

Time Passages

A Sermon for the Unitarian Universalist Society of Amherst

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Time Passages. Those of you of a certain era will recognize this title. Al Stewart, who also wrote *The Year of the Cat*, wrote *Time Passages* in 1978, and while it's not a great song, some of the lyrics aren't bad. *I'm not the kind to live in the past. The years run too short and the days too fast. The things you lean on are things that don't last. Well it's just now and then my line gets cast into these Time Passages. There's something back there that you left behind. Time Passages, buy me a ticket on the last train home tonight.* That's the line most people remember. Sometimes we want to go back for a while.

Sometimes I describe *my* past as "a previous life." You may have heard me say this. The one week time-share in Florida that Milt and I will be visiting later this month comes from one of those past lives. It certainly feels like some parts of my life were a long time ago; distinct periods of time, separated from the present by something momentous or horrible. I can't say as I'm hankering, as was Al Stewart, for anyone to buy *me* a ticket on the last train home to my past. I'm pretty happy here. Now. This is a good time for me.

There are so many ways in which time plays an important part in our lives, although we try to limit our time in the past, even if it was good. Remember that sermon I did called *Turn the Page*. That was about not spending too much time over-analyzing our lives. We also try not to dwell too much in the future, wishing our life away. In our spiritual considerations we often emphasize "being in the present moment," avoiding what Wendell Berry calls "forethought of grief:" I will be so sad when.... Or I am afraid of being in pain..... But it does seem as if we should pay attention to what the world will be like for future generations. A little forethought can go a long way! We can't *just* be in the moment. As in many things it seems that moderation is the answer – not too much in the past or the future, but not completely oblivious to them, either.

It's at the natural stops and starts of our human-designed time-measuring system that we think the most about time. Howard Thurman, in his wonderful collection called *Meditations of the Heart*, talks about celebrating the New Year: "There is something which seems utterly final about the end of a year. [But] because life is dynamic and we are deeply alive, the end of the year can mean only the end of the year, not the end of life, not the end of us, not even the end of time. We turn our faces toward the year being born with a riding hope that will carry us into the days ahead with courage and with confidence. The old year dies; the new year is being born – Long live Life!"

We can talk "about" time, but trying to define it is another matter. In the Hindu religion, time is considered the source of all things and the eventual destroyer of all things, as well. Aristotle defined time as the numbering of motion with respect to before and after. On the ground that every "now" implies a "before," he concluded that time had no beginning.

Modern day Stephen Hawking disagrees. He says anything before the Big Bang is irrelevant, so let's just say time began with the Big Bang. Einstein made time the fourth dimension of the space-time continuum. And St. Augustine confessed that he knew best what time is only when no one asked. I think I know what he meant! (Facts from The Dictionary of Philosophy and Religion, William Reese, p. 772-73)

Time is a major subject of science, philosophy, art, astronomy, and economics. According to the Oxford English Corpus, the word 'time' comes at the top of the list of most common nouns in the English language. It is derived from the Latin *tempus*, which in turn came from a Greek word meaning "to cut" or to divide the flowing duration.

The origins of our current measurement system go back over 4000 years ago to the Sumerian civilization in what we now call the Middle East. They developed the Sumerian Sexagesimal System based on the number 60. Sixty seconds in a minute, sixty minutes in an hour, and sixty times six days in a year: 360. The number 12 was also important, with 12 hours of day, 12 of night, and roughly 12 months to the year.

Did you know the study of devices used to measure time is called horology? The earliest devices were sundials which used shadows to mark the passing day, but these were inaccurate unless calibrated for the appropriate latitude. The only for sure time was Noontime – the shortest shadow of the day. The most accurate timepieces of the ancient world were waterclocks, first developed in Egypt. There was one found in a pharaoh's tomb. Plato is said to have invented a water-based alarm clock that worked by gradually floating a container holding lead balls until the container tipped over and the balls fell onto a copper platter. The resultant clangor would wake up the students at his Academy – this was in 378 BCE. The English word clock comes from the French, Latin and German words that mean bell.

The most accurate current timekeeping device is the atomic clock, which is used to calibrate other devices. A 'second' is defined as *the duration of 9,192,631,770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom.* (wikipedia.org/wiki/Time) Previous to 1967 they just divided the actual time it took to go around the sun by the number of seconds in 365 days. Perhaps that's why so many ancient sacred places had something to do with noting the exact moment of the spring or fall equinox. How else would you measure one exact trip around a burning star?

The accurate measurement of time is so critical to the functioning of modern societies that it is coordinated at an international level. If only we could have so much cooperation in other matters of our global society. This requirement for exactness necessarily means that science plays an important part in our understanding and treatment of time. But philosophers have also been writing about time at least as long as humans have been measuring it. 4600 years ago, Ptahhotep said *Do not lessen the time of following desire, for the wasting of time is an abomination to the spirit.* (wiki/Time)

The Hebrew Bible book of Ecclesiastes contains this thoughtful and familiar passage about time as the medium for the events of our lives: *There is an appointed time for everything. And there is a time for every event under heaven – A time to give birth, and a time to die; A time to plant, and a time to uproot what is planted. A time to kill, and a time to heal; A time to tear down, and a time to build up. A time to weep, and a time to laugh; A time to mourn, and a time to dance. A time to throw stones, and a time to gather stones; A time to embrace, and a time to shun embracing; A time to search, and a time to give up as lost; A time to keep, and a time to throw away. A time to tear apart, and a time to sew together; A time to be silent, and a time to speak. A time to love, and a time to hate; A time for war, and a time for peace.* (Ecclesiastes 3:1-8) These are timeless words (no pun intended) that will always have meaning for human beings.

Time is what we all want more of.

But, and here's where it gets tricky, if we are to believe many scientists and philosophers through the ages, there is no such thing as the linear time we think we live in. As early as the 5th century, BCE, Antiphon the Sophist, in his work entitled Truth, wrote that *Time is not a reality, but [merely] a concept or a measure.* Time is a product of human perception only, an illusion. Modern day physics points to the same thing.

In the conventional view of time, we divide it into three parts: the past, the present, and the future. Our language and our world revolve around these fundamental distinctions, and we would be rather lost without them.

But in the current mainstream scientific and philosophical understanding of time, called the Block Universe Model, time neither passes nor flows. No moment in time has any special status. Modern physics views the curvature of spacetime around an object as much a feature of that object as its mass and volume. According to theories of relativity, there is no such thing as absolute simultaneity (that is, two things happening at exactly the same time), and if there is no absolute simultaneity, then there can be no objectivity about whether a particular event is in the present or the past.

This is all very difficult to understand, but part of it has to do with the fact that the concept of time depends on the special reference frame of the observer(s), and human perception as well as the measurement by instruments such as clocks are different for observers in relative motion to each other and the event. Are you getting this?

I know these are really abstract ideas, but I sometimes put them into my sermons because I think it is good to know that there are ideas beyond our grasp. Or at least the grasp of most of us! It's good to at least have an inkling of ideas and understandings that do affect our world, whether we are aware of them in our everyday lives or not. The illusion of time is so real for us that to imagine that the past, the present and the future are existing at the same time is beyond our comprehension.

And I'm fine with that. The bottom line is that living in our illusory/real world demands good old fashioned time-lines. I'll stick with my yesterday, today, and tomorrow, thank you.

There is one interesting aspect to the Block Universe view of time. Actually there are many, but here is one that I think we can wrap our minds around. "If the block universe view is correct, [we must logically conclude that it is] irrational to fear death. We fear death because we believe that we will no longer exist after we die. But according to the block universe view, it's not true to say that we exist now, but won't exist any longer after death. Death is just one of our temporal borders, and should be no more worrisome than birth!" (Feb. 5, 2003 lecture by Bryn Mawr Philosophy professor, Cheryl Chen) This makes the expressions "passing over" or "passing on" seem more reasonable. But I still can't buy into concepts of Heaven or Hell.

In general though, if scientists were to convince us to abandon our past/present/future orientations, just about everything we do would cease to make any sense at all! Living in the real world requires certain compromises with the physicists. Or perhaps I should say, living in what we *perceive* as the real world requires certain compromises. It's all just an illusion, just like time.

But for the here and now, Sunday, January 7, 2007, with 55 years of memories in my mind with which to write these sermons, and with hopes of many more future years with you here in Amherst, I want to wish you a Happy New Year.

The scientists would say that makes no sense, but to heck with the physicists. Sorry Dad.

Happy New Year!