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### **Feeling the Effects of Time**



Last Sunday, many churchgoers noticed that some of their fellow congregants seemed a bit grumpy or distracted, which was perhaps surprising given that the time change the night before as most of the nation moved from Daylight Saving Time to Standard Time made it possible for people to get an extra hour of sleep. It's a well-known fact that changing the time twice a year by one hour -- "fall back in the fall and spring ahead in the spring" is how we usually remember which way to adjust our clocks -- messes with us to varying degrees. Even though the change in the fall makes that extra hour for sleeping available, for most of us, our bodies are still running on the previous schedule and we wake up as though the extra hour wasn't there.

But other things seem out of kilter too. For example, we may notice our stomach rumbling and look at a clock or our phone, to see that it's only 3:45 in the afternoon. And then we remember: "Oh yeah. This time yesterday it was 4:45 and we were getting ready for supper."

For many people, the twice yearly time change brings only temporary inconvenience and after a few days or a week or so, we've adjusted -- only to have to do it all again in the spring, when we actually lose an hour of sleep.

But for some people, the time change, especially the one in the autumn, has a greater impact. People with seasonal affective disorder (SAD), a type of depression that occurs as daylight hours decrease in the fall, find the early darkness wearying. And even people not afflicted with the disorder find their internal daily "clock" -- their circadian rhythm -- disrupted. Circadian rhythm refers to the physical, mental, emotional and behavioral changes, and the sleep-wake cycle that all follow a 24-hour pattern.

On the other hand, some sleep doctors say that Daylight Time puts us out of sync with body rhythms tuned to the earth's rotation, and is more disruptive of sleep than the time change itself. They say the sleep disruption during Daylight Time makes us more prone to heart disease and stroke.

Whatever the reality, when we return to Daylight Time next spring, we may stay there. The U.S. Senate passed the Sunshine Protection Act in March. The House has not taken it up yet, but if the bill also passes there, and the president signs it, the act would put the nation permanently on Daylight Time. And since the Senate vote was unanimous, there's a good likelihood it will succeed in the House.

Aside from how the time changes affect our bodies, observers point out that when extending Daylight Time was previously tried, it resulted in more roadway accidents in the morning since the extra daylight in the winter comes in the afternoon rather than in the morning. On the other hand, a 2015 Brookings report found that robberies dropped by 27% during the afternoon hour that had extra daylight.

In the fourth century B.C., a man named Androsthenes, who was a scribe to Alexander the Great, traveled with Alexander and his army to India. While on that march, Androsthenes noted that the leaves of certain trees opened during the day and closed at night, and he made notes about that in his records of the military campaign. Of course, he didn't know why that happened, but science has since explained the mechanisms involved. In some plants, the opening and closing of leaves are brought about by fluids moving in special joints called pulvini. In other plants, such as tomatoes and cotton, movement is caused by alternating growth of the upper and lower part of the leaves.

Scientists call these changes that repeat in 24-hour cycles "circadian rhythms," and they speak of plants as having "biological clocks." Researchers have since concluded that such cycles are not limited to plants. In fact, in 1999, a team of Massachusetts General Hospital scientists discovered that the same genetic machinery that controls the inner movements of the plant clock may drive the basic rhythms of the human body -- the rise and fall of body temperature, blood pressure, hormones and the sleep-wake cycle. One possible benefit of such research may be help for people who have trouble sleeping. And it may explain why some of us have a harder time adjusting when we go from Daylight Time to Standard Time and/or vice versa.

But research aside, most of us already have a pretty good idea that our energy does cycle throughout each day. When we talk about being a "morning person" or a "night person," we are referring to our own circadian rhythms, times when our energy peaks or plummets.

And morning and night are not the only energy hills and valleys in a 24-hour period. Lots of us have a low-energy time in the hour right after lunch or right before supper. **END**.

#### Warming Up:

1. If it were up to you, would you prefer to always be on Standard Time, always be on Daylight Time or keep things as they are currently with Standard Time and Daylight Time each having part of the year? Why?

2. In what ways do you benefit from earlier daylight in the morning? In what ways do you benefit from extended daylight in the evening?

3. Do you find it easier to love your obnoxious neighbor or acquaintance at one time of day versus another? If so, why do you think that is?

#### Read Joshua 10:6-15

According to this passage, God fought for Israel using hail and extending daylight. We are not sure how this was done, or if this was somehow hyperbolic language – but the line that says this was never done and would never be done again implies a miracle.

#### **Questions:**

Has time ever seemed to "stand still" for you? Have you ever wished it would?

When has God seemed to answer a prayer for you in a miraculous way?

#### **Read John 1:19-43**

John records a three day period in which Jesus goes about talking with those who would follow Him as He begins His public ministry. We tend to forget to notice details of time in Biblical stories, but here John seems to be using time to specifically. (John's use of time markers is often important, and just as often frustrating due to his odd sense of chronology.)

#### **Questions:**

The disciples come to Jesus at "the tenth hour" or at about 4pm. What difference does knowing this timing make in your reading of the text?

What does the time of day have to do with your prayer or devotional life? What happens in your energetic times vs. your "slump" times?

#### Read 2 Samuel 11:1-5

We read the story of David and Bathsheeba again, noticing the time markers.

#### **Question:**

What do the time markers in this story (calendar time, day time) tell us in this story?

What does the time of day or year have to do with your willingness to battle against temptation?

#### Read Psalm 42

The Psalmist may be writing a psalm here meant as a "bedtime prayer" or a prayer meant to be prayed at the end of the day.

#### **Question:**

How do you or how might you end your days with God?

Sometimes our lives travel in cycles like the ones mentioned in the Psalm. Sometimes those cycles last for seasons instead of days. Dietrich Bonhoeffer wrote once from prison saying "I am going through another spell of finding it difficult to read the Bible. I never know what to make of it. I don't feel guilty at all about it, and I know it won't be long before I return to it again with renewed zest." --- What do you do in times of difficulty?

#### **Extending our time or moving on?**

This marks the 6<sup>th</sup> week of our "In the News" study and we have some choices. Since the news will continue to arrive, we can continue with this series, or we can "spring ahead" to another topic. Like Congress, the choice is before us:

a.) We can continue for two to four weeks.

b.) We can wrap up here, have "Stump the Pastor" next week and decide on a new study then.