can be suggested that they should not, at least, ignore them. "Our minds process vast amounts of information outside of consciousness and beyond language. Within a quarter-second of seeing anything, we evaluate it." This process is exceedingly correct in most of the cases. In a study done at Harvard University, a group of observers were shown 30-second video clips of graduate students

teaching a class and were asked to fill out an evaluation of the teacher based on their first impressions. Amazingly, their assessments of the teachers accurately predicted those made by the students who had been in the class for an entire semester. The observers' snap judgments were almost always correct.

Importantly, the other side of the coin should also be taken into consideration. Like our mental abilities, intuition is not perfect in every case. The key to successful decision making is, therefore, realizing when to trust your intuition and when to be wary of it. Some intuitions are stubbornly

resistant to analysis, and it is exactly those intuitions that we should not trust. "I am a gut player. I rely on my intuitions", President George W. Bush explained to Bob Woodward of the Washington Post regarding his decision to launch the Iraq war. See, how dangerous it can be.

At the end, it is all about making a balance. As over-thinkers become stuck in a cycle of endless reasoning and ultimately decide nothing, while the speedy types feel remorse and go into damage-control mode for not thinking through the consequences, balance of these two could be the savior. Microsoft's Bill Gates said in a 2010 interview with CNN, "If I think something is going to catch on, I trust my own intuition." Crucially, he also acknowledged that intuition can be "often wrong, but my batting record is good enough that I keep swinging every time the ball is thrown".

What you need to find is a happy medium where you make sound decisions without regrets. This can be done by trusting intuitions coming from your subconscious while applying some logic and reasoning. This is a holistic way showing you the bigger picture. So, listen to your heart, follow your gut and, at the same time, do not forget to do some logical analysis.

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SCIENCE &amp; RABINDRANATH

## Culture as shared experience

In this column Dr. Ali Asgar's article titled "Scientific thoughts of Rabindranath Tagore" will be published in instalments, each having a separate heading- Editor, Science & Life

DR. ALI ASGAR



**T**HIS broad based meaning of culture, which is inclusive of science, can be appreciated when we take the definition of culture as a shared experience which acts as a medium through which human mind interact.

Science as a public knowledge is shared by the scientists working in the field of knowledge we are referring to, and having the potential of being comprehended by any person who cares to learn the subject, satisfy he criterion of culture as a shared experience. Again technology which includes techniques, it's methodologies and knowledge, devices and products lie of technical innovation for material necessity which are shared or have the potential of being shared must also be a part of the culture. We will see that Rabindranath played a vital role in creating this unified view of culture by bridging the gap between what are put in opposition as literary culture and scientific culture.

We can see Rabindranath's life is a real example of all encompassing concepts of culture. In this article we will try to explore how Rabindranath was induced into this scientific component of total culture and how he has contributed to the unification of science and arts through his work.

It is always a mystery how the education, environment and social circumstances with all their forces influence a genius. In fact a genius or any creative person instead of being molded by the external environment entirely, brings about changes in the environment itself by his novelty.

It is true that no person is independent of the influence of the total environment but the mechanism by which a genius grows up as distinct and unique in character is quite indeterminate. The causal relation is probabilistic, rather than deterministic. The reason is that the creative aspects of the genius interact with the environment in such a way that he himself becomes a part of the environment. To illustrate this point we can take the example of measuring an electric field by bringing a test charge. Normally the experienced force will give the measure of the external field. But if the test charge is possessed with a high value, the field it will experience is not the preexisting field but a new field where the contribution of the test charge itself is to be taken into account. In social interaction the role of great personalities is much more complicated. To extend the analogy we might think of the spring of the test charge, which has a magnetic component and the associated complications.

I would like to suggest that a genius is a rare and unique person who is the expression of a very rare probability that is inherent in the complex of the social system in which the genius is born. Because of the rarity of such probability, not the impossibility, the number of geniuses in the world is so few and far between.

NEW TWIST

## Screwy symmetry

**P**HYSICISTS have put a new twist on the humble corkscrew. Just as a butterfly appears identical to its mirror image, objects made of structures that tilt, twist or spiral possess a symmetry now recognized for the first time.

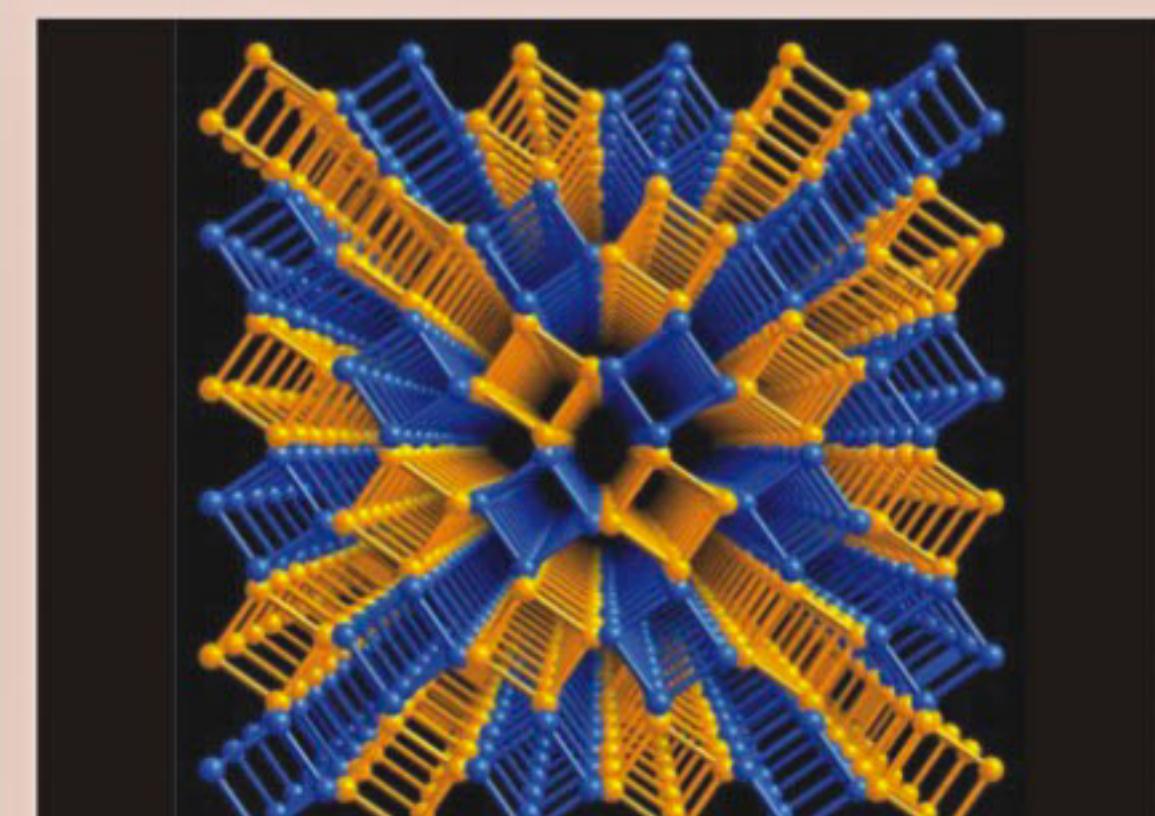
The new discovery is based on a mathematical operation that transforms a clockwise helix into a counter-clockwise one, or vice versa.

"Normally, a helix flips when you put a mirror up to it," says Venkatraman Gopalan, a materials scientist at Pennsylvania State University in University Park. "We've developed a special kind of mirror with this math woven into it." Seen in this mirror, an object with a spiral shape will look just like itself.

This symmetry joins a list of other, long-known ways to move or manipulate an object and leave it looking the same afterwards. A snowflake has what's called rotation symmetry: Turn it 60 degrees, and its appearance doesn't change. A piece of wallpaper with a repeating pattern looks identical when moved a bit to the right or left, demonstrating translational symmetry.

"This new symmetry we're playing around with has not been taken into account up to now," says Daniel Litvin, a physicist at Penn State Berks in Reading and coauthor with Gopalan of an April 3 paper in *Nature Materials*. "It gives you a finer classification of materials."

Source: Science News



Molecular structures that tilt clockwise (orange) or counterclockwise (blue) have revealed a new kind of symmetry

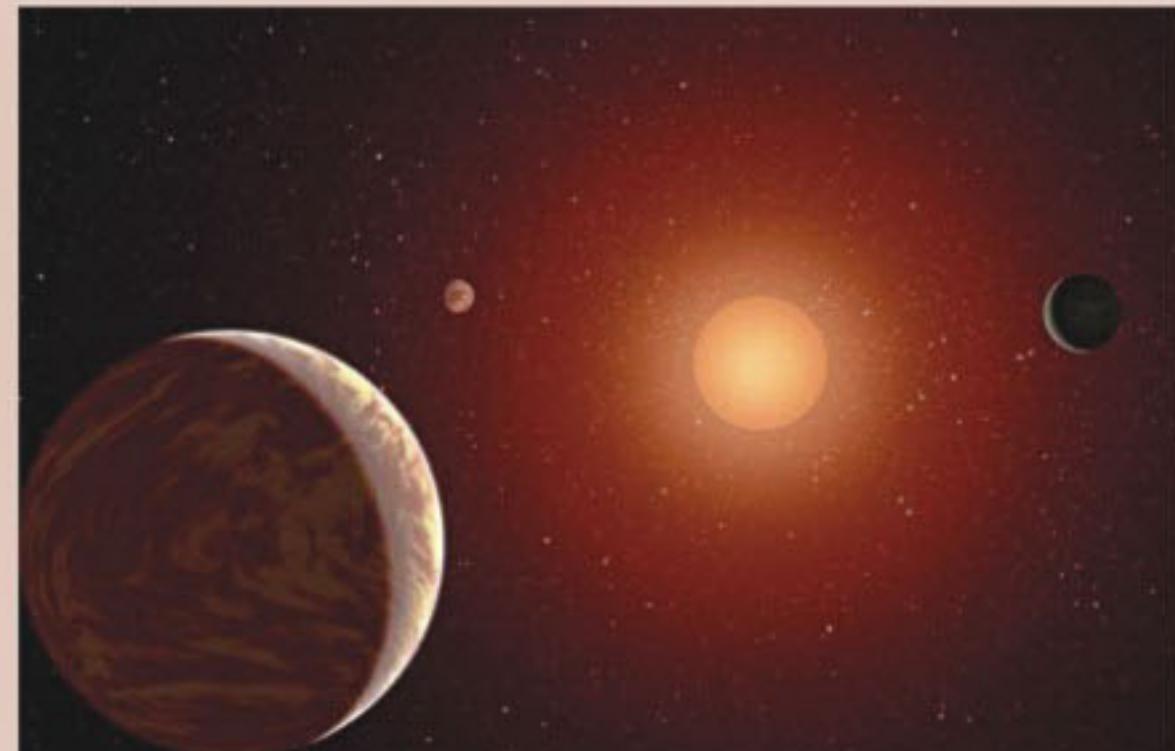
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GALAXY FINDER

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DID YOU KNOW?

## Seeing planets beyond Solar System



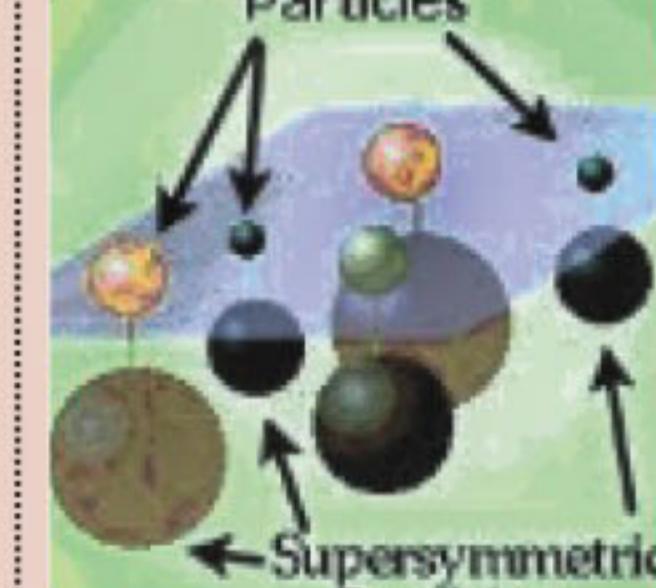
This artist's concept illustrates a young, red dwarf star surrounded by three planets

Astronomers have come up with a new way of identifying close, faint stars with NASA's Galaxy Evolution Explorer satellite. The technique should help in the hunt for planets that lie beyond our solar system, because nearby, hard-to-see stars could very well be home to the easiest-to-see alien planets.

The glare of bright, shining stars has frustrated most efforts at visualizing distant worlds. So far, only a handful of distant planets, or exoplanets, have been directly imaged. Small, newborn stars are less blinding, making the planets easier to see, but the fact that these stars are dim means they are hard to find in the first place.

Fortunately, the young stars emit more ultraviolet light than their older counterparts, which makes them conspicuous to the ultraviolet-detecting Galaxy Evolution Explorer

## What are superpartner of particles?



In particle physics, a superpartner (also sparticle) is a hypothetical elementary particle. Supersymmetry is one of the synergistic bleeding-edge theories in current high-energy physics which predicts the existence of these "shadow" particles. The word superpartner is a portmanteau of the words supersymmetry and partner (sparticle is a portmanteau of supersymmetry and particle).

Source: Science Daily