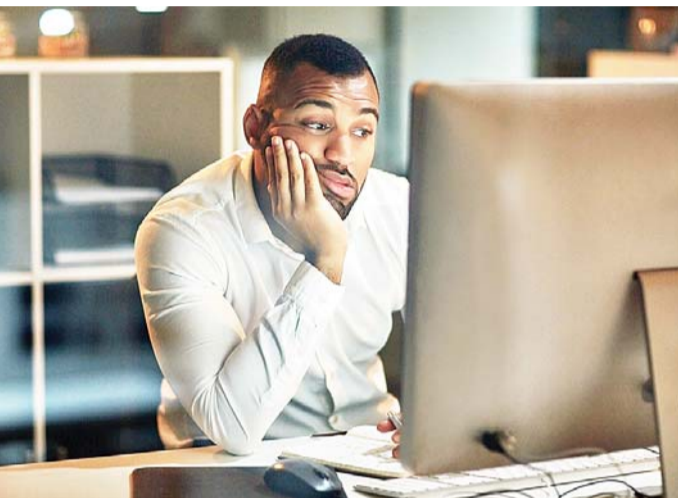


## #RESEARCH

### Bad Mood is Good Time to Proofread

"We show that when people are in a negative mood, they are more careful and analytical. They scrutinize what's actually stated in a text, and they don't just fall back on their default world knowledge."



If you're dealing with a piece of work that requires spotting inconsistencies, it may be an idea to wait until you're in a bad mood. When you're in a bad mood, you might want to focus on tasks that are more detail-oriented, such as proofreading, research indicates.

The study, published in Frontiers in Communication, builds on existing research on how the brain processes language.

Vicky Lai, assistant professor of psychology and cognitive science at the University of Arizona, worked with collaborators in the Netherlands to explore how people's brains react to language when they are in a happy mood versus a negative mood.

"Mood and language seem to be supported by different brain networks. But we have one brain, and the two are processed in the same brain, so there is a lot of interaction going on," Lai says. "We show that when people are in a negative mood, they are more careful and analytical. They scrutinize what's actually stated in a text, and they don't just fall back on their default world knowledge."

#### Good Mood, Bad Mood

Lai and co-authors set out to manipulate study participants' moods by showing them clips from a sad movie, Sophie's Choice or a funny TV show-Friends. They used a computerized survey to evaluate participants' moods before and after watching the clips. While the funny clips did not affect participants' moods, the sad clips succeeded in putting participants in a more negative mood, the researchers found.

The participants then listened to a series of emotionally neutral audio recordings of four-sentence stories that each contained a "critical sentence" that either supported or violated default, or familiar word knowledge. That sentence was displayed one word at a time on a computer screen, while participants' brain waves were monitored by EEG, a test that measures brain waves.

For example, the researchers presented study participants with a story about driving at night that ended with the critical sentence "With the lights on, you can see more." In a separate story about stargazing, the same critical sentence was altered to read "With the lights on, you can see less." Although that statement is accurate in the context of stargazing, the idea that turning on the lights would cause a person to see less is a much less familiar



concept that defies default knowledge.

The researchers also presented versions of the stories in which the critical sentences were swapped so that they did not fit the context of the story. For example, the story about driving at night would include the sentence "With the lights on, you can see less."

They then looked at how the brain reacted to the inconsistencies, depending on mood.

**Analysing The Language**  
They found that when participants were in a negative mood, based on their survey responses, they showed a type of brain activity closely associated with proofreading, research indicates.

"We show that mood matters, and perhaps when we do some tasks we should pay attention to our mood," Lai says. "If we're in a bad mood, maybe we should do things that are more detail-oriented, such as proofreading."

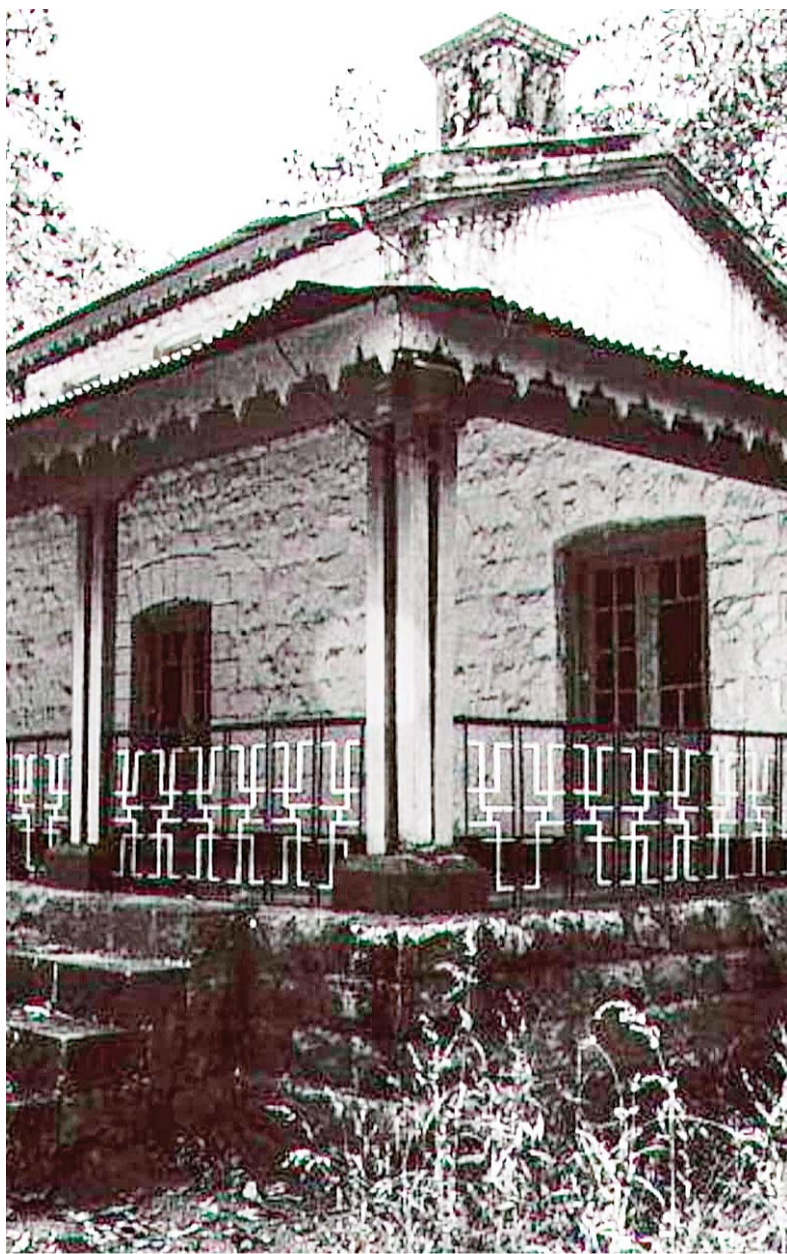
Study participants completed the experiment twice: once in the negative mood condition and once in the happy mood condition. Each trial took place one week apart, with the same stories presented each time.

"These are the same stories, but in different moods, the brain sees them differently, with the sad mood being the more analytical mood," Lai says. The study took place in the Netherlands; participants were native Dutch speakers, and the study was conducted in Dutch. But Lai believes their findings translate across languages and cultures.

By design, the study participants were all women, because Lai and her colleagues wanted to align their study with existing literature that was limited to female participants. Lai says future studies should include more diverse gender representation.

In the meantime, Lai and her colleagues say mood may affect us in ways more than we previously realized.

Co-authors are from Utrecht University and the Max Planck Institute for Psycholinguistics.



## #SPOOKED

The winter as well keeping cool in summer; it is a repository of British government exhibiting the confluence of Indo-British architecture. It was believed that few of the dak bungalows of Indian hilly regions were said to be haunted by ghosts of shahib long dead and gone. Also those were the times where village idle locals temple priests would regale tales of bandits, evil spirits and would remarkably set up the stage with narration and sound effects. Choosing moonlit nights, my father's official orderly Arjan Singh in Jaipur was a master story teller.

#### Rare State of Jeopardy

This Dak banglow was definitely not a dwelling frequented particularly after sunset. I entered the details in the visitor book along with local reference of Daulat Electricals - Nimbahera. The room had two sturdy wooden chairs, a large bed - striped cotton bed sheets spread over a thick cotton mattress - pillows and a knitted woolen blanket along with a peculiar three legged round wooden table. The room had attached large bathroom cum Indian toilet, an aluminum mug and a bucket placed under a looming sturdy heavy duty bronze water tap. Significantly there was an exit from the bathroom opening to the small garden and the view of the pathway to the outhouse of the caretaker. The bathroom had a facility of double bolt both inside and outside.

I settled in my room, it was around 8.30 pm pitch dark outside only exception of a twin 4 ft. size hanging street light fixed in silver and black cast iron post at the far end corner of the banglow. I had stuffed couple of parathas and wheat halwa in my travelling steel tiffin box while leaving from Chittorgarh. I had the packed tiffin for dinner and finally settled with two editions of Rajasthan Patrika a prominent daily Hindi newspaper of Rajasthan.

Around mid-night I woke up to a sound from the bathroom the tap was leaking and the droplets from

The water is as you observe is not flowing now, then how, BEHRO! The bucket is full and the bathroom is wet showing proof of excess water drainage. Behro quietly stood, then meekly once again asked whether he should open the mainline valve, NO, No. I will manage with the bucket water but told him not to move from the verandah till I pack my belongings. I was ready soon to fill the three small sections of the visitors book, time and date of check out, next destination and payment with remarks. The room payment rupees seven and fifty paise - remark:- "BEHRO dependable attendant, however one more person is required for the night" explained the remarks to Behro with a tip of princely rupees five; Behro was delighted and asked me when will I visit again. I did not bother to answer and concluded that Dak Bungalows were anchor for wandering officials and travellers during BRITISH rule to the most inhospitable corners of the country. A person with a sensitive hide has no right to be here, especially overnight stays

# Ghost at the Dak Bungalow of Nimbahera

the tap fully filled the bucket which was placed under the tap. Emptied the bucket and placed the bucket under the water tap, turned a valve/cut off above the water tap pipe, its closure shuts off the water flow. Having ensured that leakage has been plugged - I was able to sleep immediately. Nothing wakes up a youth particularly a travelling salesman! I woke up second time to a PLINK, PLINK PLOMP it was the noise of water droplets falling one after another and collecting in the bucket "Emptied" a while ago and the water pipe line GATE VALVE SHUT OFF!

I was still in the bed hearing the flow of the droplets constantly increasing expecting the water from the bucket to overflow. Got up quietly went in the direction of the switch and turned on the bedroom

light and in one quick reflex bolted the bathroom from outside, I was scared and realised that bathroom is one of the few places which is equipped with a bolt. Instantly felt relatively scared from the horrors that might be lurking inside the attached bathroom. There was no sleep now, lay motionless thinking of the main gate pipe valve, tap and the bucket. A feeble sound plink plink emanated, fear crept in, the sound of PLINK, PLINK, PLOMP increased droplets were filling the bucket rapidly and soon as expected an additional sound of water overflowing and draining! Terribly scared and defenceless from an unknown torture! I felt an urge to check the bathroom though natural instincts did not approve (bathroom is not a place anyone will remain longer than necessary), sudden uneasiness and advent of hiccups made me weak and feeble, dreaded that the noisy hiccups could so easily annoy the spirits around.

#### Restless and Scared

The commotion resumed this time with PLOMP, PLOMP, PLOMP along with the clamour of draining water from the bucket. While in bed I was inventing thoughts of long gone British sabbits the tales of village temple priests and Hindi movies like "Bin Badal Baraat" where I had left the theatre before intermission dreading watching the movie scene where the heroine every night alone in a dilapidated seashore villa confronted helplessly the horrors of satanic clatters and movement of drapes and curtains and portraits.

It was sheer stupidity to be in the similar 18th century secluded structure like the defenceless actress Waheeda of the horror movie. I visualised my grandfather's heroics and waited for Behro and the Dawn. Restless and scared I got up to the window, a glance at the hallway, a figure looked like a dangling silhouette, diverted attention to the gate, there the fluorescent light was bright and the shadow of the peepal tree was extending on the wall side of the banglow. Tired and hopeless I went to bed stuffing my head underneath the pillow, lay motionless till I heard some movement, leapt to the window and saw BEHRO standing near the gate, it was one of the most comforting and gratifying sight. Flung opened the door yelled BEHROO, he turned around and

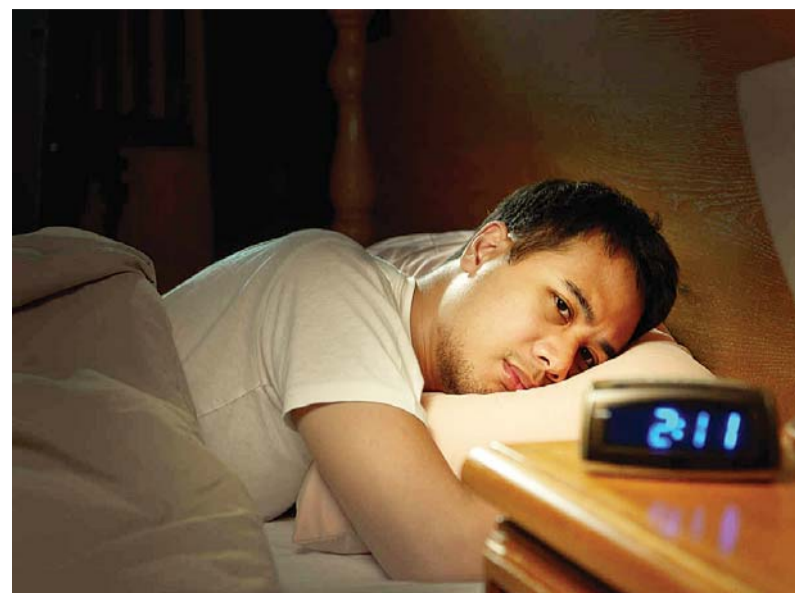


The bucket was empty, BONE DRY! I was in the bathroom around midnight for at least ten minutes, located the main line valve to be relieved from the sound of PLINK PLINK PLOMP. The water is, as you observe is not flowing now, then how, BEHRO! The bucket is full and the bathroom is wet showing proof of excess water drainage.



## Be Humble Day

Humility may be the most difficult of all the virtues to truly attain. There seems to be a paradox in that claiming to have humility may be an act of pride. Be Humble Day focuses on humbling yourself. There is no boasting allowed on Be Humble Day. Choosing not to brag about your successes and abilities can prove to be much more difficult than one might anticipate, as the culture surrounding us is often centered on self and the successes achieved by an individual.



Sudhaby is a sleepy settlement close to the holy town Puskar near Ajmer where the "Ghost Fair" is held every year. The place is located in a scenic green valley near the flowing natural lake - here people come every year to get rid of the spirit they believe possess them. Only flowers of ROHEDA are offered in copper plate to the Demon Deity.

I asked who is the plumber here, myself said Behro, I fix water leakage as well electric fuses. When was the room 3 last occupied fetch the visitor-register, noted it was on 19th August 1968 almost 7 months ago by Ramanlal Meena Jr Engineer of state government posted in Ajmer. Behro dropped me on his bicycle at the bus depot a distance of more than a kilometre. BEHRO touched my feet and slowly cycled his way to the Dak Bungalow, my eyes moistened and I will remember him at all times.

#### "Ghost Fair"

A primary school teacher boarded from Nimbahera seated next to me in the bus during the conversation said that there is another guest house near his school and the Dak Bungalow where I stayed will be demolished, a proposal is in place to erect a dispensary.

Rajasthan is popular for its ancient historical location, Forts of "Bangarh" near Sariska Tiger Sanctuary in Alwar. The entire Fort is believed to be possessed by a Female Demon another is in "Kuldhana" near the border city of Jaisalmer. The village remains abandoned for nearly 400 years the natives affirm about devils dance forming group carrying torches made of several sticks bundled together and fastened to some animal bone at night for 3 days starting from the first day of amavasya. "Sudhaby" is a sleepy settlement close to the holy town Puskar near Ajmer where the "Ghost Fair" is held every year. The place is located in a scenic green valley near the flowing natural lake - here people come every year to get rid of the spirit they believe possess them. Only flowers of ROHEDA which grows on Marwar Teak in Thar Desert are offered in copper plate to the Demon Deity. A strict dress code has to be followed of Black or dark Violet gown, liquor and currency are essential oblations offered by worshippers.

Ramjal Meena an official posted in Ajmer who was the last occupant of the Dak Bungalow Room-3, before my overnight stay almost seven months later; he would have not missed SUDHABAY FAIR.....

writetorabit@rashtradoot.com



came briskly "KYA BAAT HAI SHAHIB" Sir what is the matter - I put my arms around him took him to my room and pointed my finger to the bolted bathroom. He called me to the bathroom and said someone has switched off the main line valve and the water should flow once the knob is switched on, shall I open! I told him of the night ordeal and the commotion of leaking tap subsequent plugging the tap and the main valve. The bucket was empty, BONE DRY! I was in the bathroom around midnight for at least ten minutes, located the main line valve to be relieved from the sound of PLINK PLINK PLOMP. The water is as you observe is not flowing now, then how, BEHRO! The bucket is full and the bathroom is wet showing proof of excess water drainage. Behro quietly stood, then meekly once again

asked whether he should open the mainline valve, NO, No. I will manage with the bucket water but told him not to move from the verandah till I pack my belongings. I was ready soon to fill the three small sections of the visitors book, time and date of check out, next destination and payment with remarks. The room payment rupees seven and fifty paise - remark:- "BEHRO dependable attendant, however one more person is required for the night" explained the remarks to Behro with a tip of princely rupees five; Behro was delighted and asked me when will I visit again. I did not bother to answer and concluded that Dak Bungalows were anchor for wandering officials and travellers during BRITISH rule to the most inhospitable corners of the country. A person with a sensitive hide has no right to be here, especially overnight stays. Instead



## #ENVIRONMENT

### Reducing Cow Methane



A microbial culture developed from the kangaroo faeces inhibited methane production in a cow stomach simulator.

Baby kangaroo faeces might help provide an unlikely solution to the environmental problem of cow-produced methane, according to a new study.

A microbial culture developed from the kangaroo faeces inhibited methane production in a cow stomach simulator. After researchers added the baby kangaroo culture and a known methane inhibitor to the simulated stomach, it produced acetic acid instead of methane. Unlike methane, which cattle discard as flatulence, acetic acid has benefits for cows as it aids muscle growth.

"Methane emissions from cows are a major contributor to greenhouse gases, and at the same time, people like to eat red meat," says Birgitte Ahring, professor in with the bio products, sciences, and engineering laboratory at Washington State University and corresponding author of the study in the journal Biocatalysis and Agricultural Biotechnology. "We have to find a way to mitigate this problem."

Reducing the burps and farts of methane emissions from cattle is no laughing matter. Methane is the second largest greenhouse gas contributor and is about 30 times more potent at heating up the atmosphere than carbon dioxide. More than half of the methane released to the atmosphere is thought to come from the agricultural sector, and ruminant animals, such as cattle and goats, are the most significant contributors. Furthermore, the process of producing methane requires as much as 10% of the animal's energy.

Researchers have tried changing cows' diets as well as giving them chemical inhibitors to slow methane production, but the methane-producing bacteria soon become resistant to the chemicals. They also have tried to develop vaccines, but a cow's microbiome depends on where it's eating, and there are far too many varieties of the methane-producing bacteria worldwide. The interventions can also negatively affect the animals' biological processes.

Ahring and colleagues study fermentation and anaerobic processes and had previously designed an artificial rumen, the largest stomach compartment found in ruminant animals, to simulate cow digestion.

"With many enzymes that are able to break down natural materials, rumens have 'amazing abilities,' says Ahring, who is also a professor in the School of Chemical Engineering and Bioengineering and in Biological System Engineering.

Looking to investigate how to outcompete the methane-producing bacteria in their reactor, Ahring learned that kangaroos have acetic acid-producing, instead of methane-producing, bacteria in their foregut. Her students tracked down some kangaroos, took samples, and learned that the specialized acetic acid-producing process only occurred in baby kangaroos-not in adults.



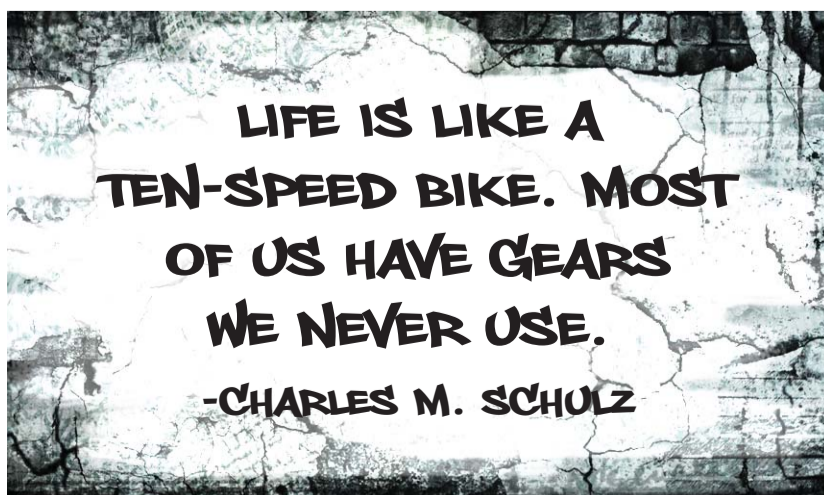
Unable to separate out specific bacteria that might be producing the acetic acid, the researchers used a stable mixed culture developed from the feces of the baby kangaroo.

After initially reducing the methane-producing bacteria in their reactor with a specialized chemical, the acetic acid bacteria were able to replace the methane-producing microbes for several months with a similar growth rate as the methane-producing microbes.

While the researchers have tested their system in the simulated rumen, they hope to try it on real cows sometime in the future.

"It is a very good culture. I have no doubt it is promising," Ahring says. "It could be really interesting to see if that culture could run for an extended period of time, so we would only have to inhibit the methane production from time to time. Then, it could actually be a practice."

## THE WALL



## BABY BLUES



By Rick Kirkman & Jerry Scott

## ZITS



By Jerry Scott & Jim Borgman