The Time of Your Life

Robert Rosenbaum, Ph.D.

You are the time of your life. Consequently, psychotherapy is neither long nor short, unless we make it so.

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I was originally trained psychoanalytically, and thought therapy requires years. Then I worked in community mental health clinics and started learning brief psychodynamic psychotherapies; one model used 40 sessions, another worked with 20 sessions. Subsequently I learned two models of time-limited dynamic psychotherapy where the number was fixed at 12 sessions to activate existential themes of loss and separation.

When I started working at Kaiser-Permanente it seemed many clients got better even in six or eight sessions. Learning hypnosis and strategic therapies seemed to often be effective in even fewer sessions. Finally, Moshe Talmon came to me and invited me to join him and Michael Hoyt in a new project: investigating single session therapies. I agreed but inwardly protested: "Come on, *single sessions*? Not possible!"

The next weekend, while hiking in the Sierra Nevada, I looked at the mountains and mused: "People might get a little better in a few sessions of therapy, but there's no way fundamental change can take place quickly. People are like these mountains; their psychological structures have to change slowly just as the mountains change, by the gradual erosion of wind and rain."

At that moment I rounded a corner of the trail and found the path blocked. It had been overrun by a massive avalanche that winter. The entire face of the mountain had been transformed in a few seconds.

I looked up at the sky and said "OK, OK, I get the message…"

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But I didn't really get the message. I still thought change takes time. I hadn't yet change *is* time, and pivotal moments transcend both time and timelessness in the eternal here and now.

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Everyone knows subjective time varies according to the quality of an experience. Pleasures seem all too short; pains seem all too long. We think these time spans are somehow less "real" than the time measured by clocks. Why? Our body-mind and mechanical timepieces are different measurement instruments, but neither has a monopoly on the truth. The "feel" of an experience, though, is more intimate and, ultimately, matters more to us than the tick-tock of gears linked to an expanding spring or a swinging pendulum. Modern clocks synchronize with the decay of a cesium atom in the computer servers of the National Institute of Standards and Technology, but the decay of the cells of our body provides the most inexorable measure of our life-and-death.

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Time "keeping" is simply a matter of counting cycles or units of time. A clock is what does the counting. We have many different body clocks, each counting a different cycle. While we live, our cells are constantly dying and being replenished. Each cell in our body has a mitotic "clock" that keeps track of cell divisions and when cells will stop dividing.

How old are you? You replace all your skin cells roughly every two weeks and all your red blood cells every four months or so, but the cells in your liver take somewhere over a year (roughly 300 to 500 days) to regenerate the entire organ. Your entire skeleton is replaced every 10 years; the average age of most of your muscles (but not the heart) is roughly 15 years. So when someone asks you how old you are, the answer depends on whether they are asking about your feeling comfortable in your skin, having a glass of wine, or lifting a heavy load. Chronological years may not be the most relevant measure of how you spend your time. Perhaps you are young enough to play a game of chess with your children but too old to accompany them to the climbing gym.

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The very question "how old are you?" is prejudiced: it assumes time has a fixed metric, but the metric varies from culture to culture. Traditional Chinese measure a person's age starting with conception: in that view, you may be one year "older" than you think you are. Some cultures don't start measuring a person's age until they survive childhood and become adults in a welcoming ritual; other cultures dispense entirely with keeping track of birthdays.

Within our own culture, our age may obscure the existential reality of our lifespan: Norman Fischer points out that when you are sixty, it may seem three-quarters of your life expectancy has elapsed as measured by years, but since older

people perceive time as slipping by two or three times faster than young people (two months until Christmas seems like aeons to a first grader but like an eyeblink to a septuagenarian), at "sixty" you may have only 10% of your life left when you measure by experiential time.

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A corollary for psychotherapists: a child is not a half-grown woman. A wise crone is not a decayed adult woman. Each is complete in herself.

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A thirty-eight year old woman came to therapy concerned she might be vulnerable to a relapse of anorexia and bulimia, which she had struggled with while a teenager learning ballet. She had stopped dancing after marrying and having two young children. Now they were both attending school, and she had begun ballet lessons again to provide herself an enjoyable exercise. But she found herself looking at the lithe teens and slender twenty-somethings in the class and started feeling larger and older. She said: "how can I be willowy like them when I am a grown woman in a grown woman's body?"

I said to her, "Yes, you've grown up and matured. What does it feel like to be a grown woman in a grown woman's body?"

A look of pleased surprise resulted in a change of posture, facial expression and emotional tone. "I *am* a grown woman!" she said. "And I'm happy! I don't need to worry about being an anguished teenage anorexic."

She had a successful outcome with a single session of psychotherapy.

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Life is not merely linear. It is also composed of cycles -- and it is cycles that clocks count. Our body temperature, blood pressure, GI tract activity, muscle coordination, mental efficiency, cortisol levels and melatonin secretion all vary according to a 24 hour cycle. More remarkably, this is true even on the cellular level: every single cell has periods of rest and activity tied to a roughly 24 hour cycle, and this is observable even if you take the cells out of the body and place them in a petri dish.

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It is a bit misleading, though, to say that circadian rhythms function on a 24 hour cycle, because days are not 24 hours long. Days are not 24 hours long; because the earth wobbles on its axis, it is eccentric in its orbit around the sun and oblique in its ecliptic, the length of the day can be as much as 16 minutes longer or 14 minutes shorter than 24 hours. The equation of time (see graph, Fig. 1 below) is the difference, over the course of a year, between time as read from a sundial and a clock measuring the 1,440 minutes a day "should" take.

--- Fig. 1 about here ---

Hours, minutes, days - convenient conventions, but don't mistake them for invariable constants. The 24 hours of our circadian cycles are variable rather than constant: our biological periods reset themselves to the earth's rotation. Research has found variation of about ± 16 minutes in the duration of our circadian rhythms, in close accord with the amount of variation in the length of the days over the course of a year.

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The alternation of light and dark is an important signal to the body for maintaining and re-setting the pulse of our circadian rhythms. Psychotherapy is one process by which we adjust the balance of our existential light and darkness: our sorrows and joys, our bright clarity of purpose throwing long shadows over our souls.

Perhaps this is why our emotional lives affect our sleep and our guts along with many other body functions -- and why alterations in these body functions affect our psychological states as well as our body clocks.

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Our perception of time varies widely because the brain has several different ways of marking time. The cerebellum helps time and coordinate motor movements; the lateral intraparietal lobe seems to monitor elapsed time intervals of moderate duration. The suprachiasmatic nucleus regulates circadian rhythms in response to light and dark registered by the optic nerve but also functions independently, regulated by gene activity, GABA (gamma-aminobutyric acid) and vasoactive intestinal polypeptides; there are connections with the pineal gland and melatonin secretion.

The brain also has an interval timer: when an event impinges on our neural

circuits, within the basal ganglia cortical cells fire in unison and a signal is sent from the substantia nigra to the striatum, creating a "time stamp" for the pattern's onset. At the end of the pattern, another signal is sent from the striatum to the thalamus to the cortex. This allows us to mark spans of time ranging from seconds to hours, but although it is possible to train the brain's interval timer, its accuracy when compared to mechanical clocks is quite variable, diverging by anywhere from 5% to 60% from clock time.

People vary in the accuracy of their ability to judge time intervals, and this appears to be at least partially influenced by genetics. But no matter your skill in estimating clock time, it is subject to large changes depending on the state of your biochemistry. Time perception is influenced by the availability of the neurotransmitter dopamine; marijuana lowers dopamine availability and "slows" time, while stimulants increase dopamine availability and time seems to speed up. Thus from a neuropsychological standpoint, time is not a "what" but multiple "hows:" we keep track and coordinate the movement of our life and its surroundings.

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Time "keeping" is simply a matter of counting cycles or units of time. A clock is what does the counting. We use them to coordinate our schedules. But if you synchronize clocks, they will not stay that way for long. Physics informs us it is impossible for even two clocks to stay synchronized; they will run faster and slower because of slightly different characteristics in their physical makeup and environments, plus the effects of acceleration and gravity.

Many people are familiar with the findings of relativity theory, that the faster we go the slower our clocks run so that one twin leaving earth on a spaceship traveling at close to the speed of light will, on his return, find himself younger than the twin who stayed at home. Einstein's special theory of relativity showed absolute simultaneity does not exist; observers detecting an event will assign a different time to it depending on how fast each is going. According to general relativity theory, clock time can only apply to small patches of the universe

But modern physics questions the very existence of time. Some versions of string theory do not need to include time as a variable. When Einstein's equations for gravity are re-written in the same form as equations for electromagnetism to develop a unified quantum theory, time completely vanishes from the resulting Wheeler-Dewitt equation.

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Many physicists suggest our assumption that time flows from past to future may be more feeling than fact. They point out that Newton's laws work just as well going backward or forward in time, and although we cannot go back in time, this doesn't imply time flows in one direction; nature abounds in irreversible processes (e.g.the tendency toward entropy as described by the second law of thermodynamics).

The fact that time's arrow "points" toward the future doesn't mean the arrow is itself moving toward the future any more than a compass needle pointing north means the compass is traveling north; the arrow indicates an asymmetry, not a movement. If time "flows," it means some thing is moving relative to another thing: if time is itself moving, we would have to specify what it is moving relative to.

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We usually think we live embedded in time as if it were a flowing stream. This was expressed well by Marcus Aurelius, who wrote: "Time is a sort of river of passing events, and strong is its current; no sooner is a thing brought to sight than it is swept by and another takes its place, and this too will be swept away."

But there is another way of approaching time. Thornton Wilder refutes Marcus Aurelius, saying "It is only in appearance that time is a river. It is rather a vast landscape and it is the eye of the beholder that moves."

Jorge Luis Borges: "Time is the substance from which I am made. Time is a river which carries me along, but I am the river; it is a tiger that devours me, but I am the tiger; it is a fire that consumes me, but I am the fire."

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Craig Callender, writing in a special issue of *Scientific American* devoted to the physics of the time, suggests "the apparent flow of time is a product of our surreptitiously putting into the river a witness of its course; we then forget to put ourselves and our connections to the world into the picture. In this picture, physical time emerges by virtue of our thinking ourselves as separate from everything else."

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We are not separate from everything else. We are connected. If we weren't connected, psychotherapy could not exist.

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We cannot "keep" time because there is nothing to hold on to. The Diamond Sutra, a core text in early Buddhism, states something we know, but rarely pay attention to: the past is gone, the future is not here yet, *and the present cannot be grasped.*

What time, then, do you exist in? How could therapy "take" time?

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Therapy, like life, does not "take" time because time is not a dimension we exist "in." We are time, and time is us.

As Eihei Dogen, the founder of Soto Zen in 13th century Japan, puts it: "Time itself is being, and all being is time."

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In Dogen's fascicle *Uji* (The Time Being) he says "Time is not separate from you, and as you are present, time does not go away. Do not think that time merely flies away....If time merely flies away, you would be separated from time. People only see time's coming and going, and do not thoroughly understand that the time-being abides in each moment."

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We are often advised: "be in the moment." But a moment is not a very brief instant of time.

Zen teacher Shunryu Suzuki used to say that in a single finger-snap there are millions of instants of time. When you meditate, you become quite aware of this.

A lot can happen in less than a second. Psychology research shows chronological resolution of perception is quite variable but can be measured in milliseconds (visually the fusion threshold is around 40 milliseconds, aurally about two milliseconds). Neural impulses can travel as fast as 350 feet per second, although when you are reading and thinking they go only about a quarter as fast.

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Moments, are best viewed not as short intervals on a time line but rather as meeting points: attention meets thought, action meets object, self meets other. This moment is defined by you reading what I have written.

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Points are defined in geometry, as in life, by intersections. In geometry, a point has no dimensions, neither length nor width nor depth. Extending the analogy, we can say a point in time is, in a way, timeless.

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Some physicists suggest each moment has its own existence. Rudolf Rucker, in *Geometry, Relativity, and the the Fourth Dimension,* spells out the implications of this: "Every instant of your life exists always. Time does not pass. *We are in fact at each instant of our lives.*[my italics]. Every moment of past and future history exists permanently in the framework of four-dimensional space-time."

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Moments are pivot points, each an opportunity to turn this way or that, openings in which experience unfolds. Psychotherapy is an intersection of self and other, points of time where therapist and client jointly create pivotal moments. In single-session therapy, we often find problems being maintained by ineffective attempts at a solution; conversely we often can discover pivot chords where - like a musical chord that simultaneously implies two keys and facilitates modulation from one to the other -- a problem can suggest the seeds of its own resolution. These pivot chords are most likely to arise when client and therapist feel fully "present." At that moment an opening blossoms here-and-now.

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Each moment is forever. This rather esoteric saying actually conforms to our subjective experience of time. It is only when we stop and look back that, surprised, we say: "look how much time has gone by." When we are fully absorbed in an activity, moment by moment, we don't notice the passage of time.

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Good moments in therapy are fully absorbing. They resonate back to before and create openings to ever after.

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Mind and moment are inseparable. As Dogen says:

> The mind arises in this moment; a moment arises in this mind….
> This is the understanding that the self is time.

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Dogen alerts us to a crucial issue for therapists doing therapy moment by moment. He points out that "since there is nothing but just this moment, the time-being is all the time there is. Each moment is all being, is the entire world."

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This is not an abstraction but a a liberating gateway to our life. To say "the time-being is all the time there is" doesn't mean we must "seize the moment" (which is impossible, since time cannot be grasped), nor that we should indulge ourselves because time is fleeting. "There is nothing but just this moment" means: *this is your life.* It's right here, right now.

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Step off the treadmill of time and you can turn self and world inside out and all around simply by opening yourself up to the realization: this moment is *you.*

As Dogen puts it, "In essence, all things in the entire worlds are linked with one another as moments. Because all moments are the time-being, they are *your* time-being."

This is why single session therapy is possible.

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Implications for therapy are innumerable. Hypnotherapists use time distortion, age regression and progression; strategic therapists may schedule a symptom or alter its rhythm or speed; psychodynamic therapists may use time-limited therapy

to activate issues of separation and loss.

Clinicians have explored how time perception varies with depression, anxiety, and other emotional states. The rhythm of therapy sessions, their duration and frequency, may alter its effects. Some suggested readings are appended.

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Every therapy session demarcates a beginning and an end in the continuous flow of experience. We break it into small pieces to make it manageable, but rely on that which can never be broken.

Appreciating time as ungraspable and the self as time, we find time is not our enemy but our ally on the path of liberation.

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In this view of time, anything is possible any moment. This is the attitude for doing single session psychotherapy.

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Nothing is ever finished, but everything is always complete.

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To quote the *Xinxin Ming (*"Faith in Mind,") a poem attributed to the third Chinese Zen ancestor, Jianzhi Sengcan (Jap. Kanshi Sosan) around 600 A.D.:

"Words!

The Way is beyond words,

for in it

there is no yesterday, today, or
tomorrow."

Sources of Quotations and Suggested Further Reading

Citations are ineluctably tied to the past; we need to honor the past but need to make it present. I therefore purposely wrote this chapter without putting citations in standard academic style (i.e. with an accompanying date) in the hopes of encouraging the reader to enter a different mind-set that might foster a new sense of the time being.

The works below contain both the sources for the specific quotations I used; in each case I named the author. I've also included authors below I did not quote directly, but whose works on time and psychotherapy have influenced my thinking, and I recommend each of the works cited below to readers interested in taking the time to delve further.

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Figure 1