

# A Student Perspective on How to Lengthen Your Time: A Practical Reasoning

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## The Experience

Over a double espresso and eggs Benedict at a neighborhood eatery, we lamented how there didn't seem to be enough time to accomplish all we needed to do, and that the lack of time became more acute with each passing year. Specifically, my fellow graduate students in medicine, claimed that time seemed to speed up as they aged. I had noticed the same phenomenon, and a cursory search of the web shows the perception is almost universal.

After a quick and amateurish attempt to incorporate Albert Einstein's insight that time either speeds up or slows down according to the relative speed between two objects, we focused on a more practical, and initially mathematical, approach to the question. Besides, without an almost-the-speed-of-light rocket ship at our disposal for experimentation, only unproven testimonials supported Albert's claim.

## Ratio of Life Lived

A child lives 20% of his life from his fourth to his fifth birthday. That is an incredible amount of experience to fit into just one year. The child's fifty-year old parent lives a tiny 2% of his life in the same year, and his 83-year old grandmother lives just 1.2% of her life in that time. When one year is a large percentage of our existence, time appears to move slowly? When one year is but a drop in the bucket of life, time flies.

But this phenomenon, while seemingly plausible at first glance, applies more to youth perception than aged perception. The power-law nature of the ratio of life lived curve shows that time accelerates fast in the younger years (no argument there), and then accelerates almost imperceptibly after the age of 50. This may be because we relate time to experiences when young; as Einstein suggested, time is relative – the movement of one object (a Birthday) relative to another (a sleepover). When older, time is a function of both experiences, and time remaining. Actuarial tables come in handy at this point.

## Ratio of Life Left to Live

The urgency of the bucket list (what one wants to accomplish before "kicking the bucket") is a function of time remaining, not time lived. The following chart is probably more representative of the perception amongst post mid-lifers that time accelerates as we age. As the time to expiry (what euphemism would you expect from an options trader) shortens, each year represents a greater percentage of our remaining time on the planet. There is insufficient time to accomplish all that we wish and time appears to accelerate.

As the life expectancy of a country increases, often due to better medical care, greater wealth, more social services and lower fertility, the acceleration of time, with age, decreases. The Japanese are renowned for their longevity and most likely perceive slower twilight

life speed than the Chinese and Indians, though the latter two nations are rapidly catching up.

## New and Anticipated Experiences

While the previous two curves help us to understand youth perception of time (percent of life lived) and adult perception of time (percent of life to live), a reasonable argument can be made that new or anticipated life experiences play a more important role in framing our perception of the acceleration of time. Something new or anticipated is memorable. Something routine, boring or deplored is forgettable.

We perceive the time between new or anticipated (memorable) experiences as constant, and these experiences form memory markers in our mind. Our perception of time is a function of the number of memory markers, not the length of time between them.

A new experience would entail riding a bicycle or surfing a wave for the first time, meeting new people (who are fun, interesting characters), travelling to a dream destination, getting a radical hairstyle, newly discovering a classic author, drinking a bottle of '47 Cheval Blanc, going to the opera for the first time, performing in front of an audience, flying a plane or having a baby.

An anticipated experience is one that we look forward to with great expectation and pleasure. It does not involve much effort on our part. A child can't wait for her birthday party, summer vacation, or opening gifts at a festive occasion.

When young, a festive celebration means gifts, food, fantasy and relatives. Children receive the majority of the gifts, eat mounds of food (much of it sweet), are enchanted by the fantasy of the occasion and are fawned over by the relatives (yes, more gifts).

Forty years later, you buy the gifts, cook the food, feel guilty about perpetuating a false fantasy, entertain the relatives and afterwards clean up and pay the bills. The occasion has not changed, but the experience has morphed from the realization of an eager anticipation to the execution of a routine and labor-intensive event. For the youth, time seems to stand still as the anticipated event takes forever to arrive. For the adult, obligations of the event pile up and do not afford a moments rest. Time flies.

## It's When You Feel More Alive

A paper titled "Human Brain Measures Time by Observing Movements" suggests that our brain is extremely optimized and avoids doing the same work twice.<sup>1</sup> Since the average adult has between 40,000 and 60,000 thoughts per day, we would go nuts trying to process everything. The article says that "when you live an experience [for] the first time, it [your brain] devotes many resources to understanding what is

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happening. It's when you feel more alive. As the same experience repeats itself, it will simply put responses in automatic mode and 'erase' duplicate [experiences]."

As we age, we naturally encounter fewer and fewer new experiences, and are preoccupied with forgettable routines and obligations. Those memory markers – new and anticipated events – become more spaced out. Since we do not recognize the amount of time between memory markers (just that there is time), our perception of time becomes a function of the number of memory markers in a year. When we reflect upon a year with many memories, we perceive time as immense. A year with few memories just zips by.

### Financial Markets

Does any of this relate to financial markets or economics? Absolutely. Think of rising markets, increasing leverage, new jobs, business

opportunities, risky ventures and all of the accompanying wining, dining and celebration as new or anticipated experiences. "It's when you feel alive." What much of the Western world is going through now (and the emerging world fears) is slower growth, fewer jobs, reduced leverage, increased regulation, no risk (large piles of idle corporate cash) and too much austerity. It's when you feel least alive.

The cure? Do something completely new, outlandish, risky and uncharacteristic. Surprise your friends in a manner he least expects, experiment with a new restaurant, do something charitable, spend more time with your children, learn to play the guitar, write a letter to the editor, take on more risk, vary your gold positions between short and long, start a business, look for a new job, invest in a foreign country and go crazy at your company party. Live large, increase your store of memorable experiences and slow down the acceleration of time as you age.

## References

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