

The Time of Your Life

If time is so valuable, why are you so unaware of it?

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Fruit flies come to wasted fruit, like time flies from wasted time.

We all have the experience of being aware while we're awake. We feel that we're self-aware almost all of our waking lives. Sometimes we space out, but even then we feel that we were present somewhere, even if we were in our own world.

Most likely you're only here half the time, depending on the situation. The most dramatic example that we're familiar with is doing something that doesn't require our reasoning mind, and driving comes to mind.

In almost every case, while you feel yourself to be aware while driving, you can remember almost nothing about the drive. You may remember a few notable sights, events, or ideas but it is often the case that you can't recall much. This is common and we give it little thought. We tell ourselves, if we

even bother to think about it, that there were better things to think about then, and more useful things to remember now. We assume that we were aware during our drive, but we choose not to dwell on it.

The truth seems to be that very little of us is present during events where we act automatically. Our sense of self is a deception. We have little sense of time. Like a tablecloth, time lays over our experience creating an even texture of highs and lows: it provides the perception of peaks of high attention and valleys of scant attention. The truth is that there is little of us engaged in self-awareness at any moment.

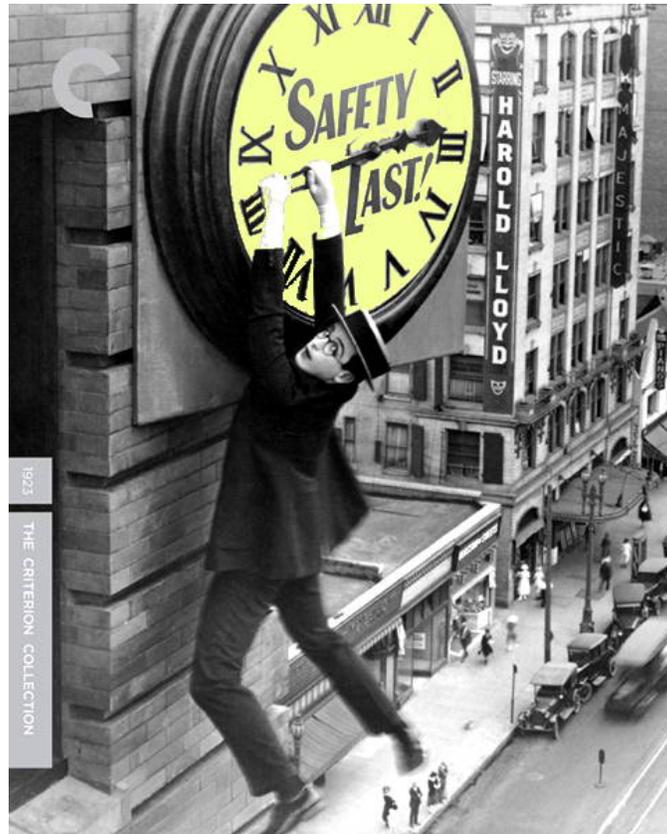


Keeping Time

There are several ways to look at this. The most common way is that this doesn't matter. We are as present as we are, and that's the end of it. One might even claim that if we were more present we'd quickly become exhausted. This might be true, but if it is, then it reflects more on what we're used to than what we're capable of.

I look at this from a subtle perspective. I explore my thinking and that of my clients. I watch brainwaves and I've gained some ability to sense my own frequency of awareness. It's an indirect thing similar to watching the scenery. I make an effort to keep track of how much I feel is happening and to keep a tally of how aware I am as the day goes by.

This is not “the power of now,” such as many are enamored with. “The Now” is whatever is happening now, which may be a lot or nothing. If you are too narrowly focused on “the now” then you’re watching a window of time that more reflects your awareness of what’s around you rather than your awareness of what’s inside you. This can add up to a lot or it can add up to nothing. Being in “the now” is looking at the beans without counting them.



What’s Happening

Perception and awareness are exclusive: you can’t do both at the same time. That’s because it takes time to convert what you perceive into what you’re aware of. You might think that we’ve got different systems that act at the same time: the eyes perceive and the brain reflects all in a continuous stream, but does not seem to be the case.

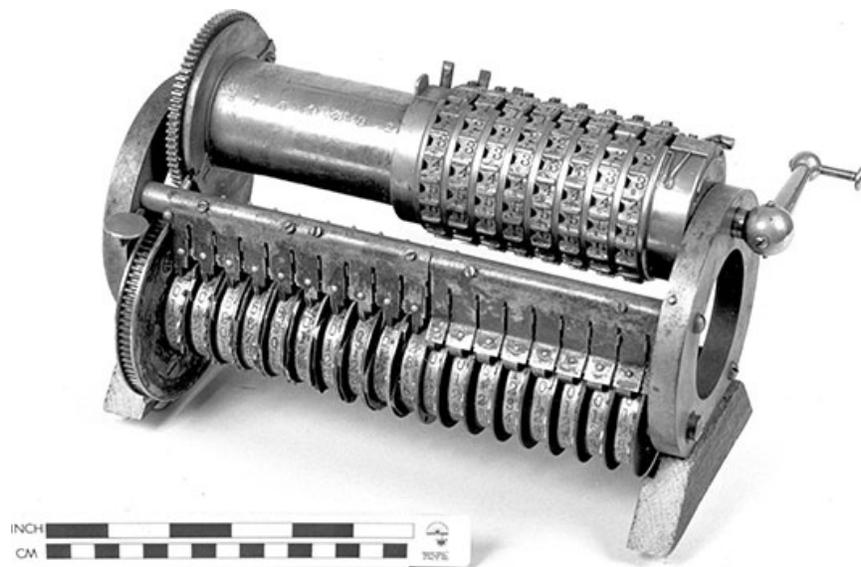
What happens instead is more like digestion: there are waves of input, consideration, interpretation, and reaction. Some things are done in sequence, such as receiving stimulation from our senses. But the consideration, interpretation, and reaction parts are all done in our brain, or somewhere in our nervous system, and that system does not have separate mechanisms for every single input.

Our brain distributes the task of self-awareness and produces various forms of cognition for selected events. It does a kind of task sharing in which different elements of awareness are prepared at different rates, with the more important ones getting higher priority, and then it puts these back together in time

for our consideration. Experience is like a horse race in which we're constantly moving back and forth from watching the race to changing our bets

Experience is like the kitchen of a busy restaurant preparing many meals at once. Different parts of different dishes are cooked at different stations, some in sequence and some in parallel. Some components are prepared ahead of time, others are done just in time. The components are assembled and the dish—which represents our whole perception of something and not just bits and pieces—is delivered to the customer who, in this case, is some aspect of ourselves that is “hungry” for action.

The time between ordering our meal—that is, encountering the situation that needs our response—and receiving our order can vary from minutes to microseconds. In some cases, we have to sleep on it. There are some problems I've been working on all my life, and you've got these too. In fact, much of who you are constitutes a dish that may never be finished cooking.



Who's Counting?

As in the kitchen metaphor, managing your world requires coordination. A kitchen isn't dominated by managers with stopwatches only because those who work there have learned to manage themselves. The kitchen is run with precision timing. It comes with experience and becomes part of the skill of cooking. But even though no one in the kitchen is holding a stopwatch, there are stopwatches ticking everywhere inside people's heads.

Your head is filled with stopwatches too. They are your brainwaves, and there are different waves to coordinate different tasks. The clock speed of your visual cortex is 8 to 12 cycles per second, which is rather slow, if you think about it. This is not the speed of your discrimination, which is faster than this. It is rather the basic length of the “measure” counted by the metronome in your visual cortex. Electrical waves sweep over your visual cortex causing your cell membranes to be cyclically receptive to changes at this frequency. You might compare this with the boiling of pasta, which happens over the course of minutes.

The clock speed of your motor cortex is 12 to 14 cycles per second, and the clock speed of your auditory perception is higher still. You might compare this with the braising of meat or vegetables, which occurs over ten-second time spans. These clocks, which we can see in our brainwaves, are not the speeds of our action, but they are the metronomes that synchronize our action. Just as in music, the tempo can be different from the length of the measure, but the measure keeps the beat.

As in music, you can speed things up or slow them down, but only to a point. You can learn to act and think more quickly, or be more relaxed and think at a slower pace. Beyond some point, it doesn't work. If you tune your speed down too low some things just won't cook right. Slow your brainwaves down enough and you'll fall asleep.

Amphetamines will raise your brainwave frequencies, and that will make you more engaged and process smaller things and execute brain processes faster. You can do this with a computer too: you can goose-up a computer's clock speed and, as a result, get improved performance. This comes at a cost. In a computer, a faster clock generates more heat and, with overheating, you'll burn out the motherboard.

People overheat too, but it's not the heat that causes problems, it's the discomfort of continuous rapid response. This generates irritation that can lead to anxiety and rage. These are high energy states that raise your pulse, trigger your hormones, and sap your strength. Sufficiently stimulated and you go berserk.



The fact remains that if you boost your clock speeds you'll accomplish more, remember more, and have an expanded sense of time. You will have more time in your life. Here's the challenge: can you be more aware without expending more energy? I'm not asking whether you want to; I'm asking whether you're able to.

Flying Cars

Flying cars are right around the corner, so to speak. The technology is almost here, but you're not going to be driving one. That's because you don't have the neural hardware for that kind of activity. Our brainwaves are not fast enough; they only go up to 60 to 100 cycles per second at the most. You can become more adept, but it will cost you in terms of energy and personality.

Birds have the required brainpower. Their brainwaves go up to 300 cycles per second. They have special visual processing that's much faster than ours. Just watch songbirds at a feeder, or hummingbirds, in order to get a sense of just how much faster their response time is than ours. They can fly through foliage at 30 miles per hour without hitting a leaf.

If you train as a pilot, you'll learn to boost and manage faster brainwaves, but that still won't be fast enough to fly cars in the numbers and the speeds commuters will require. A highway of cars flying next to each other at 200 miles per hour is more than humans are built to handle.

We'll be flying in cars soon enough, but they'll be autonomous cars: they'll pilot themselves. It's easier to design an autonomous airborne car than one that drives on land because the only thing you need to watch for in the air is other flying objects. Remote sensing can do that.



The Hands of Time

I actually don't much care how you spend your time. You can waste it, if you want. My purpose in writing this piece has nothing to do with what you choose to do. While it's true that you can become more aware by modulating your various clock speeds, but I'm more interested in you in theory.

It's an active issue in computational neurology, but I'm betting that your nervous system eats time in discrete bites. Different parts of our nervous system take bites of different sizes—of time that is—and we're only really aware of our biting off pieces and not the time it takes to chew them. Similar discrete time theories can be found in ancient Buddhist texts.

Imagine strobe lights illuminating the temporal landscape with a lot of flashes. Each of these flashes only illuminates a part of the landscape and not the whole of it. Some of these flash faster and others flash slower. What would your eye perceive?

Your eye, which has a narrow field of view to begin with and a rather slow latency in registering changes, would see your field of view as continuously illuminated. But how much of what's out there would you really be seeing? Not much.

How much is not much? Almost nothing. You would hardly be aware of any duration between flashes. You would be seeing momentary flashes and you would be processing them all rather slowly. You'd only be interacting with things that change slow enough for you to follow. You will not be piloting a flying car any sooner than you'll be hurtling along a country road at 200 miles per hour, or you'll be catching flying bullets in midair.

Your brain takes a snapshot. You process it, and then you go back for another. You hope that you can fill in the gaps with a continuous sense of change because you need to perceive the direction of things. That sense is what you use to predict where things will be next. If you can't do that, then you'll be caught flat-footed. Similarly, you struggle to feel continuity in a movie whose images are presented too slowly.

My point is that your reality—all of our realities—is like a mechanical clock. We “tick” along. The ticks are rather brief, around a tenth of a second for most of our functions, and between these ticks we're “thinking about it.” Which is to say, our brain is somewhere else and we're on automatic pilot.

When someone jumps out of nowhere and demands an answer, what do you do? You say, “What?” What if the universe jumped out at you and demanded that you account for where you've been for the last nine tenths of a second? You'd say, “What?”

Try being aware of your surroundings every second. Try being in “the now” every second, continuously for a minute. It's exhausting but it's good exercise in practicing what's ridiculous. With practice, you'll stop caring.

I would guess that for the most part you're here half the time, and I think that's generous. That is, if you live to be 90, then you've amassed about 45 years of awareness. Except, you slept for one third of the time, so that means you were only half awake for 60 years, which cuts it down to 30. That is what we perceive, and we find that perfectly natural.

Some people need more and they struggle to get it. Speed yourself up with amphetamines and your teeth will fall out. Expand your mind with hard drugs and you may be dead before you're 40. These seem like poor solutions to the problem of leading a larger life, you cannot dismiss them. There is an undeniable attraction to living more fully, and, for some people, whatever the cost is worth it.

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