

The First 10 Seconds of Eternity

From Heaven to Earth

The ovum is pierced. The genetic traditions of all our ancestors pour into each other. Dancing chains of DNA, the jeweled necklaces of life, embrace and entwine. Personal characteristics from both sides extend greetings, meeting their destined partners. The eternal dance begins. Twining, twirling, they are weaving into one. As they fuse, the past vanishes. Now we are. We know nothing. Yet we know everything because we are all we know. We are the one and only, the only one, the one-cell dream of a future self. We've arrived and we don't even know it. It all begins here and we are very new.

In a time of timelessness the fertile cell divides and divides again. Patches of genes awake with specific organizing powers. The entire composition is recorded in every cell, the plans as well. Here the feet, here the eyes, and here the brain. In the eternal darkness our home is forming. We are forming, and nothing is left to chance. We've been unalterably and completely ourselves and only ourselves from that moment of creation.. We're woven into every strand. From this point on we simply locate our cells, find a place to settle in, learn a specialty, and multiply. And where is the mind? Will it reside in the toes? Those

who lose their toes rarely lose their minds. Was a mindful spirit nestled in our budding heart? Many hearts have been transplanted without any sharing of the soul. If our mind is perceived in the brain during our life on earth it must exist in a very limited form for a while. The eyes are not complete, but there is nothing to see. Nor is there a place for memory. These capabilities will all come much later. Now is the time of quiet building. We turn in an endless universe while currents and connections less thoughtful than thought and many times more profound are becoming the exquisite networks that will help us perceive our life and introduce us to the world. We have nearly nine months to go. Nine months to create, bit by bit, the biological basis for a consciousness that will one day know our spirit, our mind, and our soul. Like all truly beautiful expressions of nature, it takes time to come together, time to bring us alive, and time to come apart again. It becomes over time, takes us into time, and it will go, ultimately, only after we have gone.

Our first being is oneness. There is no time to compare with this because without another there is no comparison. The time of oneness is always forever. The cell divides and we start the time of two. And then comes the time of four, and the time of eight. Soon, there is the beginning of a neural ridge. As each new living neuron comes into being, the growing brain becomes more complex. Three months after conception our brain is adding 250,000 new cells a minute. At birth it contains between ten billion and ten trillion of the most complex cells in our body. It is more elegantly specialized and balanced than anything in the universe known to man, for it must perceive our universe and balance us within it. We remember none of it. We can't remember when we were all female. It is not until the third month when the male fetus produces hormones that alter his body and brain and make him fully male. Males can be feminized and females masculinized by abnormalities in a mother's hormones during this crucial time in development.

Severe stress during pregnancy has been linked to this problem. A mother requires emotional as well as physical well-being to bear healthy children. She needs stability in the world around her. In another universe, within her, a child is moving steadily towards a meeting with a world it could never imagine, a world of time and space, the world inhabited by our human race.

Controversy continues as to when we are officially human. Some use the moment of conception. Others wait until life can be sustained outside the mother's womb. Still, all would agree no newborn is fully developed. The passage down the birth canal is not the final event. It is simply a physical interruption in our maturing process, transferring us outside our mother as soon as we could survive. Survival wasn't something we'd ever thought about up to that point. We never expect to be born. We all naturally assume we'll remain where we are forever. In fact at that point we can't really expect anything at all.

This is our beginning, and it is also our ending. We all start in no time, no place, all time and all space. Our name was simply "I am". Soon we will have to leave this eternal place, and it will be a lifetime before we return. Do we remember our birth? Of course we do. Every cultural myth of the creation of mankind is a broad interpretation of birth from the viewpoint of an infant being born. The first Incas emerged into the sun from a dark cave. The first Navajos arose through a hollow reed to a "glittering place". We are about to become again. Now we are about to take human form and be transformed into a infant in it's mother's arms. A blessed event for her, but a bewildering one for us.

The Creation Story

There is a dull redness during daylight. The fetus's eyes open by the sixth month. Stretching and turning in the darkness, we grow more aware. There are distant sounds, muffled murmurings of God, closer and clearer. The fetus can distinguish words by the eighth month. In the eternal rhythm of our only universe, the

heartbeat of our mother fills our world with the pulse of life. The rhythm was there before us, existing before we were, beyond the beginnings of time. During our life we will continually seek, be calmed by, and even sway to this same rhythm if we feel stressed or anxious. We will roll back to the beat of our very beginning, the wordless prayer we all know.

This day we awaken to changes. In our eternal darkness a new spirit moves over the waters. Suddenly the world is jarred and jolted. There are great movements, voices becoming clearer and louder. The creator is about to jump-start the world for us. The powerful contractions begin. In the beginning the obstetrician said “Turn on the overhead light,” and there was light. They saw that you were good, and it didn’t take seven days. Still it was a such chaotic experience it may have seemed that way as forever suddenly ended. What a demotion in scale! A moment before we were the entire universe, the be-all, he-all, she-all and end-all. Now we’re reborn helpless as an infant, alone among others. Our minds weren’t started at birth but we must have been startled. Overdosed on natural endorphins, we were shoved down a dark tunnel into a blinding light. It had been forever in stage one and suddenly we’re gasping and blinking and kicking our way into our next stage. It’s center stage. They turn on the lights; the crowd cheers. It’s a whole new ball game. Who asked for this? We call foul. We cry. We yell. Literally, figuratively, metaphysically, and actually we are really put out. Newborns dream a lot about the old days. They spend nearly half their time in REM sleep, the dream state, even with their eyes open. They just can’t believe it. It was supposed to be forever and ever; and now this utter confusion? What happened?

We keep waking to a new reality and we cry a lot about it. You can’t remember, but neither can anyone else. We talked in baby talk and we thought in baby thought. We can’t recall anything specifically because a baby brain is can’t recall specifically. Lower creatures practically up to the reptiles arrive ready-made. Just hatch them and they’re off and running. Aside from their size they are as smart as they’ll ever be from their first days on earth. Here they come and off they go. More complex brains take time to fine

tune and we mature as our parts mature. We come onto this earth both unfinished and unorganized. We can't even eat solid food for a long time. No part of us is fully detailed or final. Every part is infantile. Baby toes, baby nose, baby fingers and baby brain. They were all working or we would not have been born alive, but there is a long way between first appearance and final maturity.

Every part of us had years to go. Our brain, also, was far from being organized. It takes time to become structured, articulate, differentiated and capable of consciousness as we know it. It was a baby's brain, as capable of reflective thought as baby legs are ready for running. It still had to develop and grow further, all the time perceiving and understanding as best it could with what little it had. Given back our baby legs, we would stumble and fall. We are not ready for gravity yet. With a baby brain, consciousness is equally incapable of the sure and distinctive method of thought characterizing the adult mind. We are never going to know how it was because we're only mentally infantile once, and we hadn't the sense to appreciate it. Youth is wasted on the young, they say, but we may never again be as wise as when we were living in pure infantile awareness. Not that we had any alternative, of course.

We are born with nearly all our neurons, our brain cells. These cells rarely reproduce. For reasons that will become clear, it is impractical to have to deal with the constant appearance of blank, immature or disconnected cells in the midst of things. Instead, there is enormous redundancy. With trillions of cells we can afford to lose a couple of thousand a day all our lives. In fact we do, but we never run out during our life. Between birth and the age of about three and a half, for each of us a little differently, consciousness is constantly on the run as our brain hooks itself up and trims itself down to size for a lifetime career in data processing.

Each neuron communicates with others by sending electrical pulses down its main nerve fiber, the *axon*. Each axon in turn splits off into numerous hair-like *dendrites*, tiny sub-fibers. An axon fully grown with all its dendrites is fully "*arborated*" from the Latin word *arbor*, tree. Under the microscope it looks

exactly like a tree without leaves, dividing and sub-dividing from major branches to the tiniest twigs. In this way each neuron can be in contact with thousands of others. With nearly all these cells in place at birth, much of our next three years is spent in the gradual development of the axons and dendrites. Our chips are in place but they aren't wired up yet. We have to make our connections before we can make our communications.

At about a year and a half, our consciousness undergoes a very significant change. Until then the brain has been using a lot of energy to push impulses down those innumerable pathways. Now *glial* cells go to work. From the Latin word for "glue", these cells were once thought to provide packing, "glue", for the neurons. They do far more. Specialized glia called *Schwann cells* wrap each axon in a fatty layer of insulation called *myelin*. This allows electrical impulses to race along as much as ten times faster using far less energy. The brain quickly adapts to the upgrade. Other glial cells do the same for the nervous system, preparing it for the complex micro-movements that will allow baby to take her first steps. It's during this time of *myelinization*, as the process is called, when malnutrition can cause mental retardation. The infant brain is still very vulnerable. From our own perspective, however, things must have really done a flip as we retro-fitted our mental operating system with the new high-speed networks. We completely alter the pace and the perspective of perception and we take it for granted. In other words, no infant ever remarked on the transition of reality from what we might call our "universal infant Jungian mythology" state to the "ancient real memory" state. We are beginning to set the stage for adult reflective consciousness but we still can't discuss it with anyone because until the speech cortex is ready, we can't talk.

The growth of tiny dendrites is abundant during this period. This creates yet another effect on perception. No matter how memory is recalled, it must be stored in some way for it to be accurately retrieved. Complex memories require a large storage space or enough small storage areas to hold the necessary detail. Luckily, the complex arborization of human neurons makes this possible. In its limitless

interconnections the brain never runs out of complexity. At maturity, with trillions of cells hooked up to thousands of others and each capable of a nearly infinite number of energy levels, there is more than enough. But there are other tricks that the growing mind plays while we are still infants. For years after we are born our neurons grow more complex. Dendrites continue to branch and grow, establishing their final networks and settling in for long years of electrochemical exercises. The brain reaches its greatest internal complexity at about the age of three and a half months. Then dendrites which are used less die off, leaving our basic neural staging. This is our unique lens of consciousness. It will eventually enable us to perceive our hopes, our thoughts, and our world for the rest of our lives. Infant activities strengthen and nurture growing neural networks as we reinforce and repeat. These tiny basic differences, through time and repetition, will eventually become the foundation of specific personality and our entire underlying image of the world.

By the time we are three-and-a-half, almost all our major structural upgrades are complete. Final maturation progresses slowly until adolescence but the rapid growth phase is over and our brain structure is stabilized. Memory is no longer distorted or transformed by physical growth. As the brain's prefrontal cortex comes on line, chronological time finally becomes possible. "Then" becomes distinct from "now" as time begins to register. Children can now consciously differentiate. They know they are little boys and little girls. In Tibet they traditionally select young lamas at about this age. It is no coincidence. The fresh mind is ready for training as we begin to learn from a clear memory of day-to-day living. We remember ourselves in our past now, and see ourselves in a future. We become who we are.

All children, in all lands and in all families, gradually become self-conscious. Socialization begins. We learn we are not center stage but one among others as we come into contact with the world around us. We become more aware of ourselves and every month more out of touch with the eternal world that was formerly ours, now so long ago. Before we came into context, we had been incomparable. For so long we

had been the total universe. Birth itself was just a major incident. For three years the world turns in sympathy with the churning activity of our budding baby brain as we weave our way to selfhood. We enter this consciousness not all at once, but by degrees. This could account for the mystery we sense in our earliest beginnings. In his poem *Intimations of Immortality from Recollections of Early Childhood*, William Wordsworth wrote along similar lines over a century ago:

Our birth is but a sleep and a forgetting

The soul that rises with us, like a star

Hath had elsewhere its setting,

And cometh from afar,

Not in entire forgetfulness,

And not in utter nakedness,

But trailing clouds of glory do we come,

From God, who is our home,

Heaven lies about us in our infancy!

Those first affections,

Those shadowy recollections,

Which, be they what they may,

Are yet the fountain-light of all our day,

Are yet a master-light of all our seeing.

As John Updike wrote in a 1991 essay, “The poet puts forward a considerably developed metaphysical explanation for the incomparable vividness and mysterious power of our first impressions.” There is a bit of the poet in each of us and it has its beginnings in the fantastic never-ending world we found ourselves in during our first three years of life. It was a different world, but our guardians were there to offer security. The first word for God must have been “mama” and the first man to play the Heavenly Father in our life was our own “*abba*”, “daddy” in the Aramaic of Jesus. It was our only world, and it was only there for us. We spent many forevers playing Adam or Eve.

Heavenly Days: From the Garden to Our Back Yard

Although this information about the maturation of the brain has been available for some time there has been little discussion about how a constantly changing mental environment is experienced by a growing child. It seems clear if the brain is growing more complex every day, so will our thinking as well. We are all familiar with the concept of infant learning. Still, we cannot hope to recall the experience of thinking with a brain which changed from month to month for three years following our birth. It’s a long way from the simple mentality of an infantile brain to a fully developed adult consciousness that uses abstract concepts, reads books, and understand words in sequence. If our brain needs four years to just get ready, from conception to brain maturity, it provokes speculation as to the nature of our earlier mental states.

Three aspects of infant consciousness are typical of this rapid growth stage. First, as early brain structure is simpler our earliest memories are of a simple and more universal nature. Each day we add connections and each day things become a little more specific and sophisticated. As toddlers we experience an evolving, nearly improvisational consciousness as our awareness upgrades day by day. It’s like powering up a computer with the most basic operating system possible, then adding new chips every week

while at the same time revising and improving the system's architecture. The programming language would have to evolve to match the growing complexity of the circuitry. A good analogy is the language we speak. No matter where we live, we know our native language has its roots in earlier tongues. Ultimately this all regresses back to the original human languages. An American who spoke some German and studied Latin in college might guess the origins of half his English vocabulary but would be completely lost in original Indo-Aryan. Likewise, our earliest personal memories are hidden in simpler neural patterns, faded and overgrown like cracks and colors in the Rosetta Stone. We can never translate them, but we all know they're there.

Second, as additional dendrites grow out of the same cells for years, early memories will be generalized even further. No matter how memory is recalled this rule still applies. If memory is a pattern of electrochemical values, it changes as the physical structure holding it changes. If it is subtle currents in chaotic flow patterns, the entire flow changes a tiny bit whenever any part of the brain changes. With all those changes, original memories are never coming back. We all sat in chairs much taller than we are, at a dining table the size of a garage. Most of these distorted visions are scattered into obscurity by later brain growth like the destruction of ancient Asian temples crumbling under the vines that displace the stones and topple their walls. Our earliest past is past recollection but the ruins still remain to haunt our present progress and our future dreams.

Third, it stands to reason recently evolved modifications to our brain structure would be the last to mature. They are based on earlier developments and appear as later improvements. The recently evolved forebrain and prefrontal cortex mature quite late. They are associated with aspects of awareness unavailable to young children until these advanced structures are ready. The word *cortex* is from the Latin for tree bark, and refers to the convoluted and fissured surface of the brain. The very last parts of our brain to log on are these recently evolved prefrontal structures, which retain some of their flexibility all the way

to adult physical maturity. They're barely operational before we are three, which is another reason we can't seem to locate early memories. Our memory locator is one of those later applications. It only runs after the memory itself is operational, and that doesn't happen for a couple of years at least.

The way our brain matures during infancy and young childhood is reflected in levels of consciousness we employ for common tasks. In 1991, neurologist Larry R. Squire, working under Dr. Marcus Reichle at Washington University in St. Louis, used a positron emission tomography (PET) scanner to determine the order in which brain structures are used during recall. Students were asked to match word fragments with a list of words they had been shown and asked to memorize. The subjects had to use not only short-term recollection but also the ability to match word stems with likely candidates in memory. A primitive brain structure, the *hippocampus* (from the Latin "sea horse" because of its shape), was involved with immediate recall. However, as the brain started serious word matching the more sophisticated visual cortex lit up as if the subjects were visually scanning a list of words. Finally, when the students started searching their deeper memory a "hot spot" appeared in the prefrontal cortex. This recently evolved structure seemed to be monitoring, or even directing, a detailed search through the entire file of verbal memory. The hippocampus is ancient, the visual cortex more recently evolved, and our prefrontal cortex has been doing sophisticated memory searching for less than a hundred thousand years. From instant reaction to reflective thought we activate increasingly complex levels of conscious recall, each level represented by a more recently evolved addition to our basic brain structures. New research with magnetic resonance imaging (MRI) has confirmed and expanded on Squire's work.

This leads to some provocative suggestions. Since human memory lacks temporal organization until a child's prefrontal cortex is mature, we can't develop a sense of time until fairly late in our mental growing-up process. Our earlier, more generalized perception blurs the distinctions between one day and another while recall without chronology would eliminate any planning. Months could last for years; years

could be centuries. There were endless summers; eternal meditations on clouds, simple comforts and anxious scenarios. There is no sense of time in a dream either, when the prefrontal cortex is asleep. As infants we lived day to day in a dreamtime where it is always present tense. Meanwhile, due to simple brain maturation, memories of earlier images and experiences became more generalized every day. Imagine the difficulty of forming any consistent images of a world remembered so differently from month to month during years that felt like endless lifetimes. We have all the time in the world before we develop a sense of time.

Not until certain advanced brain structures are nearly mature can daily events be precisely recalled or even kept as a reference. We were the center of it all as long as our growing brain was flexible. We were kissed because we were so lovable, not because mother just won twenty dollars in the lottery. What did we know of lotteries? We were spanked because we were evil. What did we understand of family politics or pre-menstrual syndrome? We were responsible for it all, since we were the main event in the only world we knew since birth. Before then was eternity. Now we were here, in this place where things kept changing.

It was forever once, in such endless peace. Suddenly we were ejected and met the great powerful gods and demons who alternately blessed us to dry-diaper-heaven or condemned us to centuries in too-hot-bath hell. Sometimes it seemed like forever again, alone in the desolation of a dark, lonely room only to be wakened and hugged back to paradise in a mother's arms. All babies feel the same way. All over the world details are merely cultural. Infantile reality works identically in every little infant mind. We were all little angels, sent down to earth. We all wandered in the fabled garden, naked and unafraid. Once upon a time God really did speak to each of us, thundering from on high. Probably about six feet high, but who's to know for certain when we're standing there at one and a half with a brain only half-way through hookup, innocent of good or evil. Just because we fed the VCR a slice of pizza? It's mouth was open, right? But finally the images don't change and the sequencing becomes clear. Now we can remember clearly. We

seeing ourselves in our minds, in a past, and wonder about tomorrow. We become reflective and begin to find our place in the scheme of things. Don't stick the vacuum cleaner hose onto the garden hose. It works, but the last time I did that Her Greatness Mom was not pleased. I got spanked. Better bring dandelions from the lawn. That gets cookies and hugs.

As our brains mature into memory and clear reflective thought, we begin to pick up and retain both personal and cultural detail. It happens over a nearly endless time. The gods descend from heaven to be our mothers and fathers, great saints and demons took off their halos and horns and became older brothers and sisters, aunts and uncles. Bears and monsters become dogs and dump trucks as we graduate from the collective unconscious of infancy, passing through a place of fable and mythology we can barely recall in our deep and personal past. During three years of worldly time we are weaned from the world of our oneness and re woven into the collective fabric of our family and culture. With the arrival of our mental maturity we finally come into this world. The tree of our knowledge is now fully arborated and the mind is ripe. We begin to notice the many differences between here and there, me and he and she, good and bad. As we bloom into conscious chronological thought we are severed from eternity for the rest of our life. We are no longer all and forever. We are quickly becoming one more lost soul in the here and now. Still, even as we all come to grips with the grip of time every single one of us distantly remembers, in some general and diffused manner, those days when the gods spoke. We remember the love they gave us, the same love that we carry at the very base of our knowledge of this world. It was the earliest language we knew, the earliest source code of our soul and all our sensibilities.

Our earliest memories are of our parents and their natural love. Babies are treasured everywhere. No culture in the world condones cruelty to infants. The one thing we discovered in this awful world that made the loss of eternity bearable was the love we found there. It is the only ration we can take with us when we leave the garden because it is so simple. It becomes the compass we always use to find our way back again.

We know we must find our way back one day, back to our old eternal home. We can't forget it just because we are discovering mortality. But we do. We all forget our first eternity. We nearly forget the love as well. But somehow we believe it will all come back some day. Back when days were months and months were years we have the answers to why both Jewish patriarchs and Buddhist demigods, "*devas*", had such extraordinary lifespans. When we were very small there really were giants around. We find them in Genesis and all creation stories. The years before reflective understanding are different because we experience them so differently. All mythologies start with a golden age; or at least a time when the gods were making sure everything was working right. It is to this earthly plane we descend simply by growing up. Heaven was our infantile perception of our own infancy. It is our common inheritance, shared by every human on this planet. We were all there once, and we will all be there again.

If we try to think back to our earliest memories, we can almost scent the breeze of timelessness beckoning over the dark threshold. This is the true time warp, the undertow of trying to remember thoughts from another era. These are times so deep and so vaguely comprehended that they are more like ancient fossils trapped in the strata of our past. We can hardly remember how long it was from age three back to age two. From two back to one is even longer. There is plenty of time for any number of "previous lives" in the collective and universal infantile mind. There is more time on the other side of birth than we will ever remember. There is no time so endless, or so deep. The haunting memories of those earlier times are still there, scattered and generalized through our waking perceptions but still alive in our dreams and our nightmares.

Only if the mind simplifies can we ever re-experience that other universe, always there within us. If the maturation of the human brain forces us to forget that timeless place in order to deal with present time and space, no matter. We will rediscover it again at the right time. Whenever something makes our mind simple again. It happens every time we are taken to the limits of our perception, those times when time

stands still. In sudden terror and in ecstasy the overburdened brain slips time for a moment. Instantly we know things that we cannot express in words or even think about. It happens every time we undergo an experience so powerful it blankets consciousness, forcing us mentally into a momentary timelessness. It happens temporarily, but only momentarily. It keeps us aware that there is that place beyond human description. It will happen with eternal finality during death, the only experience in this lifetime that can loose us from the grip of time in plenty of time to make it to back to heaven forever...just before we die.