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Perception of time varies among creatures

by MARK PAVILONS

Most of us know that ?time keeps on slippin,' slippin,' slipping' into the future,? but its speed depends entirely what you are.

We humans have a pretty good grasp on the passage of time, too good, in fact. We measure our hours, minutes, days, months and years by our orbit around the sun. Our concept of time only applies here on earth and nowhere else in the universe do our minutes apply.

Some would say we're obsessed with time ? we have watches on our wrists, clocks on our smart phones, time-telling virtual voices in our homes. We check our calendars several times a day. We are always asking ourselves ?what time is it??

We walk through life, dodging this ailment and that disease, hoping to reach a ripe, old age. We are dismayed when we hear the passing of someone we know in their 50s or 60s.

Many of us are on a clock, some self-made, some imposed, where we have to get things done by a certain age. Athletes, actors and models have ?prime??years.

While most of us can work well beyond our prime or, as I?like to call it, our ?best before dates,? we still stare down the clock, the one that ticks toward retirement and slows until it eventually runs out.

The creatures we share the world with don't have a similar appreciation of time at all. In fact, most don't have a concept of it all.

I read that dogs really don't know if an hour or day has passed since you left in the morning. I imagine that's why they're always so happy to see us when we return.

Scientists believe that the way in which animals perceive the passage of time is just another aspect of evolution and survival. For example, some studies suggest that, for flies, the world appears to move approximately 7 times slower than it does for humans.

We have all engaged this enemy, only to be outmaneuvered by this bug. The reason is for them, we're moving in slow motion, so we're really easy to dodge.

Smaller animals with a faster metabolic rate, such as hummingbirds, experience events more slowly than larger-bodied animals with a slower metabolism, such as humans.

Here's the explanation for the perception of time in insects. Television, computer and movie screens flicker. To the human eye, this flickering light provides the illusion of a constant stream of images, due to the high frequencies at which these displays operate.

The rate at which this occurs is called ?flicker-fusion frequency,? which is measured by determining how rapidly a light needs to be switched on and off before it appears to an animal as a continuous stream. Scientists measure this in insects by hooking up tiny glass electrodes to the photoreceptors of its eyes and flashing light at increasingly fast speeds, all while a computer graphs the signals sent from the photoreceptors.

All animals, including humans, see the world in what's essentially a seamless movie. What's really happening, however, is that the brain is taking individual images sent from the eye at a fixed rate per second in distinct flashes and piecing them together.

The majority of flying animals have faster vision than humans ? possibly because it's mortally important that they can quickly react and dodge obstacles.

The fastest-seeing flies are blindingly quick, even relative to their own kind. A ?killer fly,? a predatory species found in Europe, is able to launch from a resting position into the air, circle several times around another fly in mid-flight, catch it, and bring its twitching body down to the ground in less than a second.

The light-detecting cells in its eyes contain more mitochondria, essentially the ?batteries? of cells, than other flies, and this powers its supercharged vision.

So, do some people experience time differently than other people?

According to Andrew Jackson, an associate professor at Trinity College Dublin in the Republic of Ireland, who has researched flicker fusion rates among various species, it may be true.

?It's tempting to think that for children time moves more slowly than it does for grownups, and there is some evidence that it might. People have shown in humans that flicker fusion frequency is related to a person's subjective perception of time, and it changes with age. It's certainly faster in children.?

It would be nice, as some have postulated, if we could turn back time, or at least slow it down a bit.

So maybe the trick here is to think like a child so we can slow things down a bit in our hectic lives.

Those gorgeous summer weekends, backyard celebrations and wonderful experiences all deserve to last forever. Well, I suppose they do in our minds at least.

Our brains are huge recording devices, constantly capturing images ??ights, sounds and smells ? in our personal archives. Science has yet to train us how to retrieve a single image or event from that massive amount of data.

But one day it may be possible to put on those nifty 3D glasses, plug ourselves into a gizmo, and take a virtual trip down memory lane. Boy would that be something!

Until that day comes, we have to take each day with a bit more cautious optimism. Take is slow, soak up all that you can, and commit it all to memory.

Remember the compliments and forget the insults.

Do what brings a smile to your face every day, whether it takes seconds or hours. Grab a tasty, frosty beverage.

Tune in to those super flies, or bumblebees or dragonflies and watch them in action. Nature is mind-boggling.

Learn how to spend time wisely. At the end of the day, be thankful you made it.