UNITARIAN UNIVERSALIST
CONGREGATION OF FREDERICK
Spirituality · Community · Justice

"Myths, Mirages, & Measuring Time"

The Rev. Dr. J. Carl Gregg

7 March 2021

frederickuu.org

Can you feel the Wheel of the Year turning?

Our UU living tradition draws from six diverse sources, including direct experience (what we know from our firsthand experience), the lived example of social justice activists, wisdom from all the world's religions, and the results of science. Additionally, our Sixth Source is "The spiritual teachings of Earth-centered traditions which celebrate the sacred circle of life and instruct us to live in harmony with the rhythms of nature." Some of my favorite practices and rituals from various Earth-centered traditions are the ones that attune us to the turning of the seasons, sometimes visually represented as the Wheel of the Year.

Although seasons can sometimes feel like they last forever, the Wheel of the Year invites us to notice the subtle shifts that— except in equatorial regions—happen approximately every six weeks. For example, even though it is still quite cold outside for many of us here in the Northern hemisphere, signs are increasingly cropping up of our inexorable approach toward spring equinox.

As you saw on that slide about the Wheel of the Year, spring equinox is known in parts of the Pagan tradition as *Ostara*, which is derived from Ēostre, the Old English name of a goddess of the returning light. Over time, Ēostre became the name of the holiday we know as Easter. And the reason we celebrate Easter with bunnies and eggs

has a whole lot more to do with ancient paganism than Christianity, but that's a sermon for another day.

For now, my point is to invite us to open our hearts and spirits in the coming days and weeks to the turning of the wheel of the year. We are slowly beginning to emerge out of the winter of our pandemic discontents. It's been a hard year of physical distancing, but vaccines are increasingly on their way. And spring is an archetypal time of dawning light, new life, new birth, and new hope — a time of increasing warmth, exuberance, dancing, and blossoming. Even as we also hold in our hearts all that remains difficult and hard, the spirituality of spring invites us to also practice wonder, amazement, and awe for all that we are nevertheless grateful for.

Next Sunday at 2:00 a.m., we will "spring forward" into Daylight saving time. We'll lose an hour of early morning sleep, but gain an hour of daylight in the evening. For what it's worth, I think messing with time twice a year is a terrible idea: the disruption to our internal clocks is not worth it. But with the approach of spring equinox and time change, it feels like an auspicious occasion to spend a few minutes reflecting on this strange phenomenon called "time" that often gets only stranger the more you study it.

As Augustine of Hippo (354-430 CE) confessed more than 1,500 years ago, **"What then is time? If no one asks me, I know what it is. If I wish to explain it to him who asks, I do not know" (Mazur 63).** Along those lines, one book that I've been reading to reflect on this slippery notion of time is *The Clock Mirage: Our Myth of Measured Time* published last year by Yale University Press and written by Joseph Mazur, a professor emeritus of mathematics at Marlboro College.

There's a lot I appreciated about Mazur's book—and I'll be sharing a few highlights with you—but I should add that if I were to recommend only one book about time, I would tell you to start with a brief, excellent, and accessible book that came out a few years ago titled The Order of Time by the contemporary physicist Carlo Rovelli (1956-). Rovelli has been described as the new Stephen Hawking. His earlier book *Seven Brief Lessons on Physics* is also great—and equally brief!

Interestingly, many linguists estimate that the word "time" is the single "most frequently used noun in the English language" (xi). That makes sense: time is central to

our experience. “When we are not asking for the time, we are speaking of saving time, killing time, serving time, keeping time, not having time, tracking time, bedtime, time outs, buying time, good times, time travel, overtime, free time, and lunchtime” (Buonomano 3). Because of how often we refer to time in a variety of contexts and usages, it remains a difficult concept to pin down. The Merriam-Webster Dictionary makes a valiant attempt, and its many entries weigh in at more than 1,700 words (xi). If I were to read aloud just that attempt to list the many definitions of time, it would take more than 10 minutes. “Time” means a lot of different things!

Honestly, it’s wild stuff. Most of you, for example, have probably heard about the identical twin thought experiment for explaining one aspect of Einstein’s theory of special relativity. If one twin stayed here on Earth while the other twin boarded a space ship traveling at extremely fast speeds, when the space-traveling twin returned home, that twin would have aged less and the twin who stayed on this planet would have aged more (Mazur 97). The reason is that ***speed*** **slows down time: the faster you travel, the slower time passes** relative to anyone moving at slower speeds (Burdick 34).

And speed isn’t the only cause of temporal relativity. Let me give you my other favorite bizarre-yet-true example: **if you are on top of a mountain, time passes just a little bit *faster*** relative to someone who is down in the valley, because gravity is comparatively weaker at a higher elevation. That’s wild to me! If we had a precise enough measuring device, we would also find that, for the same reason, “A clock placed on the floor runs a little more *slowly* than one placed on a table” (Burdick 9).

The more you think about time, the more slippery the concept becomes. Given that we’ve been exploring how factors such as speed and gravity can affect time, how might we respond to a question such as “Which clock is more accurate, the one on the floor or the one on the roof?” Well, as weird as it might seem, physicists tell us that:

> The question is meaningless. We might just as well ask what is the *most* real—the value of sterling in dollars or the value of dollars in sterling. There is no ‘truer’ value; they are two currencies which have value *relative to each other*. **There is no truer time. There are two times** [one from the clock on the floor and another from the clock on the table] **that change**

> ***relative to each other*. Neither is truer than the other…. Times are legion.** (15)

Although that may feel like we are way down the rabbit hole in *Alice in Wonderland*, it is also what science tells us is the case in this sometimes uncanny reality in which we find ourselves.

So despite all the often helpful advice from meditation teachers—including me—to be in the present moment, or as Ram Dass famously said, to "be here now," at the same time (no pun intended!), physicists such as Carlo Rovelii challenge us to consider that, in a certain sense,"'now' means nothing". ur 'present' does not extend throughout the universe. It is like a bubble around us" (37, 40).

Remember what I said earlier that the word "time" is the "most frequently used *noun* in the English language"? That may be part of what contributes to our confusion about time. In many ways, we are accustomed to thinking of the world as made up of *nouns*—what my elementary school grammar textbook defined as "people, places, or things" (86). But the universe, rather than being a **collection of isolated nouns, is really much more of a *verb*—an ongoing action, an interdependent web of arisings**. It is less accurate to think of the universe as made up of "entities and substances" than to think of the universe as consisting of "events, happenings, and processes" (87). The American inventor, systems theorist, and author Buckminster Fuller (1895 – 1983) said it this way, "I am not a thing—a noun. I seem to be a verb, an evolutionary process—an integral function of the universe."

My favorite quote along these lines is from the particle physicist Karen Barad, from her excellent—but not always easily accessible—book titled Meeting the Universe Halfway, published about fifteen years ago by Duke University Press. This quote is a little more difficult to grok, but I think it's worth sitting with over time and allowing it to sink in. In Dr. Barad's words, "**Time is not a succession of evenly spaced individual moments…. Space is not a collection of preexisting points…. Rather, spaciality is intra-actively produced**" (180-181).

Keeping in mind that int**ra**- is a prefix which means "within or inside" one group, and int**er**- is a prefix that *means between* two groups, how might we better understand

the assertion that, “Spaciality is *intra*-actively produced,” as opposed to space and time *inter*acting? Think about the difference between int*er*murals (a competition “between” teams from two rival schools) and int*ra*murals (a competition from teams “within” the same school). Or if you prefer, consider the difference between int*ra*state commerce (only *within* a state's boundaries) and int*er*state commerce (transporting goods across state lines).

As we go about our daily lives, time and space often appear to be like int*er*muruals: two quite separate things, like two teams from different schools. *Time* feels like a predictable succession of evenly-spaced individual moments, and *space* seems like another, quite different, separately predictable collection of preexisting points. But after Einstein, we know that space and time are rather more like an int*ra*mural, an interaction within the same school. Time and space are actually relative, connected, and deeply interdependent with one another—which is why scientists started combining them in one word: spacetime. And it’s really even more complex than that; it’s more like *spacetimes*—plural (Burdick 56)!

If all this is still feeling a little abstract—or perhaps even dizzying—I invite you to consider that this dynamic is really worth reflecting on, as some of you may already have done extensively. Understanding the intimate connection of spacetime can contribute to a powerful sense of what our UU Seventh Principle calls “The interdependent web of all existence of which we are a part.” In a sense, reality is one enormous int*ra*mural. In an ultimate sense, **we really are *all on the same team*, deeply interdependent with one another, the other beings and ecosystems of this planet, and with the cosmos itself.**

Now, let’s take a deep breath here because that’s a lot to ponder. And as much as I love the science of time, let me begin shifting toward my conclusion by bringing it back home to our personal senses of time. Not only is spacetime *intra*-subjective; our individual experience of time can feel quite subjective, depending on our state of mind and other related factors.

If we turn back the clock (so to speak), time used to be a lot fuzzier. For most of human history, most people tracked the time of day with a vague notion of where the sun was in the sky—or perhaps more precisely on a sundial if one was nearby (5).

Before the invention of the telephone, automobiles, or other modern devices that keep us increasingly connected across vast distances, life seemed a lot more local. Appointments couldn't be precise to the minute and second.

Don't get me wrong. There are some major advantages to how precise we can be about time today, but even in the ancient world there were laments about schedules becoming oppressive. Indeed, more than two thousand years ago, the Roman playwright Titus Plautus (c. 254 – 184 BC) proclaimed:

> The gods confound the man who first found out
> How to distinguish hours! Confound him too,
> Who in this place set-up a sun-dial,
> To cut and hack my days so wretchedly
> Into small portions— (3).

If occasionally encountering a sundial horrified Plautus, I can only imagine what he would think of the Apple Watch or similar data-driven devices that offer to measure and quantify ever more aspects of our lives in precise detail.

Again, don't get me wrong. There are real advantages to having objective, quantifiable data about yourself for a given day—as well as advantages to comparing trends over time: how long you remained seated without standing up and moving around for at least a minute, how much exercise you are getting, how many hours you are sleeping, and more. All that information can be extremely helpful—and because we know that multiple things can be true at the same time—we can also admit that such information can also be oppressive. We are human beings, not machines.

So whether or not you have formerly had a practice of taking a sabbath from technology once a week, I invite you to consider that, in addition to all the benefits of time management, carving out space and time for simply receiving the day as it comes —a day with nothing on the schedule—can be a helpful practice—a time when you can go with the flow, without having to consult your smart watch or even a sundial. I know that finding time for such a practice is easier said than done, but I am always so grateful when I give myself the chance to *receive the day* instead of always feeling the need to manage and measure my day's time.

Along those lines, I'll leave you for now with a quote from Annie Dillard's wonderful book The Writing Life. Dillard has thought extensively about the many different ways various people throughout time have attempted to create meaningful lives. The line from that book that has really stuck with me over the years is that, **"How we spend our days is, of course, how we spend our lives. What we do with this hour, and that one, is what we are doing."**

Maybe that seems obvious, but I've often found that quote to be quite powerful and focusing. I don't know what the future will bring, but I do have some influence over how I spend this hour and the next. My intentions and actions shapes the arcs of each day, accumulating over time into how I have spent my life. *"How we spend our days is, of course, how we spend our lives."* In that spirit, let us open our hearts and minds to this wild and strange spacetime in which we find ourselves, weighing how we might make the most of our time, even as we take the time to savor it.