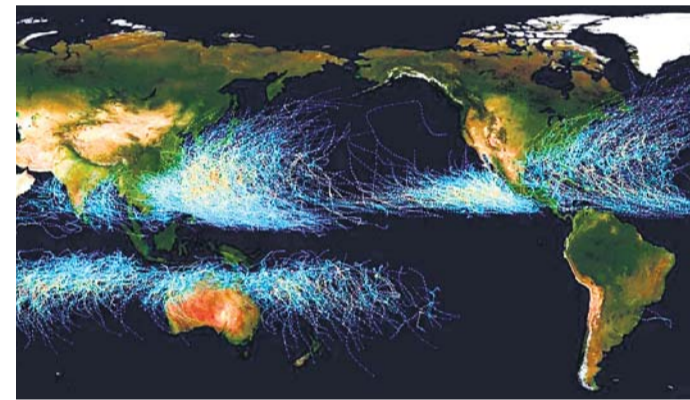


#INSIGHT

Hurricanes never cross the equator. Here's why!

Thanks to the *Coriolis force*, hurricanes never cross the equator.



There are four things about hurricanes that you may not know.

One They're the local name of a global phenomenon. Large tropical storms in the western part of the Pacific Ocean are called *typhoons*. In the Indian Ocean, they're called *cyclones*. In the North Atlantic or the eastern part of the Pacific, they're *hurricanes*. The term "tropical cyclones" is often used as a catch-all term. Occasionally, a storm will "cross over" and get two labels, as happened in 2006 with *Ioke*. Arising in the Central North Pacific as hurricane *Ioke*, the storm wandered into the Northwest Pacific, where it was known as *typhoon Ioke*.

Two There will never be a hurricane in Israel. Hurricanes are named alphabetically, alternating male and female names, from lists that rotate every six years. The first Atlantic hurricanes of 2025 will be Andrea, Barry, Chantal, and Dexter, while the first Pacific ones will be Alvin, Barbara, Cosme, and Dalia. Similar systems are in place for cyclones and typhoons. Names of particularly heavy storms are taken out of rotation, as are names deemed politically or culturally sensitive. So, for one reason or another, there will never again be Atlantic hurricanes called *Floyd* (last used in 1999), *Katrina* (2005), or *Sandy* (2012), nor Pacific hurricanes called *Adolph* (2001), *Israel* (designated for 2001 but never used), or *Izis* (2004).

Three There are no hurricanes (or whatever you want to call them) in the Southeast Pacific or the South Atlantic. Almost 90% of large tropical storms



AI, Mathematics and More



Marcus du Sautoy believes that artificial intelligence learns from humans the way a child learns from his parents. He says that whether AI turns good or bad in the long run will depend on the environment humans develop it in.

MARCUS DU SAUTOY



THE CREATIVITY CODE

HOW AI IS LEARNING TO WRITE, PAINT AND THINK

- 'Du Sautoy's discussion of computer creativity is fascinating' Observer
- 'Thoughtful and illuminating' The Times
- 'A wonderful, brilliant, joyous read!' Philippe Sands
- 'Compelling and thought-provoking' Jim Al-Khalili

PART:2

population. But I think one has to be very careful because we've seen that the brain is not as cleanly divided up as we thought it was in a left-right brain.

● **How can you get students, who don't love maths in a later stage of life, to actually fall in love? Let's say quadratic equations, you know, all those complicated math, how do you get them to love math?**

I think coming back to mathematics again that you didn't get the first time, for example, quadratic equations, you didn't get it the first time, but we're a bit like rabbits in a headlight. You know, we freeze. But then, when you come to it again, you say, I don't understand why I found that so frightening. So, going back to something, very often, can relax you and you can find a new way in. In fact, I'm a big supporter of actually redoing years. There's no point going on if you've failed the year. Much better to understand it rather than crashing on and getting more and more anxious. But I think, you know, our brains mature. They get more sophisticated. And somebody who's 18, for example, will begin to understand why the things that they were learning might be important for what they're doing. So, for example, in London, the University of the Arts London, where a lot of artists go to train, there's a course which is Maths for Artists. It is the fastest course to be signed up for. Because by then, the artists who are 18, 19, 20 realise, 'Oh my gosh, to make this thing or to plan this thing, or I want to make something with this particular structure.' And they realise, 'Oh my gosh, but I actually need maths to this.' Then, they are suddenly trying to make things, for which they need mathematical ideas. And so, they go, if only they told me that when I was 11, I might have concentrated but I thought it was nothing to do with what I love, which is painting or architecture. My books are mostly written for adults, for those, whom I want to value the maths, such that it changes the culture and it feeds down to their kids or their employees, and they value maths and realise, 'No, no, having somebody, who thinks mathematically, is a very powerful team player.'

● **Someone once said that you should always let your children take a business course to learn about life.**

I don't know. I've heard less. I've heard a movement away from that. That actually, it's much better. I've heard more and more people saying don't do MBAs and things like this. That actually, it's teaching a very set way of thinking. Actually, better to do something very, just expanding the mind. Go, do philosophy, instead and expand the mind. I would prefer you not to go and do a business degree. Go and do a maths degree. It makes you think about solving problems. Then, go and work in a business. Don't go and learn a business degree. I think that's a terrible waste of an opportunity.

Concluded
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International Essential Oils Day



The use of natural substances for holistic healing purposes is an ancient practice, dating back probably as far as human beings, who found that certain plants could be applied topically or made into teas to promote health and cure disease. In modern times, at least in the western world, the field of medicine has tended to move away from natural healing practices. But scientists cannot deny that plants do have a myriad of properties, that can aid humans, in their efforts towards health.

#EVOLUTION

Best Yoga Poses For Brain Fog

As refreshing as a cold shower

Brain fog always seems to strike at the worst possible moment. It creeps in right when you're trying to work on a project or give a presentation on Zoom, making it impossible to focus. It can also wreak havoc on your ability to stay organized or remember where you put your keys. Luckily, there are quite a few yoga poses that'll help by providing a much-needed dose of mental clarity.



Savasana

Corpse pose, or *savasana*, is like a mini nap for the brain. This position calms the nervous system and quiets the mind so that you feel more focused, once you get up.

- Lie on your back.
- Place a folded blanket under your head.
- Keep your face parallel to the ceiling and your chin slightly tucked.
- Extend your legs out about hip-distance apart.
- Rest your arms a few inches from your torso, with palms facing upward.
- Stay for five to ten minutes.

Child's Pose

Child's pose is the perfect mix of relaxing and reinvigorating. It helps quiet your mind while providing a full-body stretch to help you wake up.

- Start on your hands and knees.
- Widen your knees and bring your big toes to touch.
- Sit your hips back on your heels.
- Reach forward and lay your abdomen inside your thighs.
- Extend your arms fully, lengthening your torso.
- Let your forehead rest on the mat.
- Stay for one to three minutes while breathing deeply.

Downward Dog

An inverted pose like *downward dog* will combat brain fog by boosting circulation throughout your body. Plus, it can help you to relax and de-stress, reducing the likelihood of brain fog in the future.

- Start on your hands and knees on your yoga mat.
- Press into your palms and the bottoms of your feet.
- Lift your hips up towards the ceiling.
- Straighten your arms and legs without locking them so that your body forms an upside-down V-shape.
- Hold for 30 to 60 seconds.

Supported Bridge Pose

Bridge pose is one of the very best, when it comes to reducing anxiety and relieving stress so that you're more able to focus.

- Lie on your back with your knees bent.
- Lift your hips up by pressing into your feet.
- Place a bolster or blanket under your pelvis to hold you up.
- Rest your arms at your sides or bend them into a cactus shape, with your elbows level with your armpits.
- Tuck your chin slightly towards your chest.
- If your lower back is uncomfortable, extend your legs forward.
- Stay for three to five minutes.

Lotus Pose

Yoga teachers recommend *lotus pose* to relieve stress, aka one of the main causes of brain fog. This meditative posture is also a good one to help you gain mental clarity.

- Sit on the floor with your legs extended straight in front of you.
- Bend your right knee and bring your heel in as close to your pubic bone as possible.
- The sole of your right foot should be facing up, as you place the top of your foot on your left hip crease.
- Bend your left knee and bring your left heel as close to your pubic bone as possible.
- The sole of your left foot should also be facing upward.
- Ensure that both of your knees are as close to the floor as possible, and your feet are positioned close to your abdomen.
- Sit up straight with relaxed shoulders.
- Place your hands on your knees.
- Hold the pose for several deep breaths.



Head-To-Knee Forward Bend

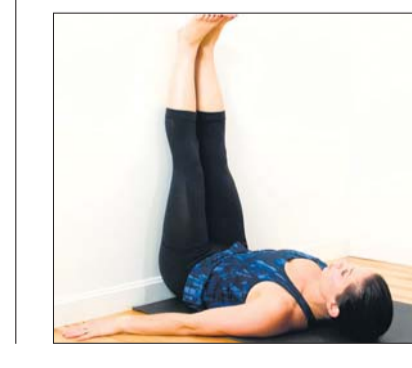
A head-to-knee forward bend, or *Janu Sirsasana*, is a pose that opens up tight back and hamstring muscles so that you feel refreshed. It also helps calm the central nervous system.

- Sit on your mat with your legs extended in front of you.
- Grab your left foot with your hands.
- Release your head towards your knee.
- Stay for one to three minutes as you focus on your breath.
- Switch sides.

Legs Up The Wall

Inverted yoga poses, like this *legs up the wall* stretch, will help sharpen your concentration by increasing circulation.

- Start by lying on your back on your yoga mat or bed.
- Shimmy your butt closer to the wall.
- Prop your legs straight up against the wall.
- Point your toes towards the ceiling.
- Relax and focus on your breathing.
- Hold for 30 to 60 seconds.



#CHIT-CHAT

So again, in some ways, what do you mean by an 'ego'? That means almost you're saying, is AI conscious? Because it's got to have a sense of self different from other. But often, when we say a sense of ego, we mean prioritising the self. So again, a sense of self will come very much later. That's about 'consciousness.' But is it altruistic or selfish?

Unfortunately, yes. The nice thing is you can steer, so, you can steer, you can try, and get an AI to identify malicious behaviour. Then, you give it malicious behaviour and it says, 'Okay, I recognise, I now recognise that that's bad and that's good.' Gradually, it starts to get a moral code. You can incentivise it to learn a moral code.

● **How can you incentivise AI?**
It's like playing a game. So, you say you lose the game if you play. Here's an example of bad behaviour. It learns that. Here's an example of good behaviour. Now here's an example of something new. What do you regard this? Is this closer to something bad or something good? And it makes a guess and it says, 'No, you got that wrong, that's bad. And so, it will update its code and say, 'Okay I will get that right next time.' And so it's a learning process. It's about



Shailaza Singh
Published Author,
Poet and a YouTuber

Does the AI emulate humans the way children learn from their parents?
Exactly. I often give the comparison to, it's like the relationship between a parent and a child. Of course, the child reflects the genetics of the parent, yet, the child is different because they interact with the environment, they interact with other friends, other people, other countries, and that is part of his learning process. For example, Picasso, his genes are the genes of his parents, but we don't say that the art that he produced is the result of his parents. Yes, partly that may have happened, but it's mostly his environment. So, the AI is written, the code, first of all, by the parent, but then, the AI interacts with everything else. It becomes its own, has its own identity, separate from the person who coded it.

● **Yes, you're saying that it is learning from the environment around it. So, if the environment around it is malicious, it can learn that behaviour?**



Marcus du Sautoy with Maisie Williams.



Marcus du Sautoy.

learning what's good. And then, it can be used in, for example, in a social context to help other people identify good and bad. So, AI is very, very flexible. And it's about how we use it. There's a very interesting novel. For JLF, I interviewed Ian McEwan, who wrote a novel called *Machines Like Me*. And it's about a moral dilemma between two humans and an AI. And in the book, Ian explores the fact that the AI actually may be more 'moral' in its decision. It will be thinking about the greater good of society whilst the humans, very often, think about individual good. And so, maybe AI often is better at making moral decisions.

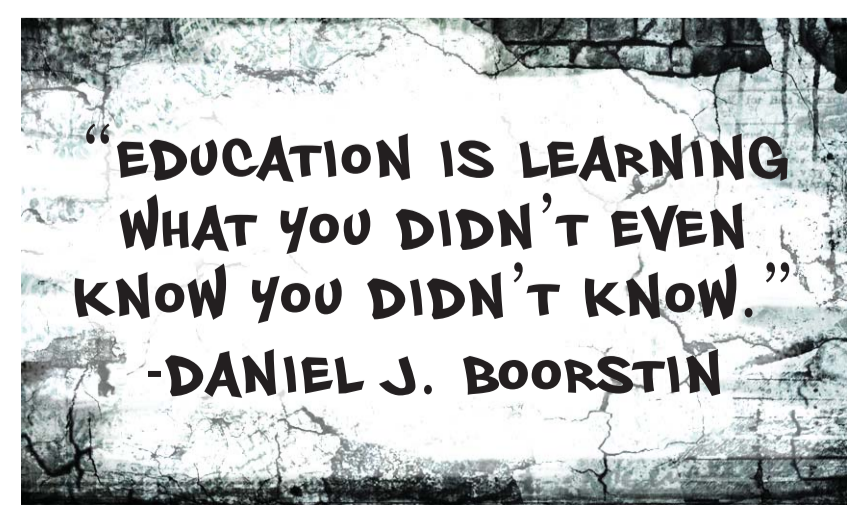
● **Can AI develop an ego?**
Well, I think AI can definitely demonstrate characteristics of ego. So again, in some ways, what do you mean by an 'ego'? That means almost you're saying, is AI conscious? Because it's got to have a sense of self different from other. But often, when we say a sense of ego, we mean prioritising the self. So again, a sense of self will come very much later. That's about 'consciousness.' But is it altruistic or selfish? Or different AI will be different according to its learning process?

- **Do you watch science fiction movies or series like Doctor Who?**
Yes! My children are obsessed with it. It has a lot of things which we think are futuristic or sci-fi. Science fiction is very often good at exploring what's possible, which then becomes science fact. So, not everything is possible. *The Time Machine*, for example, H. G. Wells, we don't think the current physics doesn't have the opportunity to go back in time. And, of course, that's a great theme for a lot of science fiction novels, going back in time. I mean, *Doctor Who* is a time traveller, the *Time Lord*. But I think it's very interesting that science is about imagination and that can first happen inside something like *Doctor Who* or a science fiction story. And one of the things you see, we're already seeing cybernetics taking great advances. So, yeah, scientists' imagination is quite close to a novelist's imagination.
- **But then, if AI or advanced machines in science can be harmful for the human race in the future, do you think we should curtail this imagination?**

I think you can never do that. So, one strategy is to try and put things back in the box. And I don't think humanity has a very good track record with keeping things in the box. I think the best thing is to let these things out of the box and then, for us to understand how do we limit the bad and profit from the good. I don't think I would want to have not discovered what gets released by splitting an atom. But that can be used to solve the energy crisis and climate change. Or it could be used to blow us all up. But it's about what we do with 'that technology.' My belief is always that we should not ever limit discovery but we should limit what we do with 'that discovery.'

● **Okay, do you believe that there's a theory that there's a left brain and right brain function. The right brain, I believe, is for creativity or logic. Do you believe maths comes only for those who are more left-brain oriented?**
So, first of all, this science of left brain, right brain has been shown to be incorrect. I mean it's true that language is more located in the left brain, the *Broca* area. I've

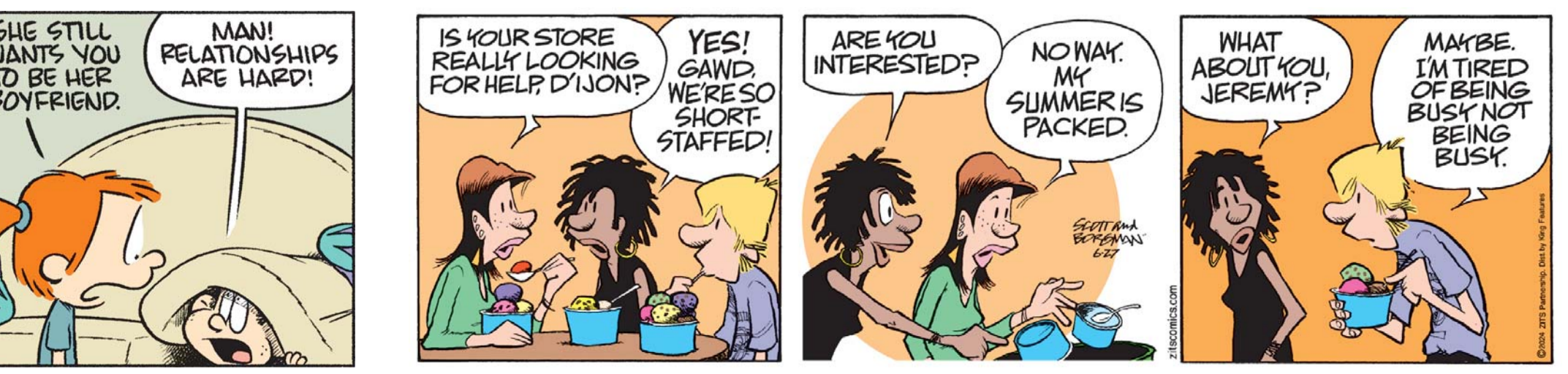
THE WALL



BABY BLUES



ZITS



By Rick Kirkman & Jerry Scott
By Jerry Scott & Jim Borgman