

Almost O.K.

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*The Difference Between Life and Death—
A Close Look at Suicide*

Federico Sanchez

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In memory of Mitchell Xavier and
for all those who are almost O.K.,
hoping “almost” leads to a full life.

Death and the Beginning of the Search

My son Mitchell committed suicide on November 12, 2002.

I was devastated.

How was this possible? When my first son Frederick was born I discovered how vast love can be. When Mitchell was born almost two years later I was afraid that I couldn't love him the same way. I couldn't imagine, even vaguely, that a love so huge could double. I quickly discovered that the love for one child in no way interferes with the love for another.

Mitchell was born in November 1979 at the Community Hospital of the Monterey Peninsula, and one month later we went back to Cuernavaca, Mexico where we lived at the time. In 1989 we returned to the United States and made Carmel our permanent home.

Every child is lovable, but Mitch was especially adorable. Mitchell was born a healthy, eight pound baby. He came out huffing and puffing. He was breast fed until he began, at eight months, pushing, pulling and squeezing his mother's breasts to get more milk. He couldn't get enough. By the time he was six months, he sat and easily laughed, like any normal baby. Yet, I thought he was a genius, like his brother Freddy. He walked by eleven months and was bi-lingual since the time he started talking, even though he preferred Spanish, his native language.

He was beautiful as a baby and child—redheaded, green eyed, with a round face and tiny little dimples when he smiled, and a contagious laughter. He was a kind and gentle soul. He was always curious and inquisitive with a natural intelligence. As a student, even in grammar school, he was not only good in science classes, but also in History and English. On top of that, he was a poet, and a singer and pianist, and a guitar player. In Middle School he had his own band, and he kept composing and writing songs until his untimely death.

Mitchell developed into a brawny young man, with wide shoulders, small waist, delicate hands and abs like a wash board. But even as a small child he

showed great strength and stamina. He could swim underwater before he walked. When he was four I took him on a hike to the top of the Tepozteco to see some Indian ruins near Tepoztlan. Dale, a fellow college soccer player and myself, both in very good shape, had a harder time making the climb to the top than him. When he was ten he could run on a soccer field tirelessly throughout an entire game. But, he was more interested in one-man sports, like surfing, skateboarding, or snowboarding. His athletic ability showed in grammar school where he took gymnastics, which later translated into somersaults, twists and spins he used to dazzle others as he sped down the mountain on his snowboard or jumped through and over staircases on his skate board.

In his junior year in high school when I took him to see colleges on the East Coast. He decided he was going to MIT when he heard that one of the requirements to get into this prestigious institution, was not how many AP (advanced placement) courses you had taken, but whether in your senior year all your classes were AP courses. At MIT, he thought it was so cool that not only the floors had numbers, but also the buildings. These were interconnected and so you could find your way around campus by using coordinates based on the numbers of the buildings and floors.

Mitchell was popular with his friends and with his good looks, he never had any problem dating the most popular girls, even in Middle School. He grew up in a rich, pretty stable family environment with an older brother that marked the path to follow, or at least set the bench marks to surpass.

Looking back on his life up to high school, the only bad things I can remember, were a few incidents in his senior year that seemed to indicate that there was something wrong. He didn't know what it was; neither did us. And the few doctors that saw him misdiagnosed him. But, it passed and he seemed almost O.K. This was part of the reason he dropped some of his senior AP courses.

As a consequence, he was not accepted at MIT, even though Derek, one of his dear friends did go there. He enrolled in the Engineering School at the University of California in Santa Barbara, and later changed his major to mathematics, then to English, and ultimately graduated with a degree in International Studies. I understand now, and hindsight is great, this was indicative of some inner problems, something deep, under the surface. Yet, I felt that whatever it was, whatever internal demons he fought, it couldn't have been too great as he managed to finish college easily—it seemed to me.

Almost all through college, Mitchell had a beautiful, steady girlfriend—lovely Katie. He traveled to Mexico repeatedly. He went to Europe and Costa Rica. He'd been to the East Coast, the Rockies and the Northwest. He drove

with his brother across the United States. He skied the Rockies and the Sierras. He skied in Utah and Oregon. He surfed in Santa Barbara, Carmel and Costa Rica. He had a great life.

Mitchell was planning to go to Spain in a couple of months to get a Master's in International Business . . . How could this be possible?

When my sister died several months before Mitch, I thought I had discovered how deep grief could be. But my son's death brought me face to face with the true limits of what can be endured. My life turned gray. I felt like a still, early winter afternoon in the Antarctic—gray sky, gray clouds, gray ocean, smooth and motionless; the air cold and stifling, no ripples on the water's surface, no movement anywhere, and grief froze me in my place.

I can comprehend the process of fusion that fuels the sun. The life of stars, measured sometimes in billions of years, makes them seem immortal. Yet, too, they perish. I can understand how gravity makes stars bigger, so big in fact that they implode into themselves and then produce a brilliant super nova explosion. I can be aware of how our planet with all its atoms, more than five billion years ago, was created in one of these gigantic fusion furnaces. Supernovas, more than rainbows, are a promise of a new beginning. While physics can take us back in time until a few fractions of a second after the big bang and quantum mechanics can help us build better computers to plot the future course of the universe, we still find it difficult to understand love or ourselves. Or suicide. It seemed like such an abstraction. Now, it had taken my child's life.

I used to think that I was immortal, at least in the sense that some of my genes were passed down. Now, I am less certain about everything. Who are we, really? What makes us, us? We are ethereal in the sense that the atoms that make up our bodies change daily. The food we take in, the energy we use up, our bodies' wastes, insure that there is a constant stream of incoming and outgoing atoms. In that sense, our bodies are continuously transforming. We are never the same; we are passing through. Ultimately, what makes us, us, is our brains.

One should not be shocked when death calls early. Life is so fragile. On the contrary, we should be astonished that life endures against so many obstacles. We should be amazed that love can flourish during a short lifespan, and endure after death, unshakable.

~

I will never forget that phone call. On Tuesday, November 12, 2002, at 8:03 a.m., the phone rang in my bedroom in our house in Carmel. I was still

in bed. It was my son Mitch calling from New York City. He had gone to New York the Wednesday before to work in our store in Manhattan to make some money before he went to Spain to start a Masters Program in January. He was staying in our apartment on the East Side with Donaldo, our dear friend and store manager. Mitch had also told us he might be pursuing his music career more seriously and that he needed to see his dear girl friend, Katie, with whom he had broken up amicably in the spring while they were finishing their senior year at the University of California in Santa Barbara. Katie was working towards a Masters degree at New York University.

“Hello,” I answered.

“Hi, dad. It’s Mitch.

“How you’re doing?”

“I’m not doing well. I had a really bad night last night. You are right. I need therapy. I’m coming home tomorrow.” His voice sounded hollow and broken. He was referring to part of our last phone conversation, a few days before; I told him that even if he felt good, he wasn’t well and he needed to start a consistent therapy program. I had tried to convince him that taking medication wasn’t enough, that he should volunteer to enroll in some therapy to help with his moderate depression and occasional panic attacks. I had told him that it takes time to make changes in our brains. As an example, I mentioned how I had quit smoking five months before, and I still felt occasional cravings; rewiring the brain takes time and work.

“What do you mean you had a bad night?”

“I couldn’t sleep, it was really bad, and I’m still not well. I’m all jittery. I’m flying home tomorrow.”

“Don’t worry, soon you’ll be O.K. At what time are you arriving? I’ll pick you up.” I was trying to keep the conversation light. I was aware that he didn’t like me to mention his “thing”. He claimed that talking about it made it worse.

“I don’t know. I need to check my ticket.”

“Well, you do that and call me back.”

“But I’m flying into San Jose.”

“That’s no problem. Do you know where your ticket is?”

“No. But that’s all right. I’ll call you later, Dad. Good-by.”

“Just call me and I’ll pick you up. I’ll see you tomorrow, Mitch.” I said as he hung up.

A few hours later, I said to my wife, Pat, “Mitch called. He’s not doing well. He’ll be coming home tomorrow.”

It was a little after two o'clock in New York when Pat, worried, called our Manhattan store. "Is Mitch there? . . . Hello, Mitch? How are you doing?"

"Not well, mom."

"What do you mean, not well?"

"I don't know. There is a blackness in my head. It doesn't go away. I don't know if I'm ever going to be well."

"Everything is going to be fine. You'll be home tomorrow. As soon as you get here we'll start working on this. We'll get you a doctor." Pat reassured him. A psychiatrist that had been recommended to us would be back from his vacation. Pat felt like she wanted to fly through the phone line to be with him. If only she had been able. "You're going to be just fine. Just go to the apartment; calmly gather your things and pack. Just relax and take it easy. We'll see you tomorrow."

"O.K., Mom. I'll see you tomorrow," Mitch said.

"Is Donaldo there? Pass me Donaldo . . . Donaldo . . ."

~

In the first weeks after my son's death, I walked around in a haze wondering how all this could have happened. How could this happen to my son? How could this happen to me? If it could happen to me, then it could very well happen to anyone. If the doctors that saw my son failed to identify his problem, then they would continue to fail with others. More would continue to die unnecessarily. The few books on suicide that friends gave me had no answers. I realized I would have to figure it out myself and I would want to share whatever I found with others. And I had promised my son that we would find some explanations to his problems, if not solutions. I determined to write a book, which took me down many unexpected paths. I wrote more than a thousand pages as I searched for ways to communicate what I learned, experienced and felt.

When I started writing, the first working title I used was *Where Do You Start This Story?* This reflected my inner search as I tried to figure out how such a book should be written. How or where do you start? I wrote and wrote, hoping that eventually some order would come. A lot of that material was conversations with myself, and definitely not for the reader's consumption; it just served to clarify concepts and ideas.

Slowly, a series of attractions to past people, real and imagined, who also had committed suicide, invited me to explore my relationship with my son,

and suicide under various conditions. A new format began to appear. I wrote a book based on two characters, two souls who reincarnate over and over, whose mission is to first, answer the question of why does suicide happen, and then, second, to prevent suicide. Eventually it would lead to my life with my son, when finally, the questions were answered. This led me to my second title, *When the Sun Sets*. I had liked this version, because it gave me great comfort to think I had lived other lives in the past with Mitchell. In my imagination, we had died together on the Titanic, we had been Vincent and Theo Van Gogh, we had explored the west together as Sacagawea and Meriwether Lewis, we had been together as a slave and silver mine owner in Colonial Mexico, and had been Queen Isabel the Catholic and her son, prince John, in Renaissance Spain. But the few people who read that version were very excited to discuss reincarnation, and much less so suicide, which was the purpose of the book.

I had to reinvent the book and in a way turn it inside out so there would be no confusion: The book is about understanding suicide. That material eventually became the book, *A Thousand Moments of Solitude, A Personal Encounter with Suicide*. The title reflected how alone I felt in my search, as well as, I now understand, how often Mitchell must have felt isolated and misunderstood.

This book is the story of that journey of discovery and healing. Whenever appropriate, particularly when I use biographical material of my son or myself, I include some of the material from *A Thousand Moments of Solitude*.

I knew that I would need to build a theory of how the brain works to explain suicide. I simply didn't know where or how to begin such an exercise. Whenever I attempted to begin writing, certain subjects would fill my mind and I could not move past them. I did not understand it at the time, but this was part of the grieving and healing process. The last time I had grieved, previous to Mitchell's death, was a few months before when my sister died. Before that, in 1999, with the death of my grandmother, in 1979 with the death of my wife's brother and in 1976 with the death of my grandfather. The memories of each one of those deaths intruded on my efforts to think about other things. Here lay the first clue of how the brain works: there is a strong linkage between memories and emotional states.

In my grieving state, the memories of other times when I grieved, like the events surrounding the death of my brother-in-law, Mitchell John, three weeks before my son's birth, were as clear as if only a few days had passed. Some days, in my mind's eye, I could see him more clearly than I could see my son, even though I hadn't seen him in twenty three years. Incredibly, in

one single sitting I wrote down the events I had witnessed on October 31, 1979, with all the minute details, with hardly any corrections and got them out of the way. But, a doubt persisted. Perhaps there was a connection between that event and my son's life. Or death.

On the morning of October 31, 1979, my bother-in-law Mitchell was flying in from Los Angeles. He wanted to be with my wife Pat and me for the birth of our second son sometime late in November. He told me he was arriving at Mexico City's Benito Juarez International Airport at 5:30 in the morning. When I got there I realized there were two flights from Los Angeles; a Mexicana de Aviacion arriving at 5:25 a.m. and a Western Airlines arriving at 5:28 a.m.

At 5:25 that morning, it was foggy and still dark. I stepped outside the International Arrival and Customs area to smoke a cigarette. The airport seemed deserted. I saw some lights up and to the right of the parking lot through the fog. A few instants later, about eight hundred yards away and very close to the right of the parking lot I saw a huge fireball about three stories high and 150 yards wide. It engulfed the parking lot, which was about 50 yards wide. After one or two seconds, the fireball started subsiding, shrinking. I thought a fuel storage tank had exploded.

I quickly checked inside the Terminal to see if passengers were exiting from the Los Angeles flights. I checked my watch; it read 5:31. I figured I had enough time to run outside to see what had happened, come back and meet my brother-in-law Mitch as he came out after going through Customs and Immigration. I went outside.

There were still some patches of fire in the parking lot. I saw a man walking in a daze in what appeared to be a steward's uniform. I surmised that he had been inside a car and survived the blast. I asked him if he needed help. He responded no with a shake of his head and continued walking drunkenly towards the Airport Terminal.

Two young men passed me running, yelling something about saving their mother and aunt. Then I saw a jetliner's wing entangled in a wire fence. I had witnessed an airplane accident.

I stepped onto the wing. Now I could clearly see a big jetliner engulfed in flames. Two fire trucks arrived at the scene. The two young men who had passed me ran into the conflagration.

As I watched the firefighters start to hose down the plane, another man climbed onto the wing. After a few seconds he asked me if I knew which flight it was. By the size of the plane, I guessed, it was either the flight from

Lima or the KLM flight from Amsterdam, as both were scheduled to arrive shortly after the two Los Angeles flights. At the moment I didn't think that the red-eye to Mexico City from Los Angeles could be a "big" airplane.

I saw a man walking quickly toward us on the tarmac. By the four gold bars on his uniform I knew he was the Captain of the Boeing 727 Mexicana flight that had just landed. I asked if he knew what flight had crashed. He answered as he stared into the flaming wreckage, "It's a DC-10, the Western Airlines flight from Los Angeles; the same flight that was behind me all the way," adding, "I have no idea what could've gone wrong."

The man standing next to me asked, with an Italian accent, "Do you have relatives on this flight?"

I automatically answered no, explaining that my brother-in-law was on the Mexicana flight. Turning to me, he said, very matter of factly, "My brother was on this flight." Then, sadly, "My brother is dead".

Looking at the scene in front of us, no one could argue with him. We could feel the heat of the fire on our faces. I checked my watch; it read 5:40. I figured I could wait about another five minutes before the passengers of Mexicana de Aviacion would start coming out of customs. I watched as the fires were extinguished by the fire fighters and was amazed to hear sirens approaching, indicating the arrival of some ambulances. I watched as the fire fighters loaded the first ambulance with what I assumed would be dead bodies. I read my watch: 5:45.

"Good luck," I said stupidly to the Italian standing next to me. He nodded. I ran back to the Terminal. Passengers were starting to come out the Immigration area. Passengers stopped coming out of the gate. My watch read 6:01.

For the first time, it dawned on me that perhaps Mitchell was on the Western Airlines flight. After all, when I talked to him the night before, he only said, "I'm arriving from Los Angeles at 5:30." He hadn't mentioned any airline.

Light was coming fast. The fog was lifting. Except for the sounds of ambulances arriving and departing, everything appeared normal at the Terminal. I ran back to the entangled wing. Now I could clearly see the blackened and twisted DC-10. I could see firefighters laying bodies on the tarmac. I saw the first TV crews arriving to report on the scene. I returned to the terminal.

I called my dear friend Mario, a captain flying DC-9's for Aeromexico at the time. He was up and had already heard the news. I asked him what the procedure in a case like this was. He told me, "Do not think the worse yet. There are many survivors in accidents like this."

“Not from what I saw,” I answered. “Who could walk away from something like this?”

He briefly explained to me what the next steps should be. Western Airlines should have all the answers. I called my wife, who had stayed home at our friend Enrique Gomez’s house. I told her that there had been a terrible accident involving Western Airlines. I explained that it was possible that her brother could’ve missed the flight or for some reason had been detained in customs and had arrived on the Mexicana flight. I asked her to call California and see if she could confirm his flight and/or whether he had boarded it.

Later investigations would tell us what happened. As the Western Airlines DC-10 approached the runway in the early dawn, the visibility was less than 100 meters because of the fog.

“Western Airlines you are clear to ILS (instrument landing system) runway 23-Left, step down to runway 23-Right,” the controller said.

The DC-10 was instructed to approach runway 23-Left, closed for repairs that morning, then shift to the right (step down) to 23-Right and authorized to land on runway 23-Right, which runs parallel to 23-Left. The approach lights on 23-Left were on to help guide the Captain, even though regulations prohibit having the lights of a closed runway on. The two runways are 500 meters apart, and the start of 23-Right is 500 meters farther away as you approach the airport from the west. Runway 23-Right had no approach lights.

“Roger. We are clear to ILS to runway 23-Left,” the captain answered.

“Negative. 23-Left is closed. You should land on 23-Right,” the controller answered clearly.

“Roger.”

The controller should have asked for a read-back, but didn’t. The captain at this moment thought that he was cleared for landing on 23-left, the tower thought the captain understood he was cleared for 23-Right.

NOTAMS (Notice to Airmen, a bulletin) are posted daily describing the operating conditions of all airports in the world; these bulletins include information on lights, approach systems, guidance systems, radar, emergency equipment, capabilities, etc. of each runway. That day’s bulletin clearly stated that 23-Left of Benito Juarez International Airport was closed for repairs; it clearly stated that only 23-Left had approach lights.

“Do you have runway in sight?” Meaning 23-Right.

The DC-10 answered, “Yes.” Meaning 23-Left is in sight.

The controller asks, “Do you have all your lights on?”

The copilot answers, “Yes.”

The control tower radioed, “We can’t see you. If you can see the runway, and have your lights on, we should be able to see you. But we don’t.”

As the DC-10 approached 23-Left, the control tower saw the lights, and the controller advised him, “You are too far to the left.”

“Yes, we are a little bit to the left, but don’t worry,” the copilot answered. The air controller meant 500 meters to the left of 23Right; the co-pilot thought a few yards to the left of center of runway 23Left.

Silence.

The DC-10 landed on runway 23Left. Shortly after touching ground, the right landing gear slammed into a dump truck that was on the runway, killing the driver. With the impact, and not understanding the problem, the captain, instinctively and by training, pushed the throttles forward to maximum thrust and tried to go back up in the air. Planes are designed to fly, not to run crippled on the ground. The impact against the dump truck wrenched off the right landing gear, as well as damaged the turbine on the right wing. As a consequence, the DC-10 lifted up and veered to the right. At this moment, the captain must have seen 23-Right and realized his mistake. He probably would have lived another day if he had kept flying. These must have been the lights I saw briefly in the fog outside the airport as I stood smoking.

Instead, the captain, fatefully, decided to land on 23-Right. Moving at 180 miles per hour or more, the crippled DC-10 was brought down onto runway 23-Right. The captain was unaware that his right landing gear was missing. When the plane touched down, the right wing hit the ground and dug in. The jet veered sharply to the right, went off the runway headed toward some maintenance buildings next to the parking lot into which I was staring as I stood there smoking. The last words recorded by the black box were by the copilot, “My God, what a joke. We are going to die.”

As routine procedure, one hundred miles before starting descent, the Captain should have the copilot read the NOTAMS and communicate with Operations using company frequency (each airline has their own frequency) for additional information or special requests. Operations should, at this time, assign a gate for arrival and remind the Captain of any anomalous situations, in this case, that 23-Left was closed for repairs. On approach to the airport, last minute information is routinely obtained using ATTIS (airport terminal information service) frequency, which is specific for each airport. ATTIS gives local meteorological information, runways in use, and other important general information. On that day, ATTIS included the information that 23-Left was closed.

I was checking if any more passengers from the Mexicana flight were coming out, but my hopes were quickly dashed when I was informed that all the luggage had been picked up and there were no more passengers from that flight in the area.

I called my wife again, and she confirmed that Mitchell had boarded a plane in Fresno, to connect with the Western Airlines flight to Mexico City. "We have no confirmation that he did get on the plane in Los Angeles, but there is also no reason to believe that he missed the flight. He had plenty of time to make his connection. It is unlikely that he would have missed it," she said.

We both let this information hang in the air.

"It doesn't look good here, I'm sorry to say. I'll call you later, when I know more. I love you," I added as I hung up.

It was estimated that the DC-10 crashed into the building at over 100 miles per hour. The inertia of the huge airliner kept it moving forward. The left wing broke off, and as the fuel tanks ripped open on both sides, the fuel ignited. The fireball engulfed the airliner and continued moving forward with its own inertia across the parking lot. This is the fireball that I witnessed. The left wing was the wing I was standing on.

The tail of the DC-10 broke off, flew over the parking lot and crashed into a house on the other side of the parking lot, across the street, near where the fireball ended. Strapped inside the tail was a steward. He unbuckled his seat belt, jumped out of the tail section and started walking toward the lights of the terminal. This steward was the man I had seen staggering around the parking lot. He was flown back to the States on the first Western Airlines flight out. Of 79 passengers and crew, 11 survived.

I later heard on the TV that the two young men, the ones that rushed past me and ran into this fireball, climbed into the DC-10 as the firemen arrived to fight the fire. Inside the plane with the fire still raging, they located their mother and aunt, got them out and loaded them into the first ambulance that arrived. The women survived.

When the right wing of the DC-10 dug into the ground, the fuselage ruptured. One man sitting next to the right wing was ejected with his set of three seats from the airliner. He bounced on the tarmac as the DC-10 sped on its final journey. He unbuckled his seat belt, and without a scratch, walked away. He was arrested for wandering on the tarmac, a forbidden area for strollers. No one believed that he had been aboard the crashed DC-10. He was released later that evening after he was able to prove the veracity of his story. When I saw him on TV, because of the likeness to the man I had

met that morning, I immediately recognized him. He was the brother of the Italian who had been standing next to me on the wing.

Among the few survivors was a fireman. At the time he was studying to become a pilot. After the crash, the fire engulfed him and he wrapped himself in a blanket as he had been trained to do. He had burnt his hands badly undoing his seat belt. As he moved forward in the cabin he felt more heat, so, as he was trained, he retreated. As he did so, he fell out of the DC-10 through a crack in the floor. He was immediately pulled away by the firemen and rushed to the hospital in the second ambulance that left the scene. He spent nine months in intensive care. I heard his story many years later when he flew as a copilot with Mario, my friend, Captain for Aeromexico. The last I heard he had made Captain.

Not counting the Italian that fell unto the tarmac, sixteen people were taken alive in ambulances. By mid morning four had died. The next day, two more. Only three of the eleven survivors were not placed on the critical list.

After I talked to my wife, I proceeded to the Western Airlines counter. I was amazed no one was there. I yelled. When I got no response, I jumped over the counter and started knocking on a few doors. After all, one of their planes had just crashed. I thought that disregarding a few protocols would be appropriate on this occasion. Where was everybody? Finally, I got someone.

“In an accident like this, what is the procedure to reclaim a body?”

She looked at me in disbelief, “What are you talking about? I think you are mistaken. We’ve never had an accident in all the history of Western.”

“I hate to inform you. But if you walk half a mile, outside the terminal, you can see for yourself.”

She just stood there nodding her head in disbelief. It was obvious I wouldn’t get anywhere. I remembered that I had once accompanied my pilot-friend Mario to a room upstairs, a sort of a pilots-of-Aeromexico waiting room. I went in search of this room. Without much effort I found it. Here, all pandemonium had broken loose. People asking what happened, people asking how it was possible, pilots searching for explanations, pilots offering explanations.

I saw an older Captain who seemed to be just contemplating the situation, rubbing his chin. I introduced myself and explained to him my problem, which in a nutshell, was how and where do you reclaim a body from an airline accident. I didn’t mention the blackest thoughts that were crossing my mind: “What if there are no remains?”

He calmly said, “Don’t lose hope yet. I heard there are survivors. As to the empty counter, don’t worry. They are probably trying to figure out how

they are going to react, instruct their personnel on these issues, but eventually someone is going to have to show their face and start answering all your questions. I would hang out by their counter or try their offices in this upper level.” He pointed me in the direction of the offices. I thanked him. The hall was dark, the door closed, no sign of life there. I went back down to the Western Airlines counter. A few people were walking, loitering in front of the counter. Other relatives, I presumed.

As I sat there, still stunned, still trying to deny the facts, I thought about Mitchell. The day I met him he was seventeen years old. Ready to check out his sister’s potential (in his mind) boyfriend. He was 5' 11" and about 180 pounds of pure muscle with wide shoulders and a waist as small as mine; redheaded with intelligent, bright, olive-colored eyes above a crooked, toothy smile. He wore cut-off-jean shorts and a pair of black ankle-height boots, and no shirt. I was two years older, 5' 10" and 140 pounds. The forty pound difference was impressive enough, but not enough to intimidate me. Still he was harder and stronger than most men I had met.

Mitchell informed me, “I’m going to start processing some olives. Do you know how that is done? Have you ever seen an olive tree?” He was delighted at my answers; in both cases, “No.”

“Come, I’ll show you my tree,” he said as he spun and walked out of the garage where we had just met. There was another house across the driveway. I later found out that the milker lived in it. His responsibility was to milk twice a day the 120 or so cows that my future father-in-law had in production. Instead of walking around the house to where the tree was, as normal people would do, Mitchell stopped next to the house and turned his back to the wall. Then he gracefully jumped up, grasped an eave, and, in a combination of pull-up and a somersault, propelled himself upward and landed standing on the roof.

“Come,” he said smiling.

I considered my options quickly. I certainly couldn’t repeat what he did. So I narrowed it down to what was essential: what did he expect from me? “I can jump high enough so you can grab my hand and pull me up. I think you can do that easily. I’m only 140 pounds,” I taunted him. He thought an instant, smiled at my indirect acknowledgment that I couldn’t perform his feat, and at the fact that I was right, he could pull me up, and I probably could not pull him up. Either way, he had made his point; he was stronger than I. When I jumped up, he grabbed my hand and pulled me up unto the roof.

When I was standing next to him he didn’t let go of my hand. I could tell that he was pleasantly surprised at my agility and how high I had jumped;

how, with my other arm and the coordination of my body's movement, I had made the task of pulling me up so much easier. Without letting go of my hand he looked into my eyes and smiled. I smiled, staring into his eyes, wondering what it was going to take to have his approval to date his sister. Otherwise, I kept a poker face.

Fortunately, I found out in the next few days, Mitchell liked to play chess. And more fortunately, I played a little better than he, and could generally win. I smiled as I thought of his expression as he concentrated on the chessboard, especially when he realized that checkmate was inevitable. Through chess, I was able to quickly get some respect and approval from him.

"How could this guy be dead?" I thought. "If anyone could survive something like this, it should be him. He seemed to have been preparing all his life just to be able to walk away from something like this. He was the man that ran and swam with chains on. He was determined to get stronger every day. He was always doing things to improve his musculature, as if brute strength could save the day. The welder, the mechanic who could fix anything; intelligent, resourceful and curious. He certainly had enough charm to wiggle himself out of any fix. But no, not this time. This accident was too hard, too fast, no time to plot an escape No matter how strong he was, this was stronger." I was pulled from my thoughts as lights turned on behind the Western Airlines counter.

There were only a few people, waiting patiently for information, aware that, like us, the employees of Western Airlines were in shock. As unimaginable as this accident might be, it was part of aviation, so it seemed inconceivable that the employees not be trained to deal with a situation as delicate as this one. Then, again, maybe they had been trained, but as years had gone by without an accident, they forgot what it was they were expected to do. The small number of people waiting reflected the fact that only a small fraction of the 71 passengers were Mexican. The majority of passengers were Americans, with a few Canadians. If I remember correctly, there were eleven Mexicans on that flight.

We waited for the person-behind-the counter to speak. We were aware that she knew why we were there.

"We are currently waiting for the official passenger list."

It was a little after nine in the morning, more than three and a half hours since the accident. "They could have flown the information from Los Angeles in that time," I thought.

"We know that twenty-two people have been taken to hospitals. We do not know who or what hospitals. We are also waiting to find that out."

“How hard can it be to send a Western Airlines employee to each hospital and figure out who the three, four perhaps six or seven people arriving from this accident are?” I thought to myself. I sighed in desperation.

“We hope to know more very shortly. I will keep you informed as new information arrives,” she said with a smile. “I will be here all day and I will keep you informed. Thank you for your patience.” And with that she turned and left through one of the doors behind the counter.

Not one of us had been allowed a question!

A woman in her forties, visibly upset walked towards us. She was surrounded and followed by several family members, probably children and nephews of hers. As she impatiently checked the counter and me, I informed her of what had transpired. “She will be back soon. They are dictating by phone the names from the actual boarding passes. That takes some time,” I said as explanation.

A few minutes before ten, the Western Airlines representative returned to the counter.

“First, I would like to read the names of the few people that we have confirmed have been taken to the hospitals, and which hospitals.” She named six people placed in two hospitals. “We do not know their condition, but it seems we know their names because they have identified themselves.”

The woman with the entourage spoke angrily, “What about my daughter?” When can I get information on her?”

“What is your daughter’s name?” the woman-behind-the-counter asked nicely.

She was told. She proceeded to look at a piece of paper as if it were a crystal ball. After a few tense moments, she looked up and said, as if she were talking about some delayed flight, “We don’t have any information on your daughter. We are compiling a list from the boarding passes. As soon as we have that list, we will make it available to you.”

“Do you know how many passengers were on the flight?” I asked just to check if they knew anything.

“Seventy-one, and a crew of eight,” she answered crisply. “I think in about fifteen minutes or so the list should be ready,” she said by way of explanation. Then she left.

The entourage was trying to calm the mother. She kept mumbling and crying, “Why can’t they tell me? Why don’t they know? How is this possible?”

I felt for her, as the size of my own loss seemed small compared to hers. Seventy-one minus twenty-two equals forty-nine. There are at least forty-nine passengers dead. There was hope, as my friend Mario had told me.

During the course of that day, I would become intimately familiar with the names of all the passengers of that flight. I would know who survived; who died on the way to the hospital; who died in the hospital and in some cases which hospital. I would also become painfully familiar with the ones there was no hope from the start, those that were taken directly to the City Coroner from the airport.

At ten forty five, the Western Airlines representative came back to the counter. She looked around uncertainly. Her eyes fixed on a woman in her early thirties standing next to me. "There must be a mistake," she said directly to her. "Your name is on the list. You were not listed as crew either." The woman-in-her-thirties was obviously an employee of Western Airlines.

"It's my daughter. She was on the flight. She had a pass," she managed to squeak out. As this information sank into the woman-behind-the-counter's brain, the woman-in-her-thirties reeled and started sobbing uncontrollably, leaning against the wall for support.

The woman with the entourage interrupted brusquely, "What about my daughter?"

"Please have patience. Don't you see that she needs help?" she answered.

I wondered if the woman-with-the-entourage had done the gruesome math: twenty-two against forty-nine. The woman-behind-the-counter, in her officiousness, obviously couldn't connect the concept that there could be more than one mother losing a child. I guess she couldn't understand that probably everyone on that flight could have a mother.

"I am her mother; I have a right to know what has happened to my daughter!" the woman-with-the-entourage shrieked at the woman-behind-the-counter.

The woman-behind-the-counter motioned to one of her assistants to help the sobbing woman-in-her-thirties. "I know this is hard for you," she said turning to the woman with the entourage.

"No! You don't. You probably don't even have children!" she yelled back.

"I am, please, going to ask you to refrain from yelling at me. I am going to read the list of passengers I have. This is a provisional list. There might be some mistakes, and this list includes the passengers taken to the hospitals, minus the six that I read earlier today."

I could hear the assistant consoling the sobbing woman-in-her-thirties, "Maybe your daughter is one of the survivors; you can't rule that out."

"She's only twelve," she repeated disconsolately as if that were reason why she couldn't be a survivor. "She's only twelve."

The woman-behind-the-counter proceeded to read the list. They were not in any order I could discern. When she read the name of the daughter of the woman with the entourage, the woman collapsed on the floor, crying hysterically. No one could console her. Nothing could calm her down. I thought, as she probably thought herself, that she was going to die.

With fits and starts, the reading of the list resumed. During the reading the woman with the entourage cried, yelled and sobbed on the floor.

When the name "Mitchell Arias" was read, even though mispronounced, I felt a knife go through my head. "Forty-nine to twenty-two minus six," I repeated to myself with the increasing realization the unthinkable was possible.

Mitchell was dead.

Another woman brought a note to the woman-behind-the-counter. She read it. Looked up and beamed at us, as if she was the bearer of incredibly good news. "We have confirmed another six names of people in the hospital. These have been confirmed positively through identification carried on the persons. Again, I repeat I don't know their condition."

I guess it could be good news if your loved one was on that list. Mine wasn't. The odds were now sixty-one to ten that he was dead. Not good odds. My heart sank more.

"I'll be back as soon as I have more news." With this she turned to go.

"Where do we pick up the bodies? What is the procedure?" I asked, determined to see how much they knew or didn't know.

She turned before closing the door behind her, "I will find that out, and let you know."

Only the sound of the sobbing of the woman-with-the-entourage filled the air. Otherwise the airport seemed eerily quiet.

"How is this possible?" I thought to myself. "A few hours ago I was picking up my buddy, my brother-in-law. Mitchell is only twenty-six years old! He was coming to be with his sister when our second son would be born in a few weeks. He was coming to help me build my grinding plant. He was a very talented mechanic and welder, even before he was a helicopter mechanic in the army. What could I tell my wife? What could I tell Mitchell's parents? I had already talked to Enrique Gomez, our dear friend, who was with Pat. My sisters had already arrived there. Pat would be all right without me for a while. I should concentrate on reclaiming his body as quickly as possible and then doing whatever Mitchell's parents decided."

A doctor mercifully had put the woman with the entourage to sleep with an injection. She was sleeping on the floor next to the counter. The Western

Airlines employee, the woman with the twelve-year-old daughter had been whisked away by other airline employees.

The woman-behind-the-counter returned and announced, "The bodies are going to be sent for identification purposes to the Mexico City Coroner." She gave us the address and informed us that the process of identifying and reclaiming the bodies would start at 6:00 that afternoon. She identified one who had died in the hospital, three more names of injured people and the hospitals they were at.

There was nothing more for me to do there.

My wife, I found, when I returned to her side, was doing fairly well. Perhaps her pregnancy was shielding her from the terrible news. I sat down, held her hand.

I thought about Mitchell's invention. Inspired by observing the flight of insects, he had designed a propeller. He had given me a detailed description of it and had asked me to make some engineering calculations. The propeller consisted of two blades, 180 degrees apart. As each blade made a complete revolution, it would also turn on its axis 360 degrees, its movement mirroring the opposite motion of the other. My calculations, using classical mechanics, indicated that nothing would happen. Because the amount of air moved forward would equal the amount of air moved backward, there would be no net propulsion force.

More detailed calculations, which I was planning to do with him when he arrived, might yield some wobble effects. This could only be a problem producing vibrations in the bearings of the transmission. Mitchell, however, insisted that when you connected the propeller to a small engine and both to a boat, the boat would move forward without the typical wake normally associated with a boat's propeller. Even more interesting, he told me that if you held a lit cigarette in front of the propeller, the stream of smoke would be sucked into it, and emerged on the other side undisturbed.

"How could this be?" he had asked me enthusiastically.

Now, none of our experiments would come to be. At least not with him. Nothing with him forever more.

I reminisced with my wife about my first meetings with Mitchell at their dairy farm in Los Banos, California. The day after the episode with the olive tree, Mitchell told me, "We get ten cents for each magpie we kill. With two people it's a slam dunk; we can get 40 or 50 in a few minutes." He went inside the house and returned with a shotgun and some shells. He loaded the shotgun. "You are familiar with shotguns, right?"

"As a matter of fact, I have never shot one in my life." From the expression on his face, obviously, the wrong answer. I added as an explanation, "I grew

up in Mexico City. You don't use shotguns there. I'm sure it can't be too hard to learn, can it?"

He explained the safety lock, aiming, and pulling the trigger.

"What we are doing is very simple. You see that levee over there?" he said pointing to a small ridge with a few trees about two hundred yards away. I nodded. "Well," he continued, "I'll go around and come towards the ridge from behind. You hide here. I'll scare the birds, and hundreds of them will come flying in your direction. You wait until they are straight overhead and as quickly as you can, take two shots. The pellets should get at least 50 birds. The trick is to fire when they are flying exactly overhead." He set out in a trot to go around the levee. I waited as instructed.

Suddenly, hundreds of black birds start flying towards me abandoning the safety of the trees. I waited; I pressed the shotgun against my shoulder as I had been instructed. I pointed the gun straight up in the air and waited for the precise moment when they would be overhead. As they passed over me, I pressed the trigger. The recoil of the shotgun at the angle I used it bore into my shoulder with tremendous force. If it wasn't for the fact that I was in superb physical shape, it surely could have broken my clavicle. As it was, I wasn't really sure if I could move my arm. Still, I hit about twenty birds, which rained down on me.

Mitchell came walking towards me laughing his head off. I immediately understood the trap he had carefully laid for me. I proceeded to pick up the birds as if nothing had happened. When he reached my side, he was still laughing. In the most serious tone I could muster I said, "We should do it again. Look how many I got."

"They are gone. The birds won't congregate in those trees again for a few hours. It's not worth it. Let's go back to the house." As we walked home, he continued to laugh occasionally, as I pretended that nothing was amiss. I wasn't sure whether I had passed the test.

The next day, I got my chance to beat him at chess. I scored a few points with that, but I would soon be in another contest. Mitchell went to his bedroom and came back with a two pairs of boxing gloves.

"I think that we should go at it for a few rounds," he said, throwing a pair of gloves at me. I knew that what little respect I had gained from the chess match would dissolve quickly if I didn't agree. And so I found myself boxing with Mitchell.

Luckily, I was very fast and could get out of the way of his punches, but my forearms took a beating that would show the next day as black and blue patches of skin. But I survived the barrage.

Next day, after I beat him at chess again, he wanted to have another contest. This time it would be a race. We would run from the ranch house, down the gravel driveway, about a quarter of a mile, to the highway. He was barefoot, and I pointed that out to him.

“I don’t want to hear any excuses after I beat you. You better put on some running shoes,” I chided him. I was starting to think that perhaps he had trained for the four-forty race, the toughest there is, and that this was just another set up. I remembered, from my high school days, you simply go all out, and hope not to pass out at the end of the four-hundred-and-forty yards.

“I don’t need any shoes to beat you,” he said confidently. I was confident that I could beat him in the first two hundred yards, but after that it would depend on who was in better shape, and he was obviously in great shape.

We took off running. After the first one hundred yards, I was about fifteen yards ahead of him, and still pulling away. As I approached the halfway point, I started to fear seriously that I might pass out before I got to the end of the driveway. Then I heard Mitchell yell behind me, “O.K. you win. You win.”

The next day, after I beat him again in chess, it was time for a motorcycle ride. I basically decided to just hang on to Mitchell, close my eyes and trust him blindly. I hoped he knew what he was doing. He interpreted that as being fearless; a couple of more points. Another chess match, and I added a few more points. Eventually I scored enough points. We became very good friends. Soon, I would have to go identify his remains.

That afternoon, Rogelio, my sister Pelusa’s husband, and I arrived early at the Coroner’s Office for the gruesome task of identifying Mitchell’s body. His full name was Mitchell John Areias; he was twenty-six years old and single, with no children. Red hair, five-feet eleven inches tall, green eyes, one hundred and eighty pounds. Muscular and good looking. What else did they need? How many guys like that could there be on a flight?

There were many more people there that afternoon than in the morning at the airport. Some relatives of the Americans and Canadians had arrived that day, and more would come in the next. We proceeded to fill in some forms—these included physical description, clothing if known, jewelry or watches they were known to be wearing. I filled in the form as best I could.

The woman-with-the-entourage was arguing vehemently with some official, “I insist that I will go in and identify my daughter!”

He was gently trying to dissuade her, explaining that dead and badly burned or mangled bodies were not what she might want to contemplate.

Several volunteered from the entourage to do the identification. "I am her mother. It is my duty! It must be me, I need to go see my baby," she wailed in response. Nobody could dissuade her.

The official called one of the forensic team, who stuck his head out the door, and smiled. The woman was motioned to follow him. She disappeared through the door.

I tried to follow the paper trail, hoping that I could discover a quicker means to get in and be done with all this. I noticed a young man dressed in doctor's garb coming to the door occasionally. I approached him and introduced myself. I explained quickly that the sooner some bodies were identified, the fewer people they would have to deal with later. It would be helpful if he assisted the family members that were already present to start the process. More would be showing up as soon as they could. He warned me of how terrible the scene was. When I calmly assured him I could handle it, he asked for my paper work. "Follow me," he said. "There are only two redheads here; this should be quick."

The victims of the accident lay all over the hall and in a couple of rooms. Many were laid out on the floor. The smell of jet fuel and the sweetness of burned flesh assaulted my nostrils. It is a smell that I will never forget.

"We aren't prepared to handle so many victims at one time," he said as an explanation. The bodies lay in all possible states. Some with missing limbs, others, with fractures. Some badly burnt and mangled. Others with no burns, nothing more than crushed skulls. I noticed that most of the women had the tops of their heads pushed in. Most of the men, in contrast, seemed to have part of their faces, from the mouth up to slightly behind their hairline, smashed inwards. Young and old; women and men. Some of the bodies seemed so peaceful, as if they were just sleeping. When the young doctor realized that I could handle this Dantescan scene, he asked me, "Would you like to see the bodies of the guys responsible for this tragedy?"

I must have nodded, as he quickened his pace. I followed without thinking. There were two black charcoal lumps lying side by side. Each resembled a torso with a head. On what was the left side of the chest, you could see the metallic glimmer of a pair of wings. I don't know what the young doctor was thinking. To me it seemed another terrible loss.

"Well, let me show you the redheads," he said after an appropriate pause. I followed. The first redhead he took me to see was definitely not Mitchell. I shook my head. He took me to the next room. There, lying next to the wall was Mitchell's body. I remembered the strange detachment I had when my grandfather had died in my presence three years before. I had felt no

connection between my grandfather and his dead body. I was experiencing the same detachment. "This body is not Mitchell. It is the body that represented Mitchell," I thought to myself. I kneeled down next to him. A few years back he had caught his arm in a motorcycle chain as he made repairs on it. I turned his arm to look for the scar; it was shaped like a crescent moon. The scar was there. "It is my brother-in-law Mitchell," I said, intent on the official business of identifying a body as belonging to a certain person. Just a bureaucratic procedure.

"Are you sure? Look more closely. This is important," the young doctor emphasized gently.

I didn't need to see more, but I followed the forensic's instructions. On closer inspection, I saw he had fractured his left arm and leg, for sure the result of bracing himself for that final impact. From his nose up, his face had been smashed inward. There was no recognizable nose, eyes, or forehead. His mouth and teeth were the only facial features that were intact. I had no doubt that this fantastically well-built body was Mitchell; but from looking only at his face, I could not with any certainty identify him.

As I stood kneeling next to him, I looked for clues, anything about his last moments. I touched his body to see if maybe it would speak to me, tell me something, anything I could tell his sister, brothers and parents.

Today, after twenty-four years, I can still see his face clearly. There was no blood in his wounds. There had been no pain, but tragically, I could see the last frozen expression in his mouth, that of intense fear. I could not share this with his family. It would have to remain as a personal memory.

After a moment of respect, I tried to be somewhat casual, certainly more than I felt, about the whole affair.

"He died instantly." I said.

"Yes," the young doctor agreed. "He felt no pain. It was too quick. He didn't suffer. I can guarantee that." He looked at me kindly, then added, "Are you still sure it is your brother-in-law?"

"Yes, I'm sure."

He scribbled some things in a form, and asked me to sign it. He explained the procedure. A funeral parlor would take care of the body. In Mitchell's case, because he was a foreigner, the Mexican authorities were making the Social Security Funeral Service available at no charge. All that would happen tomorrow.

I walked out of there.

The woman-with-the-entourage was outside. She was explaining that, yes, her daughter was dead beyond a doubt. "I have positively identified my

baby. I am her mother after all. I know my daughter better than anyone. She is coming home with us right now. They told me we could take her whenever we want." I hoped her daughter was one of the beautiful young women I had seen with hardly any injuries or burns.

The next day when I came to make sure that Mitchell's body was being taken care of properly, I found out the following: early that morning, the daughter of the woman-with-the-entourage arrived in Mexico City from Los Angeles. Her ticket said clearly that she was arriving in Mexico City at 5:28 a.m. on October 31. She had thought that she was boarding the plane, on October 31, but this daily flight was scheduled to depart at 11:58 p.m. the previous day. She had missed her flight by twenty-four hours.

Somehow she hadn't heard any news about the plane accident during that next day. At the airport in Los Angeles, naturally, no one talked about the accident of the previous day. Upon arrival in Mexico City, she, of course, was very surprised to see that no one was waiting to pick her up. So she hailed a taxi and went home. When she arrived at her house, she realized why no one had gone to the airport. There was a funeral and a wake going on.

"I wonder who died?" she thought.

Even at this early morning hour, as the sun was just starting to rise, many cars were parked outside and people talked in hushed tones on the driveway in front of the house. She proceeded to walk unnoticed into her house. I can't even imagine the commotion when someone saw her alive. The body that had been taken the night before was returned to the Coroner's with the finest dress of the girl-that-had-just-walked-into-her-own-funeral. I felt very happy for the woman-with-the-entourage. So much for how well that woman knew her own daughter's body!

Her name hadn't been erased from the reservation list and somehow stayed on the passenger manifest. This young woman had missed her flight accidentally and lived. Mitchell didn't miss the flight and died.

The Mexican Government assigned an agent to help me expedite all the bureaucratic paperwork to take Mitchell's body back home to California. His was the first to leave Mexico. There was some consolation in that fact. I had done all the red tape as quickly as possible. I had done all I could.

The next day my wife, eight months pregnant with our second baby, and my son Freddy, not two years old, boarded the same plane that was carrying Uncle Mitchell home. We were going to his funeral.

I returned to Cuernavaca after his funeral, but my wife remained in California for our second child's birth. Our Mitchell was born around noon on November 23, 1979. I was there to witness his first breath.

A few weeks later I was returning home from work in Cuernavaca, Thanksgiving Day. In Cuernavaca, Thanksgiving had no particular meaning. I was alone. My wife Pat, because of her advanced pregnancy, was not allowed to fly and had stayed in California with my first son Freddy. Western Airlines, as a courtesy, was flying me back to be with my wife in a few days. It was about 5 o'clock. The phone rang. I answered, "Hello?"

"Fred, it's me," my wife Pat said with her distinctive voice. She was in Carmel at her mother's with Freddy-boy, our first-born. She was expecting our second child any moment. "How are you doing, babe?" she asked.

"I'm fine. How about you? How is Freddy?" I was planning on flying in two days to be with her. We were planning to have another home birth; Pat insisted on it, and her mother seemed fine with the idea. After having assisted her in the birth of our first son, I wasn't overly concerned either. I had read, and now re-read a number of books on the subject. I was familiar with all the procedures, with different heart rates, the baby's and the mother's, contractions, dilations, and complications. And most importantly, Pat would be only five minutes away from the Monterey Community Hospital in case of any emergency.

"That's why I am calling. I have some abdominal pains."

"Are you sure they are not contractions?"

"It feels like pain."

"Are you sure?"

"Of course I'm sure. I know what a contraction feels like. This is high in my abdomen, above my tummy. I called the midwives, but being Thanksgiving, there is no one home. I was calling to let you know I have decided to go to the hospital. I think I need to have this pain checked. I cannot go through a home birth if you're not with me. I don't think it is wise. Not with this pain"

"I agree. Are you going to the Monterey Peninsula Hospital? Is your mother going with you?"

"Yes. But I feel bad, because we were just sitting down to Thanksgiving dinner, and now I have to go to the hospital."

"Don't feel bad. I'm sure everyone understands. Let me check on flights. I think I can make it to be with you. Hang in there. I'll be there soon. Who is staying with Freddy?"

"Don't worry, everything is taken care of. Just get here fast. Oh, I'm feeling the pain. I don't remember my contractions feeling like this. This is different, don't fret."

“I’ll get there as soon as I can. Love you, bye.”

I immediately called Western Airlines. There was a flight leaving Mexico City for Los Angeles in two hours, with a connection to Monterey arriving at eleven o’clock that night.

“I’ll be there in an hour and a half.” I told them. I hung up, packed, jumped in my car and drove to Mexico City, left my car at my sister’s and had her take me to the airport. I jumped on a DC-10 to Los Angeles with twenty minutes to spare.

Pat’s complaint gave me pause; what could this pain be? I was estimating how many hours before my second child would be born if everything went fine. When Freddy-boy was born, his mother had been in labor for about eleven hours. With a second child, five or six hours might be reasonable. It could be more, it could be less. Whether I was going to make it to the hospital in time to witness the birth of my second child was becoming a long shot. But with a little luck . . .

Bad luck: I arrived in Los Angeles only to find out that my flight to Monterey had been cancelled. I would need to spend the evening in a hotel near LAX. The earliest flight the next morning was at 9:15, arriving at 10:45. There was nothing I could do, but worry. I called Carmel and my brother-in-law Mark answered the phone. He was taking care of Freddy and informed me there was no news from the hospital. I gave him the details of my arrival next morning, then talked to Freddy-boy. He was almost two years old, but he could talk a little on the phone. I thought he was a genius!

I woke up the next morning thinking that for sure I was a father again; that I had missed my baby’s birth. Then I remembered Pat’s pain. Hopefully it would be nothing. I ran to the airport, got on my flight and was happy to see Mark waiting for me at the Monterey Airport.

“Let’s hurry. As far as I know they have just taken her to the delivery room. I think you’re going to make it,” Mark said after exchanging greetings.

I was scrubbing off as instructed by a nurse when a doctor walked in and started scrubbing next to me. “You must be the father. Pat’s husband?”

“Yes. That is I.”

“I’m Dr. Fuerstner. I’ll be assisting in the delivery. Your wife made it clear that she wanted a natural childbirth,” he said, looking into my eyes for a reaction.

“What about the pains she was having yesterday?”

“I was worried about a possible separation of the placenta from the uterine wall, but she’s doing fine. Everything seems normal. It should be about half an hour more.”

We finished scrubbing and walked over to the delivery room. Pat was lying on her back with her feet in the stirrups in the middle of a contraction. I rushed to her and held her hand. She smiled in acknowledgment. She proceeded to burp, it smelled like sausage. She burped again. When the contraction was over I asked, "How are you doing, honey?"

"I'm fine. Last night when I got to the hospital my pains stopped. I guess I was waiting for you. But they wouldn't let me go home. They put me in a room for observation. They wouldn't feed me anything. It was terrible. They told me I could start labor again any moment, and it wouldn't be good for me to have a full stomach. And you know me, I'm always hungry." I cleaned the sweat off her face as she continued. "I was starving this morning when I felt a contraction. It was probably around seven. A nurse came in and asked me how I felt. I said fine, that I was starving and could she please get me some eggs and sausage. I didn't tell her about my contractions for fear that they wouldn't feed me. There was no way I was going to deliver a baby without eating first!"

"Don't worry, you're doing fine," I assured her.

"No, I've been burpin' sausage all morning. It's awful." Another contraction silenced her. Another burp.

"I see what you mean," I said as I smelled the sausage. "Breathe in. Breathe out. That's it. You're doing great. Breathe in. Breathe out."

"Doctor, that really hurt. That last contraction. Can't you give me something for the pain?" she said as she tried to get her breath back.

"It's too late for that. It wouldn't do any good. Just one or two more contractions and it will be over. The baby will be born before anything will take effect. You're doing great," he replied. Then applied a perineum massage to widen and stretch the birth canal.

Two contractions, two more burps, and our baby's head was out and breathing. Mother and child breathing in unison for the first time; he was breathing, huffing and puffing like a newborn bull. A burp and one more contraction later, and the baby was out. "Congratulations, it's a baby boy. The umbilical chord is very short. I am going to have to cut it before I pass him to you," the doctor said. An instant later he laid the baby on Pat's stomach, the two of them no longer joined by the umbilical chord.

Pat put her hands around his little body and said with a smile, "hi, Mitchell." She turned to me, "I knew it was going to be a beautiful baby boy." Indeed he was.

It was slightly past noon, November 23, 1979, and I had made it in time to witness my son's first breath.

Monterey Herald November 15-17, 2002.

Mitchell Xavier Sanchez Areias

Mitchell Xavier Sanchez Areias, 22 died on Tuesday Nov. 12 in New York City. He was born November 23, 1979 in Carmel and raised in Cuernavaca, Mexico in his golden youth. He then moved to Carmel Valley with his family.

Mitchell attended Carmel Middle School, was a graduate of Robert Louis Stevenson School and received his B.A. degree in International Studies from U.C. Santa Barbara in June 2002.

Aside from working in the family business, Mitch was a musician, composer, skateboarder, poet, salesman, surfer and builder of dreams and flying machines. He was a man for All Seasons and dearly loved by all that knew him.

He is survived by his mother and father, Patricia Areias and Federico Sanchez; his brother Fredrick, his grandparents Carol Areias and Poul Pederson, Margaret Seabrook and Xavier Sanchez Cos; his uncles and aunts, Laurie and Larry Areias, Mark and Roxanne Areias, Pepe Perez Gil, Alexandra and Rogelio Guerrero, Susana and Othon Roffiel and Xaviera Sanchez.

A Memorial Service will be held at the Church in the Forest at Stevenson School on Sunday, November 17 at 11:30 a.m.

The family suggests that any memorial contributions be made to the Suicide Prevention Service, PO Box 1222, Santa Cruz, California, 95061.

I was in our home in Carmel the morning after I heard that my son Mitch had died. I suddenly felt an urge to go out to the courtyard. The courtyard is square-shaped with a circular fountain in the northeast corner. Each side is about thirty-six feet long. The courtyard is surrounded on two sides by our house, on the west side by the garage, and on the north side there is a wall about seven feet high looking up into a hill full of oak trees. It is a very cozy, secluded spot.

When I stepped outside, a shadow fell over me. I looked up. A Red-tail Hawk was leisurely circling around me, inside the courtyard, with his wings spread wide. I could almost touch it. The hawk silently glided around me nine feet off the ground, without flapping its extended wings. Its golden

eyes locked intently on mine. I don't know if hawks can smile, but this one seemed to be smirking, like Mitch used to. I turned slowly in place three times looking into its golden eye, following the hawk's flight, just out of reach. I felt a strong connection with the majestic bird. I extended my hand inviting the hawk to come closer but suddenly it beat its powerful wings and quickly disappeared over the trees on the hill.

I felt a deep sadness overcome me. I wished with all my soul the hawk would come back. And suddenly, it did. The hawk flew back over the trees, this time circling about fifty feet above me. It circled three times again, gliding without beating its wings, and then it flapped its wings vigorously and soared. It simply flew straight up. Swooooooosh, higher and higher in the sky. As it flew higher it got smaller and smaller, until it went so high, the hawk disappeared. And this time I knew he wouldn't come back, but I kept staring into the empty sky.

The following Sunday there was a memorial held for Mitch at The Church in the Forest. The setting itself is a beautiful Church. The ceiling is about thirty feet high. The wall behind the altar is all glass looking into the Pebble Beach forest. The Church was filled to capacity including all the standing room. Extra chairs were brought in to accommodate all.

Reverend Gutenberg did an Invocation followed by the twenty-third Psalm from the Old Testament.

Even though I walk through the valley of the shadow of death, I fear no evil; for though art with me; thy rod and thy staff, they comfort me. Thou preparest a table before me in the presence of my enemies; thou anointest my head with oil, my cup overflows. Surely goodness and mercy shall follow me all the days of my life; and I shall dwell in the house of the Lord for ever.

Then I Corinthians 15 from the New Testament, "The spiritual man judges all things, but is himself to be judged by no one." An continued with a quick review of Mitch's life.

The tributes that followed clearly reflected the wide range of Mitch's intellectual and artistic pursuits, and also spoke of his noble spiritual inclinations. The memorial was an uplifting experience. But, what made him so special, to me, was that he was my son.

After the memorial, my wife Pat invited all who wanted to join us for lunch at our home. Uncharacteristically for that time of the year, it was a beautiful afternoon, and it stayed warm well into the night. Friends and family surrounded us. We fed more than three hundred and fifty people that afternoon, and it is a testimony to our friends that all this was accomplished without my knowing exactly how.

Many of Mitch's friends recounted memories and told Mitch stories. I was amazed at how many people knew him. Every age group was represented.

I addressed my sisters and wife that afternoon and told them, "In a strange way, today, I felt better." We embraced and cried.

R.B. a dear friend of my two sons, Freddy and Mitch, had made a beautiful videotape of Mitch practicing skateboard moves. We played the videotape in our large living room. Mitch was filmed falling several times as he attempted each complicated maneuver, involving moves with names like a varial flip or a double kick flip, until eventually, he was shown mastering these very advanced skateboarding tricks. The video's soundtrack was composed, performed and sung by Mitch. We had several showings of the tape so everyone could see it.

That afternoon, a woman approached me in the kitchen. She said to me, "You don't know me, and I didn't know your son. My son was a friend of Mitch's and he called me. Since he is away and couldn't go to the Memorial, he asked me to go in his place. There had been a very gray cloud hanging over my life and during the Memorial this cloud was lifted. This terrible darkness was replaced by light! I wanted to share this with you, but I couldn't bring myself to come and invade the privacy of your house. So after the memorial I decided to go home. As I was driving a hawk started flying right in front of my windshield. At that moment I decided to turn around and come here and share this with you. That is all. Thank you. I should leave now."

"You can't go yet," I said. "You must stay another fifteen minutes, at least, please," I said as I led her out to the back terrace that overlooks Carmel Valley. Our house is a beautiful adobe Mexican-style house wrapped around a hill with spectacular views of the Valley.

I had hired, with the help of Gary, a very dear friend, a helicopter to come over our house and fly around the property three times to symbolize the flight of the hawk, as well as to pay tribute to my son Mitchell's dream of building a helicopter. Coincidentally, I also thought back to Mitchell, my wife's brother, who died in a plane accident shortly before Mitch's birth. As a young man he had joined the army to become a helicopter pilot. That had been one of his dreams; unfortunately the army recruiters misled him. They forgot to inform him that he needed a college degree to be a pilot, so he only had a chance to work as a helicopter mechanic. I thought the symbolism would be fitting to include my son's uncle, after whom he was named, and with whom he had so many things in common.

At three o'clock, the designated time, the helicopter appeared in the distance flying in the middle of the valley toward us. As the helicopter slowly

approached, overhead and from behind us, a hawk suddenly appeared flying at full speed, racing towards the approaching helicopter as if to greet it. For a moment it seemed that the hawk would fly into the helicopter, but it passed about three hundred feet below it, and then turned left toward the neighboring hill. As the helicopter circled over us three times, the hawk made three big circles above the hill to the east of us. As soon as the helicopter finished its three circles and headed west, into the sun, the hawk flew east, and disappeared over the hill. The woman smiled at me, nodded knowingly and after I smiled back, she left.

Later in the afternoon, a man approached me and said, "I want you to know that the hawk that greeted the helicopter was a blue tail, not a red tail hawk."

"Yes, I know," I responded amicably. "That was the other Mitch, his Uncle Mitchell not him," I smiled enigmatically, turned and left him standing in the beautiful warm afternoon.

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The hardest and most terrible thing I have ever had to do in my entire life was to inform my son Freddy that his brother, my other son, Mitchell, had died. I didn't have any explanations about what happened to him. Mitch was dead; he had committed suicide, which is all I knew. I could offer nothing more.

When I think about Mitch's death, I was accosted by a multitude of questions. Even though you know that this is a futile exercise, inevitably you look inwards to try to find what you could have done differently, the questions flying uncontrollably through your mind.

I had promised Mitch, that in time, we could find the answers to his problem. Initially, the question was only an explanation and perhaps a solution to panic attacks and maybe depression. Now, suicide was also a part of the inquiry.

Because thoughts and happiness exist as part of the physical world, we should be able to understand their true nature. My personal knowledge of my son gave me a small glimpse into parts of the puzzle. Ultimately, the last intimate thoughts and feelings of someone who has died are unknowable. I would need to frame my ideas inside a scientific theory. The problem, at first glance, seemed insurmountable, but I believed we have learned enough to start unlocking the secrets of the brain.

The quandary of the mind/brain is a most baffling and difficult one. As Kay Jamieson says in her book "*Night Falls Fast*", "*One hundred billion individual*

nerve cells—each reaching out in turn to as many as 200,000 others—diverge, reverberate, and converge into a webwork of staggering complexity. This three pound thicket of grey, with its thousands of distinct cell types and estimated one hundred trillion synapses, somehow pulls out order from chaos, lays down the shivery tracks of memory, gives rise to desire or terror, arranges sleep, propels movement, imagines a symphony or shapes a plan to annihilate itself.”

There are more than sixty known neurotransmitters, and about fifty different types of neurons, with an enormous number of interconnections. To be able to fully understand how the brain generates thoughts, feelings and actions seemed overwhelming. Yet, I felt confident that a general, overall theory of how the brain works was within grasp. And to understand a disease you have to understand health. To understand madness, you have to understand how even the healthy brain creates the illusion of self, so it can navigate in a seemingly continuous fashion through life.

I became interested in the problem of the mind/brain back in the seventies in my college days at Tufts University when the first ideas on Artificial Intelligence were being conducted on the newer, more advanced computers. For example, computers were programmed to play chess. Yet, years later, chess masters invariably beat the computers. The most famous example is the match between Big Blue and the indisputable, best chess player in the world, the Russian Gary Kasparov. Kasparov lost the first match, the second match was a draw, and then Kasparov started winning. Later he recounted that once he realized Big Blue had no fear, he changed his strategy accordingly. In this instance, fear obviously has a healthy role. In the rematch, after Deep Blue was retooled, taking fear and other factors into account, for the first time, a computer consistently beat the world champion.

Inevitably, anyone with a serious interest in artificial intelligence turns to the human brain for inspiration to accomplish what seem to be simple, almost automatic tasks: translating, interpreting written or spoken language, “seeing” in three dimensions and coordinating a physical movement like picking up a wrench and tightening a bolt. Many other tasks, thought to be very simple, like recognizing a face in a picture, remain unsolved

In the seventies, there were only a few popular books that dealt with neurons or the brain, simple descriptions of the anatomy, a few good guesses at how or where things happened. The subject remained an interest of mine, when from time to time I would find a book on the brain, neural networks or artificial intelligence. Little by little, as the years went by, more and more scientific studies and observations were coming in, and by the late nineteen nineties, there were a whole slew of books published on the matter.

When my son Mitch first showed signs of mental illness and the doctors that saw him couldn't help him, I turned back to this intriguing subject, hoping that I could find an alternative solution to his problems. I had believed that the medical community would have a standard approach to these issues; and I trusted, mistakenly, that if the few doctors that had seen my son couldn't help him, most others wouldn't be able to do so either. Such an approach was unfortunate, because since then, I have realized that many doctors, like engineers, architects or lawyers, are incompetent, but not all; I should have learned at least enough to determine whether a doctor was inept by understanding the standard materials that were available. It was regrettable, because if I had learned more about the "standards," I would have been more aware of how huge and dangerous the problem could potentially become. The doctors didn't even try to educate my wife and me on the seriousness of these issues. I wasn't aware that certain situations can cascade and deteriorate rapidly, and I was lulled into a false sense of calm by the fact that Mitch seemed, most of the time, to be just fine.

And so, at a leisurely pace I spent my time studying various books on different approaches or from various perspectives of how the brain works: how we use symbols, where we store some types of memories, why we feel, how language might evolve and so on. I was hoping that perhaps, I could find some insights so I could help Mitch. I had a few ideas, but nothing solid. Regrettably, Mitch generally didn't want to discuss them. I often wondered whether he didn't want to hear that he was sick; perhaps, I hoped that he truly wasn't sick anymore, and was simply not interested in the subject. I do know for most of the last five years of his life he was not depressed, he was well, as well as most of us. He perhaps suffered a few panic attacks that neither his mother nor I were aware of, but there couldn't have been more than three or four besides the five that we knew of or witnessed. He seemed almost O.K. The difference between life and death clearly depended on knowledge, on a deeper understanding of the problem. Ignorance was clearly a factor in my son's death.

As I searched for answers to the previously unthinkable, memories of Mitchell's and my own life intruded as I searched for clues of how the brain works. Inevitably I would lock into emotionally salient events or out of the ordinary experiences. Strangely, these memories felt as if they had occurred very recently. I didn't understand that my struggled to remain in contact with Mitchell after his death was just part of the grieving process.

Love in Various Forms

What attracted my attention was the way he was walking. When you have children you can't be careful enough, accidents happen. These can vary from small cuts or bruises to serious injury and even death. My son Mitch was about six years old. He was in the back yard of a friend's house in Cuernavaca. It was around noon, and he was making his way, little by little towards the house shaking his head slowly from side to side, occasionally looking up and gritting his teeth. With his left hand he held his right wrist tightly, palm up, and slowly moved it up and down as he opened and closed his right fist. Something was wrong. I ran over to him. He was trying unsuccessfully to hold back some tears.

"What happened?"

"I was stung by scorpions," he said between clenched teeth.

"Are you sure?"

"Yes. I know how it feels—from the last time," alluding to the fact that he had been stung a few months before. "I was stung several times."

"You mean two or three times?"

"I'm not sure. Maybe five or six," he said, trying not to cry, as he extended his hand for my inspection. I couldn't see anything.

"Can you show me where this happened?"

"Down there," he said pointing down the sloping lawn of the garden.

I followed him and he looked at a cement cover in the ground, an electrical register for the garden illumination.

"I wanted to see what was in there. I was stung when I tried to lift the cover." I moved to pry the cover open. "Be careful, father. There are a lot of scorpions in there."

I proceeded to lift the cover with the aid of a stick, in case the scorpion was still there. Not one, but seven blonde scorpions, about three inches long, were moving about inside the register with their tails in the air ready to strike. I put the cover down immediately.

"How are you feeling, Mitch?"

"My hand is burning," he said as he opened and closed his small fist, "and I feel a pain coming up my arm all the way to my shoulder."

“Can you swallow?”

He nodded.

“Come let’s go to the house.” I picked him up and carried him up the sloping garden.

“I feel like hair in my throat,” he cried, as the effects of the poison constricted his throat.

“Don’t worry. You are going to be fine.”

“Now it hurts to swallow,” he sobbed.

As soon as I got to the house I informed my host of what had transpired. He quickly went to the refrigerator and served Mitch a glass of milk. Then he got a pack of Avapena, an antihistaminic.

“Take this pill, Mitch.” I handed the pill to him and helped him wash it down with milk.

“He’ll feel bad for a couple of hours, probably develop a fever, but he should be fine by this afternoon,” my host said. “There are a lot of scorpions around here; this pill is the best for this. We’ll give him another one in a few hours depending on how he is doing. He has been stung before, so he might have developed some resistance to the venom.”

“I feel hot, father.” Mitch added, “I want my mother.”

“How is your throat?”

“It feels a little better,” he added optimistically.

I passed Mitch to my wife. She took him into a bedroom and lied on a bed with him and scratched his back. This was always soothing and comforting for Mitch. About half an hour later he was sleeping. We stayed with him observing him as he slept, making sure he was breathing evenly. I checked his forehead. He had a slight fever.

As I sat there, I couldn’t help thinking how Mitch, as a young child, seemed to be more prone to accidents than normal. When he was learning to walk he banged his head with the furniture; when he was a little over a year old, he tripped and knocked out his front baby teeth. Thinking back, years later, shortly after his permanent teeth came back in, he knocked out his left front tooth again.

Once, our gardener had burned some dry leaves and garden waste in our back yard and left a pile of soft, hot ashes, unbeknownst to my wife and me. Mitch, a little over a year old, was walking bare foot on the grass in the yard. He got to the edge of the pile of ashes, and must have felt a nice sensation as he dug his toes into the soft, warm ashes. However, as he moved toward the center of the pile, there were still some hot coals and he burned his foot. He jumped up and down screaming one of his first words, “Hot, hot!”

My wife's brother Mitchell loved to go running and swimming and bicycling. He had always been a physical fitness buff. My wife, Pat, after a visit to California, brought her brother's ten-speed bicycle back to Cuernavaca. The bike was in good shape, except that it was missing a rubber protector on the end of one of the steel handles.

A few months after Mitch had burnt his foot, he was playing in the yard. As usual he was in his underwear, enjoying the hot midday weather. Apparently, Mitch pulled the bicycle over, and as it fell, the handle, with the sharp steel edges, cut through Mitch's exposed, left chest. My wife heard him yell, found him with a big gash on his chest, called my sister Pelusa, who lived nearby and rushed Mitch to the doctor. The doctor neatly sowed his chest, which healed into a nice slanted scar.

As Mitch slept, I fondly touched the scar on his chest. I thought I should learn to take better care of him. I also felt he would, inevitably, like all of us, learn to take care of himself. He woke up later in the afternoon and aside from a very sore right hand, he was fine. I breathed easier. For the rest of his life, Mitch continued to do risky things, to push the envelope, but as far as sustaining physical injuries or accidents, he was quite average.

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When I first met my future wife, she was committed to pursuing her own aspirations; so she was not interested in committing to a long-term relationship. She joined the Peace Corps and went to Ecuador, while I went to Tufts University in Medford, Massachusetts. She believed in some aspects of the flower-power philosophical movement, which were vague enough, but did include the notion that too much industrialization was the cause of many of the evils of the world. She argued adamantly that we, the privileged ones, should volunteer and go help the poor of the world. She did that, while I quietly got a formal education.

A few years later, after we were married, partly because of her beliefs, I chose to go to a rural area of Mexico, where through starting a small business using the principles of "Small Is Beautiful," I hoped to help, if not the poor of the world, the poor of this area of Mexico. I was twenty-eight years old; we had a small child, our first son Freddy, and another, Mitchell, on the way. In this manner, I hoped not only to make a good living for me and my family, but also to gain high standing in my wife's eyes: doing something about the poor instead of just talking about the problem. I went to Huajintlan, a small town in the state of Morelos, nestled next to the Amacuzac River.

Many years before, my father had studied the possibility of making Portland Puzzolanic Cement. A geologist had come to him with discoveries of deposits of volcanic ashes he had made in the vicinity of Huajintlan. My father proceeded to file some mining claims.

Adding finely ground naturally occurring volcanic ashes, of the right chemical composition, with regular Portland cement, makes Puzzolanic Cement. Puozzoli, Italy was the first known locale where these volcanic ashes were used in a mixture with hydrated lime for construction purposes; hence, Puzzolanas is the name given to these volcanic ashes.

After a few quick trips to the Mining Ministry, I was able to locate my father's old mining claims. I then went to Huajintlan and arranged with the local people to mine and process this material. I designed and built a small grinding plant there, using mostly the labor of the local peasants. I trained some of the young men to become welders, mechanics, and electricians.

Huajintlan lies in a valley at about four thousand feet of altitude, directly south of Cuernavaca. The weather there is for the most part tropical; it has warm nights, in the eighties all year round; in the daytime, temperatures easily reach ninety to one hundred degrees, especially late in the afternoon. It rains about one hundred and eighty inches during the rainy season, typically running from June to September.

The town of Huajintlan was organized into an Ejido after the Mexican Revolution of 1910. The Ejido had about 1100 hectares, divided among 180 peasants. An Ejido is a communal farm, where the farmers that cultivate the land have the right to the product of the land. However, they do not own the land, but because of that they do not pay any land taxes either. Each Ejido has the right to organize itself along any lines the members wish. Huajintlan had been organized along the most communistic ideas of the period. Every decision had to be approved by two-thirds majority. Every man had access to the same amount of land. The exception was a small acreage of about 200 hectares that were irrigated by means of a canal that had been built through a mile-long tunnel in the mountain that fed water from above the Amacuzac River into this low lying area. In this irrigated area, three crops a year were possible. In the other parts of the Ejido, only one crop was possible during the rainy season. Therefore, the founders of the Ejido, in their attempt at fairness, made a hectare in the lower areas equal to three hectares in the upper areas. This proved to be unwise for the most part because of yearly variations in rainfall. In dry years the yield in the higher areas was less, and in very wet years part of the crop could be lost because it could not be harvested on account of the mud.

I had to have widespread dealings with the Ejido to rent the land on which I was building the plant, as well as extensive negotiations with them about exploiting the volcanic ash that was found in abundance in their lands. Wherever this volcanic ash was close to the surface, the ground was completely sterile. For them, as farmers, these deposits were a nuisance; therefore I had thought that my dealings with them would be quick and simple. I naively believed that the roads I would need to build to have access to the Puzzolanas and the actual removal of these ashes would be beneficial to the farmers, not to mention the financial benefits I was offering them in the form of royalties. In retrospect, considering that I was dealing with a communistic society where two-thirds majority is needed to decide anything, it is amazing what I did get done.

One of the first things I needed to do was hire a night watchman to look over the construction materials and the steel out of which the plant and our machinery would be built. One of my first local helpers, Pascual, a smart young man slightly older than I, recommended an uncle of his for the night watchman job. This is how I came to meet Tonito. I'll never forget the first time I met him: he had a very bad eye infection; his left eye was closed with dried puss on his eyelashes; his pants were held up with a rope; his shirt was in tatters; and he was barefoot. He told me he was sixty years old, a lie as I found out later; he was more like seventy years old, but he thought the Mexican laws didn't allow you to work if you are over sixty-five. In the Social Security's wisdom, people over sixty-five are supposed to be taken care of, except, of course, when you haven't worked. Tonito told me that he had lived in the area all his life and knew everyone. This, he seemed to believe, qualified him to be my night watchman. Since I was there, among other reasons to help the poor, I hired him. The first thing I did was enroll him in the Social Security program so he could get medical attention for his eye. A week later, I was amazed to see that he used his first paycheck to buy a belt and some shoes, as they probably cost him the entire paycheck. Once he had shoes and a belt, and felt more presentable, he walked over to me and asked, "When am I getting a gun or a rifle? If I am responsible for protecting the plant, I need a weapon."

I responded cautiously, "Tonito, I hired you because you know everyone locally. If someone comes here at night and wants to steal something, you just simply get out of harm's way and you tell us who did it the next day. Then we'll let the police take care of them. I really don't believe that someone from the outside is going to come to this forsaken place looking for something to steal."

After a brief moment, Tonito nodded and smiled; he liked my logic.

A few weeks later as we were building the foundations and retaining walls of the grinding plant, late in the afternoon, I gave the instruction to cover up the cement bags with a tarpaulin, as there seemed to be some indication that the first showers of the rainy season might start. Tonito was just showing up for his night shift, and he walked over and said to me, "That is not necessary, tonight there will be no rain." I nodded, but did not countermand my previous order. I did check the next day if it had rained, and indeed it had not.

A few days later, as we finished work, the sun was out in all its glory and I didn't even consider that I needed to worry about the cement bags. Tonito, however, came over and said, "We need to cover the cement bags. It is going to rain very hard tonight." I looked at him skeptically, and he repeated, "Believe me. It is going to rain very hard tonight; if you don't cover them, they will be ruined—the cement bags." I turned and gave the order to do as he suggested. And, indeed it rained very hard that night, just as Tonito had predicted.

Now, that the rainy season had started, it would be almost automatic that it would rain every night, at least a few inches. Next day I gave the order to cover the cement bags, and again Tonito came by and said, "No need to do that. There won't be any rain tonight." There were only a few bags left, and if they were spoiled, it wouldn't amount to much, but in proportion to Tonito's salary it would be a huge loss. He seemed very confident so I decided to follow his advice, sure that the next morning I would be down a few bags of hardened cement. But it did not rain! When he showed up the next afternoon, he could sense that I was looking at him in a different way. He approached me, and as an explanation to my thoughts he said, "It won't rain tonight either. This rainy season is going to be very dry, perhaps just a little more than half of what we normally get."

I fell into a game with him, in which he predicted rain or no rain for the next three months with one hundred percent accuracy. One morning I thought I had him; I was driving down the highway towards the grinding plant, and you could tell that it had been raining heavily because the pavement was sopping wet. Even though I faced the prospect of some hardened cement bags, I couldn't prevent a small grin as I imagined Tonito's expression at finding the cement bags ruined because he had predicted no rain. About half a mile before the plant there was a sharp curve in the road, and after turning you could see the plant from the road. What can I say: four hundred yards before the plant, the pavement went from sopping wet to absolutely dry. Not one drop of rain fell on the grinding plant or the cement bags!

Meteorologists can predict rain with about the same accuracy as predicting heads and tails when you flip a coin, but here was a man who could neither read nor write, who had never gone to school, yet he could predict, not only the rain in the next twenty-four hours, but the amount of rain for the entire rainy season within a five percent accuracy. I kept records of the rain that fell that year; it was fifty-eight per cent of average.

I asked him, "Tonito, how can you know if it's going to rain or not? How can you know that it is going to be a dry year?"

"I can't explain it," Tonito answered. "I just seem to know. In my head something tells me."

"I mean, perhaps you notice the flowers or the birds doing something different, the cloud formations in the sky with a different color, there must be something, Tonito?" I prodded, hoping to glean some useful information that could be commercialized.

"No, I just feel it in my body. It's nothing like that. I just know."

How tragic, I thought, that a man with this incredible talent is at the bottom of the social ladder in this remote rural area of Mexico. Perhaps in another time, a hundred or five hundred years ago, he would have been one of the most prominent people in society: a society where this knowledge might mean the difference between prosperity and poverty, between a good harvest and starvation.

I tried to find another angle to exploit. I thought about how the Ejido was organized, they could plan their crops and manage their lands better if they used Tonito's ability to predict correctly if it would be a dry, normal or a wet year. Tonito could become one of the most prominent persons in Huajintlan. When I mentioned this, Tonito shrugged, "The town has always dismissed me as a mad old fool."

My young family, a few months later was blessed with the addition of Mitch. My family lived comfortably in Cuernavaca where medical care for the children was quickly available. Also, in a couple of years we would need good schools for them. I was commuting to work twenty-five miles a day into a very rural area, yet felt it was a small price to pay for the comforts and services my family enjoyed.

One day at work in Huajintlan, I heard the curious story of an old man who was crazy. I was told that they had to tie him up so he wouldn't get lost, as he frequently forgot who he was and where he lived. If I was concerned with helping the poor, I thought I certainly must see how the poor deal with old age. Was this a case of senility, of Alzheimer's? I needed to find out more, even though an old man in these environs might be much younger than what

our society thinks of as old age. When I saw Tonito coming to work, I decided to ask him what the scoop was; he knew everyone.

“Oh, yes. He is my uncle. He lives with my niece, Pascual’s cousin.”

After talking to Pascual, Tonito made arrangements for me to visit the crazy old man. The next afternoon, Tonito took me to his niece’s house, and after introducing me he said, “I must leave to get back to work and check the plant. Good evening. I’ll see you tomorrow.”

The niece said to me, “Pascual told me that you wanted to see my grandfather. He is old, he is ninety-nine years old, and he tires quickly. Please don’t get him excited. He is a little bit crazy up in the head if you know what I mean.”

“I’ll try to be brief,” I responded. I was primarily concerned with checking out the rumors of the old man being tied down and his squalid living conditions.

She led me outside, through the back of the house past a small vegetable garden with a few stray chickens and a pig. At the back of the garden was a small stone construction about eight feet by eight feet and five feet high with an asbestos tile roof. There was a single opening that served as an entrance and windows for cross ventilation. Without further words, she left me standing there. I bent over and went in. The old man was sitting on a cushion on the concrete floor; his only clothing was white boxer shorts. On a wall there was a big iron peg with a round metal ring, and attached to this was a long piece of gauze that was loosely tied to the man’s wrist with a simple knot. If you just pulled at the knot, it would become undone. You could see another door leading to another small room with a toilet and a washbasin.

As soon as the man saw me come in, he quickly moved to dust the floor next to him with his hand. There wasn’t much to dust off, the floor was spotless. “Please sit down.”

“Thank you,” I answered as I proceeded to where he indicated.

“You must be the engineer, the one that is building the plant.”

I was surprised, because I had been expecting some kind of half-crazy old man, probably suffering from Alzheimer’s. After I introduced myself, he continued.

“I lost count of how old I am, but I can tell you that I was twenty-nine years old when I joined Zapata in the Revolution. I don’t know if you’re aware that he was from near here.” I nodded that I did.

“What did you do in the Revolution?” I asked.

“What I did doesn’t matter much. What happened is the important thing. The whole Revolution became a farce. What we fought for was completely

perverted later. The Revolution was betrayed by the Politicos.” He went on to discuss, in his own words, not mine, concepts like communism, collective ownership, rigged elections of corrupt officials, the principles of laissez-faire economics and why the communistic ideas of the Ejidos hadn’t worked, particularly in the case of Huajintlan.

“Take the case of the Ejido of Amacuzac. It is our neighbor and it doesn’t take a genius to see how much more prosperous they are than us. Same lands, same weather, same rains, but they organized along the lines of private ownership: each person can do with their plot whatever he wants without consulting anyone. Not like here in Huajintlan, where every time you want to take a walk you have to have a meeting to see if two thirds agree with you. It is just plain stupid.”

The old man asked me how much I was paying my workers, he asked me about the benefits they had. He acknowledged that it was more than double the normal wages around there. He seemed genuinely interested not only in how I was doing things, but also about which young men I had hired.

“Beware of Teofilo. He is a very political animal. He might have joined your enterprise for his own perverse political motives,” he said enigmatically. He then returned to the Mexican Revolution. I was having a great time discussing this with the old man, especially the origins of the Revolution from the perspective of someone that had been there, a participant in some of these historical events.

“Before the Revolution, people worked. That is why things improved. Today, everyone just waits for a hand out. No one wants to work. Take the irrigation tunnel for instance; that was built before the Revolution. It is almost ninety years old, and it is still working, in spite of the fact that nobody has done any maintenance on it for seventy years. They can’t even agree who should do it or pay for it, so all they do is argue and postpone the inevitable. The people that farm the irrigated lands have an income of more than twice that of the others, in spite of holding only one third of land. The Revolution started because the rich landowners up river didn’t want to share the water. That was a huge mistake, as Zapata would show them. You would think that people would’ve learned that water issues have to be taken seriously, and careful thought exercised when deciding on its use. You would think that having more water for irrigation would be a high priority, an obvious priority, but no, they are too lazy. They don’t want to build canals or tunnels. The agricultural production of eighty years ago was greater than today. Just imagine that,” he lamented.

We went on to discuss classic guerrilla tactics, what Mao and Che Guevara many years later would call guerrilla warfare. He called them Zapatista maneuvers. We talked about the Porfirian dictatorship; he called it The Supreme Government. We talked about the dangers of monopolies, he called them Cartels. And so we spent the afternoon engrossed in conversation. Soon after sunset, I noticed that it was getting dark and the old man seemed tired.

“I want to thank you. This has been a memorable afternoon. I don’t want to overextend my welcome,” I said to the old man. “You don’t know how instructive all this has been for me. I will see you tomorrow.” I stood up careful not to hit my head with the low ceiling and extended my hand.

“I will see you tomorrow. Same time?” he said as he shook my hand in a warm handshake.

“Same time,” and, smiling, I turned and left.

The next afternoon after work I returned to see the old man. The niece saw me coming and came out running. “Engineer, I don’t know what you said to him, or what you are trying to do, but this must be your last visit. This morning he demanded clean pants, ironed shirt, and polished boots! He demanded to be bathed and shaved, even though he was bathed and shaved two days ago. He even demanded his hat and belt! He insists that all this is because you are coming to visit. I cannot be doing this every day. Do you understand? I have small children to take care of.”

“I do too. I understand. I’ll talk to him. Don’t worry,” I said placatingly.

I walked to the back where the old man’s little house was. I stooped through the door and there he was: smiling with his ironed shirt and pants, with his polished boots and his belt with a big shiny “charro” buckle; his hat on the floor next to him. “They didn’t believe me that you were coming to visit me,” he grinned. “How are you? Please sit down.” He pointed to another pillow on the floor next to him.

“I’m fine,” I grinned back as I sat down. He asked me about my children, about my wife and about where I went to school. Finally, I was able to get him back on track talking about the Mexican Revolution. We continued talking economics and various subjects. Hoping to learn more about the local inside politics of the Ejido, I probed his knowledge of some of the people I had been forced to deal with. He knew them all, and I wondered how anyone could say that this man was crazy. I could not detect one single trace of Alzheimer’s. As the afternoon wore on, the sun set again, and once more the old man seemed to tire. I thought it was time to take my leave. Hoping to get a summary of the afternoon’s conversations, I turned to him and looked him in the eye,

“After all this we have discussed, what is the most important thing I should keep in mind?”

The old man rubbed his moustache with his thumb and index finger a couple of times as he thought carefully. After a brief interlude he clasped his hands tightly between his face and mine; he squeezed them tight and shook them slightly as if he held a pair of dice and was getting ready to roll them. Looking directly into my eyes he said, “Love. Love is the most important thing. If you find it, hang on to it tightly.” Again, he tightened his clasped hands between our faces. “Hang on to it, because you never know how long it is going to last.” After a few moments, he let his hands drop. He averted my gaze and looked out the window with a deep expression of longing. I don’t know how long we sat there in silence.

“I will see you tomorrow,” I said eventually as I rose, letting the impact of his words sink in.

“Maybe, my friend,” the old man answered as we shook hands.

“Not maybe, tomorrow, same time, my friend,” I reassured him. He nodded and smiled.

“Maybe,” he repeated with a smile and a gleam in his eye.

I smiled, turned and left.

That night the old man died. I bought a tall slim head stone, the tallest in the small cemetery of Huajintlan and paid for the old man’s funeral.

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When Mitch first showed signs of mental problems, and the doctors that first saw him misdiagnosed the situation and proved unable to help him, I promised my son, that in time, the answers to his problems would be known. But, as I contemplated the enormity of the task ahead, as I tried to fulfill that long ago promise, a promise that even if I was successful, was too late for Mitch, I continuously had particular memories intruding into any effort I expended. I felt guided by an outer power, as if I had no other choice but to write these memories down. So I wrote it all down, resolved that I would find a reason and the order later. I felt strongly that the story of Mitch, the story of my son, should start somewhere with my capacity to love. It was love, after all, the love for a woman, which inevitably led to his birth. It was love that bound us deeply together. It was love that made our relationship so special.

I think back to the old man tightly clasping his hands in front of my face, “Love; when you find it hang on to it. You never know how long it will last.”

There was another memory, almost forgotten that kept intruding in my terrible grief. At the same time, these thoughts were intruding because I was highly motivated to find answers; these thoughts were clues as to how the brain works, and the answers slowly emerged. Many of these intruding memories, which served as guidelines for the story, as well as for my research on the brain, remained in the book, as they are relevant; others have gone into history unnoticed, erased, only leaving traces in my mind, but those traces are still part of the guiding light.

In my terrible state of grief, I kept thinking about this almost forgotten memory, and I couldn't move past it. I later came to understand that it was part of a healing process, a mechanism of the brain, which helps one understand that there is joy, goodness and peace; that, in time things will change. I also realized that this first love became one of the driving forces in all my future loves.

I fell in love for the first time in kindergarten. We were four years old. Her name was Alma, which appropriately, in Spanish, means Soul. The Williams Kindergarten was run and owned by Mrs. Williams, a young widow. Alma was the first female to touch me deeply, aside from my mother, of course. I was completely happy just to be around Alma, with her, just to look at her. I would do anything to see her smile or make her laugh, what a joy that was.

If anyone tried to bother her, he or she would have to contend with me. I remember one boy who was harassing her, probably to tease me. I told him to quit and he challenged me to make him stop. It happened during recess. Even though he was slightly bigger than I, he left me no recourse but to jump on him. He counterattacked mercilessly. We wrestled and turned and twisted on the ground. It seemed like we went at it for a long time. I was beginning to tire and feared that my strength would give out before I subdued this individual. I think that Alma must've reported our fight to Mrs. Williams because she showed up and broke it up. When I explained that this guy had been bothering Alma, kind Mrs. Williams, probably aware of my relationship and feelings for Alma, sent me into the classroom with Alma and had a talk with this boy. He never bothered Alma again. I don't know if fear of another prolonged fight or what Mrs. Williams had said to him was the true cause of his newly found respect. But I was happy and proud to have protected her.

Alma's mother would drop her off at the Kindergarten about an hour earlier than the scheduled 10:30 a.m. In contrast my mother would drop me off just a few minutes before the scheduled time. I couldn't convince my mother to take me to school earlier than necessary. I wanted to go live at the Kindergarten so I could spend more time with Alma. She had beautiful brown eyes, and when she smiled my whole world would light up. If she laughed,

my heart felt warmer. I tried to come up with any kind of excuse to be invited to her house, or invite her to mine. My main problem became convincing my mother to take Alma home later in the afternoon. This of course meant that my mother had twice the driving to do. Still I beseeched my mother so much that occasionally she relented.

Of course, every day I was eager to go to school; it meant that I would see my beloved Alma soon!

Two years went by; it was time for us to go to grade school. Alma was sent to the Oxford School, considered the best girl's school in Mexico City. I, in turn, was sent to Two United Nations School, a bilingual, coed school. So it came to be that we were separated.

My three younger sisters in turn would go to the Oxford School. My sister Pelusa, 15 months younger than I, was one year behind Alma, and through her I would get little bits and pieces of information about Alma. I would get to see a picture of her in the yearbook every year. When I was ten years old, Mrs. Williams had her first fifth-year class reunion. I of course insisted in going. There was the possibility that Alma might be there. Not surprisingly, Alma and I were the only ones that showed up. She was taller than I and this made me feel a little bit uncomfortable. We looked at each other, and stood in awkward silence. What could we say to each other? I think we both realized that we had grown apart over these past five years.

Curiously, that year Silvia, was expelled from the Oxford School for bad behavior. Her mother, a very famous actress, decided to send her to the Two United Nations School. She was one year ahead of me. I fell in love with her. This helped me to move on without Alma.

However, over the years, I would still keep tabs on Alma through my sisters. I heard that she had become an extremely beautiful young woman, much like her mother. She went on to become an actress. Through the news of her films in the media I would occasionally hear about her. I wondered all these years if my love for her had been real or just an illusion. After all, was it possible that I, so young could have had a love that profound? And could you feel that love if it was not reciprocated? Could it be that she hadn't loved me and that it was all in my head? Could so much happiness be a product of my own imagination?

Sixteen years later, my wife and I had had our first son, Fredrick Lawrence. We had a homebirth. My wife felt that giving birth should be an easy, natural

thing to do. She was strong and extremely healthy, and after studying the situation I felt that in 99 percent of healthy cases, the gynecologist is just an observer of a natural process. There is really not much to do but to be a witness. On the other hand, the Monterey Community Hospital was only five minutes away in case of a complication. I arrived from Cuernavaca to my mother-in-law's house in Carmel on the evening of January 27, 1978. After a short night sleep, at five in the morning the next day, my wife woke me up to tell me she had started contractions. I asked, "How long between them?"

"I'm not sure, maybe every half hour."

"Wake me up when they are five minutes apart," I answered as I tried to get some much needed sleep, especially with me attending my wife's natural birth.

A few minutes later, even though she was not having another contraction, she poked me awake and told me to contact the midwives. After doing so, I went for a walk to calm myself and mentally prepare for what was coming. At about nine in the morning, Maggie, one of the midwives showed up. She was about 4 feet 11 inches tall and had tiny hands. She talked to Pat, and then she asked me to check how dilated Pat was, as her tiny hands couldn't reach far enough. I determined she was ten centimeters, fully dilated. This seemed to indicate a quick and hopefully not too intense labor.

However, my wife had developed a "lip" at the mouth of the uterus, and as the contractions tried to push the baby, its head got "caught" on the lip. This produced pressure on Pat's tail bone and made it extremely uncomfortable for her to sit or put any pressure there. She decided that what was most comfortable was to hang. She insisted on hanging from my neck, reaching up and behind her so she would be hanging in front of me. This proved very tiresome, so I devised a better method. I sat on the floor with my legs extended, and she sat between my legs in order to avoid any pressure on her tail bone. As the hours passed and the contractions became more frequent, I began to wonder if I was going to have enough strength to make it to the end. Perhaps I would need to be taken to the hospital when this was over. Eventually, Freddy was born and placed on his mother's stomach. Soon he was sucking at her breast and the placenta came out in one whole piece as expected.

When the midwives left, my wife and mother-in-law, exhausted fell asleep. The midwives had not done a proper aspiration of the baby's throat and it was still filled with mucus. I was left alone, and responsible for Freddy that first night. He kept coughing and spitting out the mucus in his throat, which was very natural given the circumstances, but to me it seemed he

might choke and die any minute. I spent all night holding him and checking him, afraid that something might happen to him if I fell asleep. The next morning we were bonded. I felt like I was his mother, a father was too little. I was reluctant even to let his real mother hold him. He was my son; the love I felt for him was of a different nature, it was a love that was unconditional and unidirectional.

A few months after Freddy was born, my dear friend, and Freddy's Godfather, Enrique Gomez asked me to be assistant director in a new play he was going to direct and produce. The play's title was *The Maximum Happiness*. There were three characters in the play: a man about forty, who invites his twenty-year-old lover, a young and handsome man to live with him; the young man, who in turn, meets a thirty-year-old woman and invites her to live with the two of them. She becomes the lover of both men. Both men in turn continue to be lovers. She has gotten pregnant, and since she alternates sexually with the two men, she doesn't know who the father is. The play starts at this point. The older character is trying, successfully so far, to impose on his two younger lovers a philosophy of "The Maximum Happiness". This happiness, in a nutshell, is that two lovers are better than one.

Sergio, Jaime and Sylvia, all three superb actors, were the protagonists of the play. Sergio played the role of the older man, Jaime played the young man, and Silvia played the woman. Yes, the same Silvia that I had been in love with when I was in fourth and fifth grades.

After the first few rehearsals, we all realized that we needed to sit down and figure out some of the complications this triangle of love generated. We tried to give the characters more depth by identifying whether there were undertones of jealousy or not. And if so, when? Was it truly love, or was it more passion? Was the relationship between the two men after they shared a woman different, or was it the same as before? So we shared stories of some of our personal experiences that might help bring to light the subtleties in the interactions of the characters.

Enrique, the director, functioned as coordinator of the session. Sergio shared with us a once-in-a-life experience when he had sex with two women. And how there had been an element of possessiveness on the part of the women. Silvia admitted that she had never had sex with two men simultaneously, but had had an ongoing affair with two men at one time, without either one of them being aware of the other. She was having a hard time with her character relating to two guys that were her lovers, as well as being lovers themselves. Jaime had experienced an affair with a man and an affair with a woman, separately but simultaneously. He told us that in

his experience, the man easily accepted his affair with a woman, but that he hid his homosexual affair from his woman partner because he felt she wouldn't understand or allow it. I thought certain parts of the play had to be based on the assumption that a love without sexual overtones or jealousy or possessiveness was implicit. Otherwise, the play couldn't unfold smoothly; I couldn't see how to bridge certain parts if we assumed that the characters felt jealous and possessive. I related my experience with Alma when I was four years old as an example of such a possible love. And so little by little we were able to make the characters more credible by giving them depth.

Four weeks later we had our first performance; opening night. Customarily, the press and other actors and guests are invited. A small cocktail party takes place after the performance and hopefully you hear positive reviews. Alma was among the guests. At the time she was living with another actor who had been invited because he would be working in a future project with Enrique. I didn't give it much thought. I was married and about to become a father for a second time.

After a great performance, I was standing at the bar, trying to get a sense of how well the play had been received. The lobby of the theater was crowded and loud with too many people talking at the same time. Sergio came out of the exit that led to the dressing rooms. He looked around, walked up to me and said, "Alma is over there." He pointed to her. She had her back towards us and was talking to a small group of people. "She's a good friend of mine. Come, I'll introduce you." I had forgotten that I had mentioned my connection to Alma. "Sure," I said and we started walking towards her. I think Sergio thought it would be interesting to see what happened. Sergio tapped Alma on the shoulder as he said, "Alma, I have someone here that I want to introduce you to." As she turned, her beautiful brown eyes locked on mine and she smiled and said, "I don't need to be introduced to my first boy-friend, Sergio." We hugged and grinned at each other. Now I knew. Our love had been real.

The Two M's: Madness and Mortality

When I was fifteen, on a cool summer afternoon in Mexico City, I was having lunch with my grandfather Federico Sanchez Fogarty. It was just the two of us, and I remember that particular day because he mentioned, almost in passing, a couple of things that at the time seemed odd and somewhat disturbing. All his grandchildren knew him by his nickname Tito. One of the greatest tributes to his memory is that all sixteen of his grandchildren claimed to be his favorite grandchild. Of course I knew better; I was the favorite one. I am the oldest male grandchild, and I was named after him. Why would it be different?

Having ordered his usual martini, and after looking at the menu and ordering lunch, Tito turned to me and said, "You have to beware of madness in the family."

"What do you mean?"

"Nothing. Just that you have to beware of madness, it seems to crop up once in a while." He said, and sipped on his martini.

"You mean that there have been some crazy relatives?" I asked, knowing that Tito's brother Carlos had died as a young man of thirty-six. Carlos had continuously worried about being constipated; he was forever taking laxatives to improve his condition, real or imagined, I was never quite sure. People made it sound that Carlos had been a hypochondriac. I heard one account of Carlos's death from an aunt: having taken some laxative pills for horses Carlos had literally shit himself to death. Tito had mentioned his brother's death a couple of times and I was sensitive to the fact that his loss had pained my grandfather enormously.

"I simply mean that madness tends to run in families. I don't know of any mad people in our family. It was simply a thought. When you are the head of a family, you have certain extra responsibilities; like watching out for madness in the family. One day you will be head of a family and you will need to pay attention to the possibility of madness cropping up occasionally."

I waited for him to elaborate more, but nothing more came forth. He changed the conversation and started talking about Poker and the odds of

making a pair, two pairs, three of a kind and so on. I probably would not remember his comments on madness were it not for another remark he made that same day after we had finished lunch.

“I am going to die in your presence,” Tito said out of the blue.

I turned to him alarmed, at first thinking that he meant he was going to die right then and there. He must have read my mind, “I don’t mean now, and I don’t even mean soon. All I am telling you is that I am going to die in your company. Whenever I die in the future, I know you are going to be with me. It is nothing to worry about. It is just the way it is going to be.”

“You’re scaring me talking like that. Are you sure you are all right?”

“Yes, yes. I am fine. There is nothing to worry about. I already told you. And I am not going to die for many years, relax.”

He had just turned sixty-five and had been forced to retire from Cementos Tolteca, a cement company he had worked for most of his adult life. I thought that perhaps these gloomy thoughts might be related to his state of mind and have something to do with having been forced out and made to feel that he was old and couldn’t contribute any more. However, that afternoon and occasionally thereafter, I would think of his words, “I am going to die in your presence.” And in an odd sort of manner, as soon as that thought entered my mind, always another thought intruded, “You have to beware of madness in the family.”

My father lived in Acapulco. Ten years later I was there visiting him and so was my grandfather Tito. On the second night of his visit, fate would have it that Tito slipped in the bathroom early in the morning as he came out of the shower. He broke his femur. My father had gone out, and so, I called an ambulance and accompanied him to the hospital.

Tito had come to see my father because he hadn’t been feeling well. He had a small lump in his neck on the left side. The previous night I had been talking to him and invited him to come dancing with my friends. Surprisingly, he declined. It was the first time that I could ever remember him passing on an invitation to go out on the town. He loved to go out and listen to music and drink. It seemed strange that he had chosen to go to Acapulco to see my father, as the medical facilities there were nil compared to Mexico City.

When we arrived at the Social Security Hospital, the doctor inserted some screws into his knee and put him in traction with some weights to keep the leg extended. It was later decided by all members of the family to move him to Mexico City so that he could get the best possible care. Back in Mexico City, a few days later, Tito underwent surgery to place a stainless steel pin in his femur to eliminate the need to have his leg in traction for several months.

The doctors decided to do a biopsy of the small lump in his neck while they did the leg surgery.

The next day I went to the hospital to visit and I arrived to find him comfortably sitting propped up in bed surrounded by family members. As usual, he was the center of conversation and was going on about some story in his life. I was standing at the foot of his bed looking at him when suddenly I heard him say very loudly and clearly, "I am dying." He said this with a terrible expression of fear etched on his face. I turned to look around me to see how everyone reacted, and I realized that I was the only one that heard this. Everybody was still listening intently to the story he was telling. I turned to look at Tito again, and again in a terrified expression he repeated, "I am dying." I looked around a second time and every person was keenly following his story as he approached the punch line. He was a great storyteller; he finished in a very serious tone, but everyone broke up in laughter as he hit the punch line. He then joined in the laughing, enjoying himself immensely.

I realized that I was the only one that had seen and heard him say, "I am dying." I couldn't explain it, and to this day I still cringe when I see in my mind's eye his expression of terror. I went out into the hallway to walk around, clear my head and think about what I had just experienced. I walked to the end of the hospital corridor and looked out the window.

My thoughts were interrupted by my father's voice, "I need to talk to you."

I turned to him and said, "You mean about Tito dying?" I asked without thinking that it was his father I was talking about.

"How do you know that?"

"He told me. Well, he didn't exactly tell me, but in a strange way, he did tell me." I then proceeded to tell him what I had just experienced.

"Sometimes two people are very connected and you can hear their thoughts and feel their feelings," he said as if this would explain it all. "What I want to talk to you about is this: I have just come from the doctor's office and the biopsy results are in. My father has cancer of the lymph system." I nodded in understanding. "He has a few months to live. My mother doesn't want to tell him anything unless he asks. She feels that if he wants to know, he will ask; if he doesn't, he won't. It is her husband, after all, and I feel that she has the right to do what she wants. Basically, what I am telling you, better asking you, is that your grandmother doesn't want anyone telling him anything unless he specifically asks. Is that clear?"

"Yes, that is very clear. You don't have to worry about me. But he does know. Of course, if he asks me something I'm not going to lie to him. But I think he won't ask. He already knows."

“If that is the case, then it’s all right. But please, let’s respect my mother wishes. Don’t mention anything to him.”

Tito never did ask anyone anything about his health or what the doctors thought. He submitted to whatever treatment my grandmother wanted for him without complaint. Eventually he went home. There was not much more to do.

A few weeks later, he became unconscious. I would come every afternoon to visit him. I would go into his bedroom and walk up to him, and touch his hand. Mentally I would say to him, “I am here,” just to let him know that if he wanted to prove himself right about his comment ten years earlier he should do so now. Nothing happened for the first few days. I felt glad that he was unconscious with no pain. I also knew that he would not want his friends and family to see him like this. Tito had always been a proud man and he always had dressed and groomed impeccably.

On the eleventh day I walked in to see him and performed my silent ritual. I mentally urged him, “If you’re going to die in my presence, do it now. I am here. It is all right.” I held his hand, it felt cold. I looked at him and mentally repeated, “I am here, Tito.” At that, he stopped breathing. Death is so palpable. There was no doubt in my mind that he had just passed. He kept his promise to me, after all.

I now understood what it was he wanted from me. He had been an extraordinary proud and elegant man. He wished that I would make sure he was presentable after death. My aunt Magas, my father’s younger sister, walked into the bedroom at that moment, we exchanged glances and that was enough to inform her of his death. I told her that we should shave him and clean him up before we told my grandmother. She nodded and both of us calmly proceeded to take out the needles and hoses that were attached to his body. I quickly shaved him and she combed him. We inspected our handiwork and decided that he looked slightly better than in the last few days.

My aunt cried softly, “He was the best father in the world.” I went to the door of his bedroom and told my grandmother and other relatives that were assembled outside.

For twenty-six years after his death, the thought, “beware of madness in the family,” drifted into the dark recess of my mind. When I thought about Tito or his death, I did not think about madness in the family; I thought mostly about him and his life with me.

In the years that followed his death I learned a lot more about the man and his professional life, about him and his family and everything he managed to achieve. Tito would serve as an inspiration in the years to come. However,

shortly after my son died, all these memories came back. "Beware of madness in the family." Can people really know something far out in the future? Could my grandfather's warning have been grounded on something? Was there madness lurking somewhere? Or was it just coincidence?

~

One evening, when Mitch was in kindergarten, I was putting him to bed, helping him with his pajamas. He had an angel's look about him, with his round face, red hair and green eyes. He had a very raspy voice for a kid, making him sound almost like an adult. We were talking about nothing in particular, things that parents and small children do as they are about to go to sleep. I was reading him the *tweetle beetle battle in a bottle with a paddle in a puddle* book. He would laugh at the idea of the beetles with paddles and I would suddenly press my lips on the skin of his stomach and blow air. This sounded like flatulence and tickled him. I loved to hear him laugh. I can still smell his soft, small-child scent, always so fresh. I was asking him about school and his friends, thinking about how intense some of those friends had been for me. There was a pause, and he looked at me with his big green eyes and asked me in a more serious tone, "Is Tito your grandfather?"

"Yes."

"And he died?"

"Yes."

"And my grandfather is Xavier?" Mitch asked, making reference to my father. He and his brother Freddy were on a first name basis with their grandfather.

"Yes," I answered, wondering where this conversation was going.

"And he . . . is going to die?"

"Yes," I answered slowly, attempting to mask my hesitation and not be so blunt, trying to assess the impact on him, and trying to anticipate where he might be going with his interrogations. He nodded slowly as he thought about this. He rubbed his lips with his tongue. He seemed to accept this simple fact. He looked up at me.

"And . . . Are *you* going to die?" he asked me hesitantly.

I smiled, and I looked him in the eye before answering. "Well, yes . . . someday." As soon as I said this, he started crying inconsolably. I quickly tried to comfort him by adding, "You don't need to worry about that. I am going to live many more years. Your grandfather, Xavier, is also going to live

a long, long time. You will be an old man, older than me when we die. Don't worry about me, don't cry."

"I'm not worried about you. I am worried about me. I am also going to die!" he answered sobbing.

"No, you're not."

I held him tight and I kissed him, trying to console him as he contemplated his own mortality for the first time.

I said softly, "You are young and going to live much longer than me. You definitely need not worry about this. Believe me. Little boys grow up to be old men. Your grandfather was a little boy once. I was a little boy once." He seemed to calm down, and after I scratched his back a little bit, which he always loved, he was sound asleep.

As he breathed evenly, I thought back to a time just a few years before, when he was about thirteen months old. Then I had really worried about the possibility of his accidental death. We had been living in Cuernavaca, a small city nestled in the mountains south of Mexico City. The weather is just fabulous there. It is so good that you can live in shorts and short sleeves. The altitude keeps the weather cooler, so the temperature rarely rises above 90 degrees, and hardly ever falls lower than 70.

Both Freddy and Mitch loved to run around naked. Mitch, for a brief period, got in the habit, when he saw a swimming pool, of ripping his clothes off, running to and diving into the pool. He would hold his breath as he sank to the bottom. There, he waited for me to dive in and get him. He would lie motionless at the bottom of the pool, face down, arms and legs extended. I would jump in, pull him out, and as soon as his head was out of the water, he would exhale loudly and laugh. I tried in vain to explain that he could not count on me to jump in and get him out every time. I found it impossible to reason with him; I told him that I couldn't be getting my clothes wet every time he saw a pool. I tried various things: sometimes I let him stay there, at the bottom of the pool for a while, but always jumped in before he would get scared or doubt that I was jumping in to get him. Every time this happened, I took Mitch for a swimming lesson. I would stay in the pool with him for as long as possible. I hoped he would learn to swim soon.

Every year around the sixth of January my grandmother would have a party for all her great-grandchildren. All my cousins and our children were invited to her ranch. The ranch was really a country house, about forty minutes west of Mexico City, and about one hour from Cuernavaca. She was a landscapist, and had beautiful gardens. One of her projects had been an aquatic garden. This pool varied in depth from four feet to about six feet. It was full of plants,

a few fish, some water lilies and a lot of algae. The algae floated on the surface and gave the appearance of a solid mat of ground cover.

All the adults were sitting in a terrace nearby, about twenty yards from the pool, when one of the small children yelled that someone had jumped in. I immediately turned to my sister Pelusa and her husband Rogelio, as I knew that they were aware of Mitch's recent proclivity for diving and holding his breath. The three of us jumped up and headed for the pool. We split out to cover different sides. It was almost impossible to see anything below the surface. The water was calm, as the great amount of algae precluded any ripples if the surface was disturbed. My wife Pat and more of my cousins joined us and everyone was contemplating jumping in to start looking blindly at the bottom of the pool, when suddenly Pelusa jumped in and pulled Mitch out. As soon as his head broke the surface, he simply exhaled and laughed.

From that moment I was determined that he would learn to swim before we had another accident. Back in Cuernavaca, I heated the pool so I could stay in the water with him as long as necessary. I played with him, let him sink, forced him to swim sometimes, and slowly he got the idea. We spent hours every day in the pool. In about ten days he was swimming quite well. Freddy had learned to swim when he was about two. Mitchell was swimming at fifteen months of age. I breathed a sigh of relief. I wouldn't need to worry about swimming pools any more.

As parents, we are perpetually worried about our children. My grandmother told me when Freddy was born, "Now you will always worry. I still worry about your father." I found it amusing that my grandmother would worry about a fifty-year-old man. But she was so right. I always thought that if, some terrible day, news of one of my son's death reached me, it would be due to some accident. In the case of Mitch, I thought that it could be some bungy chord jumping accident, or a freak wave in the ocean when he went surfing, or a cracked head as he practiced his skate board tricks, or even crashing into a tree as he sped down the slopes on his snow board. He was always fearless. Well, almost always.

The first time we took Mitch skiing we went to Jackson Hole. He was a little over three years old. We put him and Freddy in ski school. At the end of the first day, when we went to pick them up, the ski instructor asked us, "How come you didn't tell us that Mitch didn't speak any English?"

"Of course he speaks English. What do you mean?"

"Well, he kept ranting in Spanish every time we tried to tell him something, and he would simply shoot down the slope. We had to go like demons to catch up with him and stop him. And then, every time we tried

to explain how to make turns, he would look at us, and shoot down the mountain again. He just simply didn't understand anything we said."

"Well, he is bilingual. There is nothing wrong with his knowledge of English, believe me."

"Tomorrow we can have a Spanish speaking instructor. She's Chilean, and she is very good with little kids," he said, hoping to get Mitch off his hands.

I looked at Mitch. He feigned innocence and looked at the ground. I smiled inwardly and said, "I think that is a great idea. You think you can follow instructions better in Spanish, Mitch?" I asked him in English.

"Creo que si." Mitch answered in Spanish.

"Well, if you don't follow instructions, there will be no skiing tomorrow, young man."

"Es que no me dejan hacer nada," he complained.

"I'm sure your new ski teacher will let you do a few things, Mitch, but I want you to promise me that you'll listen to her instructions. Otherwise, there is no skiing tomorrow."

"Esta bien, es que es muy divertido echarse de bajada."

"So it's settled. He says he'll pay more attention tomorrow," I said to the instructor. "We'll see you tomorrow at nine."

I put a hand on the back of the neck of each of my two sons as we turned to leave. "Freddy," I queried, "Why didn't you tell the instructor that Mitch spoke English?"

"Father, Mitch was having a good time. I didn't want him complaining and crying; then I would have to deal with him all day. That's no fun."

"I see," I muttered, not knowing if I did see or not, but still laughing inwardly.

Mitchell, for the most part, was a great kid. He did better in school than his brother Freddy, who went to U Cal. His musical talents were astounding. In sports, he excelled in gymnastics since he was little. Later, he preferred skate and snow boarding, and surfing, as opposed to team sports. In that respect he was more of a loner, but nothing out of the ordinary. He was good looking and popular with his friends and the girls.

Disciplinary problems were few and in between. Some, perhaps were instigated by me. When we lived in Mexico, back when Freddy was about ten and Mitch, eight, one boring afternoon I taught them how to make a smoke bomb. You could get the ingredients at the local drug store. You wrapped them loosely in aluminum foil, and with a proper fuse, which could be a simple match, you lit it up. Once the bomb was lit, the chemicals fizzed

and produced a very dense cloud of smoke. Depending on the quantity, the smoke could cover up to about half an acre. Naturally, I was called one day, when Freddy had lit one at his school. A few years later, when we moved to Carmel, Mitch naturally felt a little bit of an outsider. On a trip to Mexico, Mitch bought the ingredients for a smoke bomb. Back in Carmel, one afternoon, he invited a couple of kids home after school and took them to a neighbor's shed where he was going to show them how cool he was with this smoke bomb. Predictably, a huge amount of smoke in Carmel made a neighbor call the fire department. They came roaring to put this great fire out. Someone saw the kids run out of the shed and run home when they heard the fire sirens. Shortly after, the Fire Marshall was at my door. I immediately knew what had happened. The Marshall was intent on arresting the kids on a charge of vandalism. I was able to convince him otherwise after I pointed out that he probably found a wrinkled aluminum foil with a few ashes, but no sign of any destruction by fire. Yes it was wrong to light a smoke bomb; but no, there was no intention of burning anyone's property. This was just a kid trying to impress his peers.

Many years later, when Mitch was fourteen, I got a call from the neighboring hardware store. "Do you know that your son came in and bought a whole bunch of bungy chords?" the owner asked.

"Yes," I lied. "Why?"

"Well, I just thought it was strange. He came in and took several bungy chords, then he came back for more, and he returned a third time and took all my stock. I just thought it was odd and that perhaps you should know."

"Well, I wasn't aware he had bought so many chords, I'll look into it, thanks for calling me."

After talking to Mitch, he reluctantly admitted that he was testing some bungy chords for the purpose of making a bigger chord to go bungy chord jumping. I was not too concerned, because when I look back on my own childhood and teen-age years, I did an incredible number of things that to this day I am amazed that not only did I survive, I didn't even suffer any major injuries. I hung on the outside of trolleys in Mexico City, I was body surfing since I was seven, I went caving with nothing but home-made lanterns using a candle and a tin can, climbed up trees and then jumped to neighboring trees, went white water rafting. Somehow I knew implicitly what I could do and what I couldn't. In that respect I trusted my children to be similar to myself . . . and Mitch was a smart kid.

However, I decided that the best approach would be to teach him the principles involved. Mitch had taken some algebra, so it was easy to teach him

the principles of springs: the relations between elongation and mass, as well as how to design a system of springs when you build them in parallel or in series. It was his first physics lesson. He took to the math. I double-checked what he was doing. He had rigged a ladder to climb high-up on a tree. At the top of the tree, he had tied the bungee chord to a branch. There was a small platform to stand on and jump from. Below the tree was our trampoline on which he practiced his skateboard and snowboard maneuvers. I had seen him practicing his skateboard flips as he went high in the air, and on other occasions he practiced somersaults and flips with a snowboard taped with duct tape to his feet. He could be quite impressive.

“Dad, if I make a mistake with the bungee, I still land on the trampoline. And I am doing all my testing standing up, not hanging by my feet as you see on television.” Mitchell proceeded to show me the loop where he could stick one of his feet in and in that manner stand on the suspended chord as he held on with one hand. “It is perfectly safe,” he said, pointing to the small platform high up in the tree. “I have already jumped into the trampoline from up there without the chord. It’s no problem, seriously,” he said laughing.

“If you say so,” I said with some doubt, but I had seen him jumping on the trampoline so high that he could almost attain that same height, so it was perfectly conceivable that he could do that safely . . . and he was a smart kid like me. I should trust him, I thought, so I let him proceed. When I didn’t hear much about bungee jumping in the next few weeks, I thought it had been a phase that had passed.

After Mitch went to college, and this I heard from Mitch’s friends not Mitch, he had perfected his bungee jumping, had calculated how to adjust the length of the bungee according to everyone’s weight, and had convinced a number of his friends to go bungee jumping from the bridge near our house that spans the Carmel River. Mitch was the expert: he knew how to tie your feet, shorten or lengthen the bungee as needed, depending on how close to the water you wanted to go. He even convinced some overweight friend of his to try it. For this purpose two bungee chords were rigged and the kid had a thrill.

From the bridge to the river is about eighteen feet. The river normally is only about a foot and a half deep. What they would do is jump, head first, suspended by the bungee from their feet. The purpose was to get your hair wet, and, of course, avoid hitting your head on the rocks at the bottom of the river. Mitch was the only one that consistently got his head wet; and once, supposedly, when the river was only about twelve inches deep, he managed to hit his head on the bottom of the river, apparently without serious injury

as the bungy chord was very close to breaking his fall before bouncing back up. That was Mitch.

On another occasion we went skiing with some friends in Park City. Mitchell wanted to go snowboarding, but they didn't allow snowboarders at the ski resort that we adults were skiing. So Mitch pleaded for me to give him a ride to the nearby ski lift area where not only did they accept snowboarders, they even had a half pipe and ramps especially made for them. I dropped him off. At the end of the day, on my way to pick Mitch up, I was slowly making my way through the huge parking lot and I was looking up into the ski resort. Close to the bottom of the hill, there was a big ramp, and I saw a snowboarder approaching it at high speed barreling down the mountain slope. He disappeared from sight, behind the ramp, emerged flying high up into the air in a trajectory that was obviously at the wrong angle, and simultaneously, as he struggled in the air to correct the trajectory, he started to lean to one side of the snowboard, more and more as he approached the snow covered ground, he tilted horizontally, his snowboard and head at the same height, parallel to the ground, as if he were trying to correct his trajectory with his snowboard while his body continued flying in the wrong direction, and smack! He landed on his side on the snow. He bounced in a big puff of flying powder. I couldn't help but laugh. It was hilarious. I was still laughing after I parked and got out of my car. "Wait until Mitchell hears about this. He's going to love it," I was thinking, when who do I see approaching me, carrying his snowboard under his right arm, covered in snow—snow under his glasses, snow on his hair, snow in his hood. Could it be? Yes, that snowboarder was Mitch.

Mitchell's Memorial

When I look back at the preparations for Mitch's memorial, I remember reverend Gutenberg asking me, "What is special about your son?"

I couldn't think of anything that was special other than the fact he was my son. *That* made him particularly special *to me*. Then, after reflecting a little bit more I answered hesitantly, "If I think about it more carefully, he was everything I wasn't. He was a poet (not an engineer); he was a musician, an artist, a skateboarder (not a soccer player), a surfer and a snowboarder (not a tennis player), and a salesman (not an accountant)."

Occasionally, I wondered if his love for me and his desire to be like his brother had anything to do with his death. Could his effort to emulate his brother and me (we're both engineers) have contributed to a feeling of inadequacy and insecurity? I felt bad that perhaps I hadn't reinforced as forcefully as possible that he was a fabulous person in his own right, being exactly who he was. On the other hand, I know that his intensity in life was something he picked up from his mother, his brother and me.

Mitch's friends had no trouble seeing what made him special. He was a leader, who led by example, an inspiration for all to be better. We took so many things for granted in our family.

On the inside cover of a simple program printed for the memorial, we included a poem Mitch had inscribed in a portrait that he painted of his mother and gave it to her for Christmas the year before:

*Blue sky, clear for thunder!
This gold note rings forgiveness,
Silence,
The pink clouds fluff out above
The sea.
Imagine a distant past,
Learn to live it and not to perish
Under its burden.*

*Far away, a bright twinkle
Promises safety.*

—Mitchell Sanchez, December 2001—

I had to choose some music to play as people entered the church the day of the memorial. I chose *The Long and Winding Road* of the Beatles for the simple reason that Mitch had left my old Beatles piano book open on that page with a series of notes and scribbles.

It was Sunday morning in the middle of November and the weather was so nice, not a sweater or jacket was necessary as would normally be the case. The sun was shining brightly in a clear blue sky. If it wasn't for Mitch's death it would have been a perfect day. My wife and I arrived about half an hour early at the Church in The Forest, the church of Robert Louis Stevenson School, where my two sons had gone to high school. We walked toward the church and realized it was packed with people, some were standing in the back as there were not enough sitting spaces. It was standing room only. I thought that, since we had arrived early, some other function was still taking place. I stood there, to one side of the church, looking in, and it seemed strange that I knew almost everybody inside. *Why would all these people I know be here, attending some other event?* I wondered. There were many of my two sons' friends there, as well as many of our friends, members of our club, customers of ours, and suddenly it dawned on me that all these people were here for Mitchell's memorial. One of my cousins who had flown up from Mexico said to me, "And we thought that you were all alone in this country."

This was truly a tribute to Mitchell and my little family. Friends of his had come back to Carmel from all over; perhaps in equal numbers, friends of Freddy's were here in full support for him and Pat and I; Pat's family was overly represented as many only had to drive two or three hours to get here, not to mention that it is a huge family on both her mother's and father's side. On my side of the family, my mother and father, an aunt, all my siblings and all my cousins close to me in age with their spouses, flew from Mexico. I carried in Mitchell's ashes and sat at the front with my wife.

Reverend Gutenberg started the memorial by doing some Psalm readings. It was brief and appropriate, giving some religious solemnity to the occasion.

Different people volunteered to do eulogies. Incredibly, without any coordinating, each eulogy touched on a different aspect of Mitch's life. The first speaker was Dale Hinkley, Mitch's and Freddy's high-school history teacher.

“We are not supposed to lose them this young. When a young person departs, we face a void: what would this person have been? What role in the drama of life is unfulfilled now? Whose lives was Mitch destined to touch that he cannot touch now?”

“I’ve lost a number of students over the years, including one who died at 16 last summer. What I realized most strongly when she died a few months ago is that she is still here in so many real and profound ways—and this is true even if you are not particularly religious. She taught many lessons to her friends and family after she departed, and continues to do so.

“It’s the same with Mitch. I am certain that with his passing his friends and family will remember his intensity, his intolerance for foolishness, and his focus on the purpose of life.

“In my US history class, five years ago, Mitch would typically wait a few minutes as discussion warmed up then plunge in. Frequently, juniors in high school have a rarefied notion of human affairs we study as history. Mitch did not: for him, history was not a heap of desiccated facts but the living story of our ancestors’ struggles to come to terms with the challenges of their day. He viewed the study and discussion of history as not much different from the study and discussion of today’s headlines. He was the one who propelled discussion. He’d sit in class and listen to one of his peers outline some half-formed outline of the plot of history . . . and two or three beats would pass . . . and he’d lift a finger and say, “Naah—and here’s why,” and offer three or four bits of historical evidence that proved him right and the previous speaker wrong. He’d then sit back like a Buddha and let the tumult of the classroom resume. He was above it. It was like he was a visiting professor.

“He had little tolerance for shallow thinking. His attitude was that these topics, though they might be a century or two in the past, were vital. Many of us are spectators in our lives; Mitch was a participant.

“He did not want to know what he needed to know for the test (well, of course he did, but this was not the point): he wanted to know what mattered, and what essential struggles these people dealt with as they tried to work out their destiny.

“And he led all of his classmates on a journey toward realizing that their education was about realities, not abstractions. He made them think; he surprised them in discussion; like his brother, he made them realize that education is about preparing for adult realities, and that the time to do so was limited.

“As we sort things after suffering a loss, we search for evidence that events make sense. Mitch’s loss may not exactly make sense, but I would like you

to know that—from my perspective—Mitch’s life had great value. I looked up and reread my grade reports on Mitch. A teacher only knows a part of his or her student’s lives and personalities, but sometimes we can sense a spirit beyond the grades and scores. In Mitch’s case, I sensed a great centeredness, and maturity far beyond his years.

“Of course he had the Sanchez gift for irony—and even sarcasm. I think he wished that his fellow students sensed life with the same intensity that he did, and saw that their lives were not flash-card abstractions, but a preparation for the business of living. When they seemed not to appreciate that their educations had a very distinct purpose, he would roll his eyes and let them have it.

“But when we are left with the terrible fact that Mitch is gone. I have been thinking about this a lot, and—as we all do when faced with this sort of tragedy—trying to find a meaning in it. It may seem a bit of a cliché, but I do believe that it matters more how well you lived than how long you lived. Mitch did not live long, but he lived intensely, and he lived well. He has the respect of friends, acquaintances, family: he leaves an important legacy.

“This should not have happened—you, the Sanchez family, are too warm and supportive a family to suffer this sort of tragedy. But then I realize that destiny has all sorts of surprises in store for us, and I wish that we could somehow be prepared for them.

“You can’t, I suppose—but we wish we could bring bandages for our friends who hurt this way.

“So Mitch leaves a very real mark on this world; all of his classmates are different and better for having shared time with him. I am different (and, I hope, better) for having had a student with Mitch’s intensity in my life. It’s almost as though some people know they aren’t going to be among us for long, and they live very intensely while they’re here, before they go on to the next chapter in their soul’s agenda.

“Because of Mitch (and, of course, Freddie) I have come to know a very special family. I send you my best wishes, condolences, and love.”

Then Solera, friend of Katie, Mitch’s girl-friend, stood and went to the front to read Katie’s eulogy. “I’m Solera . . . I’ve known Katie and Mitch since Middle School and I was Katie’s roommate for two years in Santa Barbara, so I know this couple well. Katie wanted me to say a few word about their life together.

“It was the beginning of seventh grade in Mr. Campbell’s class when I saw him. The boy in the red all-star jacket with the name Fred running across the front. He had the goofiest haircut and I fell in love.

“My entire Middle School diary documents this torrid love affair—the only problem was Mitch had no idea. With every seat change I hoped for a better view of him, or even to be close enough where he may ask to borrow a pen. Here are a few excerpts from that seventh grade diary.”

“Yesterday Mr. Campbell moved our seats and now I sit one seat behind Mitch. But Jeff has a huge head so I can’t really see Mitch. I wish Mr. Campbell changed our seats again only this time we’d be the only ones there. Just me and Mitch side by side—not in desks.

“Or when we came back to school after Christmas break and I wrote, “I think over Christmas vacation I may have forgotten how cute he is. His eyes are green and gorgeous and his hair is indescribable.” I also described our first dance and still remember the smell of Pantene in his hair. “Yesterday we had a dance and Mitch asked me to dance. Even if Kristine told him to ask me, we were still holding each other for twenty seconds.”

“Somehow back then I knew that we were meant to be together and it only took Mitch five years to realize it. Finally in our senior year of high school we reunited.

“Dino and I shared so many wonderful times together traveling through Europe, going to Mexico, drinking wine, dancing and singing, and just snuggling and watching the Simpsons. The last five years of my life have been so special because of what we had. Mitch taught me what honest, unconditional, true love really is.

“What I loved most about Dino was how silly he was and how he brought that out in me as well. He was my best friend, my Dino and my soul mate. I am so thankful to have had him in my life. He made me a better person. Even if he didn’t always return my calls when he got carried away with his creative projects or somehow left me stranded at the airport in Acapulco for hours while he enjoyed a ride on the Aka Tiki boat, I never doubted for a minute how much he loved me and I know how much he was loved. Two nights ago I had a dream. Mitch was visiting me in New York and he was so happy and healthy. He was glowing and golden and full of life. This dream has given me comfort and happiness. I know that Mitch is with me and everyone he loves. He’s taking care of me; he will always be with me.”

Mark, Pat’s brother spoke next, “Mitchell was born in the wake of the tragic loss of our brother, his uncle “Mitch” and like his uncle he too was beautiful. Beautiful hair, smile, a body to die for, and those green eyes. Such gifts. Unfortunately for us these guys were not meant to be long for this world.

“The way Mitch looked at life he saw things different than most of us. He was kind to people, friends, children and animals. He was curious,

asking many questions and looking for answers. Now he leaves us questions, remembering his smile, his glance, and his voice.

“Pat and Fred, my sister and compadre you are paying the ultimate price to be parents. You ARE great parents . . . Pat I know your move back from Mexico was not so easy and starting a business with two young children at your feet took a lot of courage. I remember at the time you told me you had to do it for your sons, for their future.

“Well you guys have done it! When Freddy graduated from Berkeley and Mitch from Santa Barbara you reached a high that very few parents experience. May that joy carry you for the rest of your lives.

“And lastly to Freddie-boy, you and I have a bit in common. We have parents who have lost a son. Grandparents who have lost a grandson and we have lost a brother. Someone told me twenty-three years ago that a day would not pass without my thinking of him and he was right. Mitch will always be with you giving you strength and love. And although at times you will miss him so bad, remember the good times and the joy that you two shared. He is with his uncle now and they together are creating a new flying machine.

“A baby, a son, a brother, a grandson, a nephew, a godchild, a cousin, a boyfriend, a friend, a student, a classmate, a musician, an artist, a poet, a surfer . . . A Dream.”

Chris Little, Mitch’s friend since the fourth grade addressed us: “If I could describe the effect that Mitchell Sanchez had in my life in one word, I would say Inspiration. Whether it be, wanting to be cool, or being able to talk to the ladies, or knowing how to make people laugh, or knowing how to take life and yourself to the edge and the extreme. Mitch inspired me through example to do all those things and more. As a kid growing up down the street from him in Carmel Valley, I went to his house almost every day not sure whether I’d be coming home bruised and broken, or excited about my recent adventure. But I knew something fun was going to happen because it was “Mitch’s house”.

“As we grew older, Mitch kept that same quality that had always inspired me to be creative and take chances, things became geared more towards learning when we camped out in his back yard and read *Catcher in the Rye*. We started our first year of college in Santa Barbara and Mitch passion for life grew as he gained the desire to write, travel and experience the world. He began taking engineering classes and started building and designing stuff like Go-Karts, and helicopters. That was another thing that I admired about Mitch, he was in school seeking an education, learning about the things that he wanted to learn about, he wasn’t there for a piece of paper.

“Our last quarter at UCSB we did a design project together. Mitch had the idea and drew up all the plans. He wanted to make a steam powered film projector. I laughed at it and said, “what the hell,” so we made it, well, we made half of it then ran out of time. But only Mitch would come up with the idea of wanting to make a mini steam engine power a film projector so that we could watch cartoons on a wall.

“I wrote down a few of my favorite memories with Mitch, I’m sure many of you share some of these:

“Bungee Jumping off Boronda Bridge—Cliff Jumping at Porters—Hours spent on the trampoline and in front of the Nintendo—Guns and Roses—BB guns—Our first time snowboarding when Mitch stuffed a pillow down his pants for cushioning and later took all my dad’s money playing blackjack—The Middle School Talent Show—Ripples—Tennis ball launchers and boxcars—The back seat of a bus—His red hat—Playing Music—Hours of conversation at the UCSB Coffee Shop—Night Surfing—reading Sadartha at Carmel Beach—One of my favorite things to do . . . watching him ride a skateboard—And my most favorite thing to do . . . Listening to him play the piano.

“I have so many great memories and experiences with Mitch, as I’m sure all of you have had as well. There is a huge part of who I am that wouldn’t be here if it weren’t for Mitch and I know that he will live on through the impact and influence that he has had in all of our lives. I love you Mitch, thanks for being a part of my life.”

My father followed, “Good morning to all. Congratulations for such a beautiful church. I would like to thank reverend Gudenberg on his help with this memorial. I would like to thank you all for coming and being with us. I am surprised that so many of you came to support us in these difficult times. I also want to publicly acknowledge and thank Donaldo for the difficult tasks he has performed in relation to Mitch’s death. In our family we have been blessed to die in order, the oldest first. This is the first time in my life that I am the oldest member of the Sanchez family. Mitch was the number three of the line up of my grandchildren and number 60 of the family line. It is supposed to be my turn. But Mitch, as a good Mexican “jumped the line”—the line of life should not be jumped. I never thought I would bury my grandchildren, much less in the United States. Donaldo showed me his last photo and he is looking at a belly dancer and smiling. He had a great life, great parents, great brother, great friends; he was loved by all. There is no way that he decided to end such a life. He was possessed by internal sources; they are the ones that died not him.

“Your president George Bush has been insisting on good neighborhood to all. When he speaks you all listen, and you have done a great job, extending his indications as far as your neighboring country, Mexico . . . We all thank you, and to us now, we are all family, so Mitch left us a great legacy.

“Thanks again and good luck.”

Mitch's Spanish teacher spoke about some of his qualities as a student, “I would like to say a few words . . . in Spanish; Yo conocí a Mitch cuando vino a mi escuela. No hablabamos mucho en clase, pero siempre hablamos afuera de muchos temas. Cuando llego a mi clase siempre teniamos discusiones de ideas diferentes. Siempre estabamos en contradicciones, pero al final llegabamos a un acuerdo. Lo recuerdo sentado enfrente de mi con sus ojos grandes verdes, sentado hasta atras con su largo pelo, su cara de aburrido, pero no decia nada, siempre tratando de que todos participen, no? Lo que mas recuerdo es su gran poder, su fantastica mente para escribir los ensayos. Al principio discutiamos con el. Por que esto o lo otro. Si usted no me quiere por que no me da una “A”. Si te doy una A cuando pongas todos los acentos y puntuacion. Nunca he encontrado un nino que me de tantas ideas de por que habia escrito esto o lo otro. Yo esperaba ansiosa que llegara el viernes para poder leer todas las ideas que se le ocurrian. El era diferente con su mente fantastica. Otra cualidad, a pesar de que estaba atras sentado, siempre dejaba a sus companeros hablar, nunca los hacia sentir mal; era humilde y generoso porque siempre los ayudaba. Otra cosa, venia con unos pantalones anchos y yo le decia, “Mitch, se te van a caer los pantalones y te van a mirar todas las chicas.” El me contestaba, “No importa. Que vean.” Yo se que ese nino esta arriba mirando a sus padres, a su hermano, a sus maestros y amigos. Gracias por permitirme compartir estos pensamientos con ustedes.”

(I met Mitch when he arrived at my school. We didn't speak much in class, but outside we always talked about many subjects. In my classroom we always carried on various discussions. In general we started from different points of view, but ultimately we'd come to an agreement. I remember his sitting in front of me with his big green eyes, in the back with his long hair, an expression of boredom, but he would let others speak up, always trying to have everyone participating. What I remember best were his great powers, his fantastic mind to write essays. At first we'd hold arguments with him. Why this or that. If you don't like me why don't you give me an A.? I'll give you an A when you have all your accents and punctuation in the right place. I have never met a boy that can give me so many ideas about why he wrote this or that. I waited anxiously for Fridays to be able to read all his different

ideas. He was different with a fantastic mind. Another quality, even though he always sat at the back, was that he always let his classmates speak; he never made them feel bad; he was humble and generous and always helped them. And one more thing, he would show up with his baggy pants and I would say, “Mitch your pants are going to fall off and all the girls are going to look at you.” He would answer, “It doesn’t matter, let them look.” I know this boy is up there looking down on his parents, his brother, his teachers and friends. Thank you for letting me share these thoughts with you.)

Jack, another one of Mitch’s friends spoke next, “Mitchell: I remember seeing Mitch on an opposing baseball team when I was in the 8th grade and thinking who is that kid with the long hair and the karate pants. The image really stuck. When I was a sophomore at Carmel High I would see him with his skateboard and he would show me the varial flip or the double kickflip. I was always amazed. He made it look so easy. As that year passed, I got more into skating so we would see each other around more and became friends. He had his baggy pants on and his skater image going. I was just like “yeah, this guy is cool.” Always having fun and still managing to pull his own weight in the classroom. I was always envious. I wanted to have what he had. So much talent; excelling at everything he did. Skating, snowboarding, art, music, school, surfing, and it goes on. It was always some new homemade project with him. Soap box cars, bungee chords, ramps, steam engines, helicopters, go-karts and it goes on again. I always wondered where does he come up with this stuff. A great mind. Caring, compassionate, inventive, outgoing, outspoken. A true friend. A best friend. He always, indirectly, pushed me to be better. How could I not want to be able to perform at his level? To think in such a creative mind. And now as the winter rolls in and my snowboard buddy isn’t there flying past me down the slopes at Northstar, I’m going to envision myself as him, spinning so smoothly through the air, and try to fill the huge shoes he’s left in my mind. I love you Mitch.”

Mitch’s aunt Laurie wrote him a poem, “Mitch—A Shining Star.”

*Stars in the night shine brightly on us all
Some last for centuries while others quickly fall.
The amount of time isn’t what matters most
It is the beauty of light shed, we toast.*

*Like a shooting star, Mitch’s light amazed
His loving nature and playful spirit blazed.*

*Immersing himself into the galaxy of life
Filled much more with joy than internal strife.*

*Multi-talented, a young man with many interests
Playing piano, painting and literature were a few on the list.
Surfing and building flying machines that can
Some would say he was a Renaissance man.*

*As a child, Mitch was a sweet heart, cute as can be
And as he grew up the girls did agree.
Out of all, there was one that would fill his heart
Her name was Katie, beautiful and smart.*

*Family and friends all will attest
Look to Mitch for good times at there best.
Carmel or Mexico, pick the place
Loved ones looked forward to his smiling face.*

*Raised by parents who supported and loved
And an older brother, Mitch looked to above.
Admired by cousins, they were in awe, under his spell
No one did acrobatic rotations in the air that well.*

*Mitch loved to converse and philosophize
Including abstract matters and questions about lives.
Conversations during dinner and late into the night, we'll cherish
This will live in our hearts and not perish.*

*Although today we feel such sorrow
Knowing Mitch will not be physically with us tomorrow.
We can gain strength from the brilliance of his light
For he is our shining star in the night.*

*When you look at the night's sky
Think of Mitch not with a tear in your eye.
Find comfort in the brilliance and sparkle above
And remember him as a star with affection and love.*

And my sister Susana closed with thoughts of spirituality.

“Soul’s main concern is to unfold spiritually. Before Soul comes into the physical world, It shops around on the inner planes looking for the best set of circumstances that will allow for this spiritual growth to take place.

“Then Soul picks a family. A family of Souls pick each other and they all agree to help one another develop spiritually during the lifetime they are about to spend together while on Earth.

“When Soul arrives to the physical world, It acquires a brand-new vehicle within which to navigate. It slips into a tiny, baby body. In the beginning, Soul feels trapped inside this body over which It has absolutely no control. The baby body can’t talk, it can’t walk, and I think I will spare you the details of the only things it can do.

“Then Soul gets the feeling that this situation is familiar and It starts to kick around desperately, crying and yelling and begging at the top of Its lungs: “Will someone please get me out of here?”

“But the parents and the friends just stare back at this baby body and say: “Oh, isn’t he adorable? He looks just like Uncle Albert!” And Uncle Albert is anything but adorable.

“Then they all hug and congratulate each other, celebrating and buying gifts and chocolates and cigars and flowers and signs that announce proudly: “It’s a boy!” or “It’s a girl!” Maybe the signs might read instead: “It’s a Soul! Immortal and eternal!” which means, “Not ruled by human concepts of space and time.” What’s most important is this: it means that the love shared between two Souls transcends all mental and physical boundaries.

“Eventually during the span of this lifetime, the awakened Soul learns to move simultaneously between the physical world and the spiritual worlds. Every night when the physical body rests, Soul travels to the spiritual worlds or the dream worlds. Since these worlds are the same place where Soul will go when Its clay temple decays, Soul is able to meet with loved ones in the dream state while still living in the flesh.

“Then finally (sometimes later, sometimes sooner), the time comes for Soul to permanently slip out of this body. It does so for spiritual reasons that those of us who stay behind don’t necessarily understand, but this body is no longer useful to Soul, or to Its goal of developing spiritually, ever and ever more.

“Now it’s the family’s and friends’ turn to kick around desperately, to cry and sob uncontrollably finishing off boxes of tissue one after another, anxiously devouring all the chocolates and getting all the pimples (like me).

“And the only one who seems absolutely blissful and delighted is Soul, because It’s not only wiser, It’s free again—free from the trials and tribulations of this old school called Earth.

“My sister-in-law, Pat likes the following quote very much.”

*“Each one of us travels a path of
spiritual unfoldment, only partly visible to others.
This is the secret inner side of life,
our private communion with God.”*

“My nephew Mitch was a serious, true spiritual seeker. I’m sure he will continue to be in the spiritual worlds because his journey home to God does not end with physical death, just as it didn’t start with physical birth.

“Ever since Mitch was little he seemed to be passionately searching for God. He would explore divine love through his music and when he’d find it, he’d express it through his songs. Mitch was constantly expressing his love for God through his poems.

“To me, every time he did a wild stunt on his skateboard or snowboard, while skiing or bungee jumping off a low bridge, he was just demonstrating that he had what those of us who want to reach God might want to work harder on. (I don’t mean “reaching God” in a physical sense.)

“Mitch had the self-discipline and the heart to push the envelope.

“I don’t know about the ocean here, but back in Mexico I saw Mitch fiercely surfing way past the last thirty-foot waves of the Acapulco open sea many times. This kind of “whatever-it-takes” attitude is definitely one of the qualities of a true spiritual seeker.

“It’s possible that in his search Mitch might have felt afraid or lost many times, but hey, who hasn’t? Regardless, he always got back up and showed the willingness to try one more time. He wasn’t afraid of falling, as he showed us last night on the skateboard video that his friends put together for us.

“Mitch’s love for life and love translates into his love for God. And his love for God was always greater than his attachment to his fears.

“Whatever each one of us may conceive of God to be, God is in everything. God is everywhere. Most especially God is in the smallest, most insignificant daily things, such as a tiny blade of grass. We just need to learn how to recognize this divine presence and remember to look for it. If we focus with the heart, just the way Mitch lived all his life, we *will* find Mitch in this divine presence and then we will know for certain that he is not gone.

“These last quotes come from a book called *Stranger by the River* by Paul Twitchell, another great spiritual seeker. My brother Fred asked me to read them to you.”

*“Births and deaths mark the journey of Soul.
The translation from one stage of experience
to another is but a further step on
Soul’s journey home to God.*

*“God loves and takes special care of those
who love Him with all their heart and Soul,
and gradually draws them toward Himself,
the center of pure Light.*

*“There, my son, is love. The love that makes
all things beautiful. Yes, and breathes divinity
into the very dust you tread.*

*“With love shall life roll on gloriously throughout
eternity, like the voice of a great music that has
power to hold the hearer’s heart poised on
eagle’s wings far above the earthly world.”*

“Thank you all for sharing your love for Mitch and Freddy and for my sister-in-law Pat and for my brother Fred.

“Mitch lives in our hearts and in the heart of God. Those of us who believe this will see him in our dreams.

“May the blessings be.”

Then I closed recounting my experience with the hawk.

After his memorial, I came to realize that many things that made him special were never mentioned; his love of children, how he adored animals, and what a great water skier he was.

I found a napkin from a restaurant at the Mexico City airport among Mitch’s personal belongings, on which he wrote the following in the summer of 1998; it gives a small glimpse into the relationship Mitch had with his younger cousins;

*“Nine o’clock and I was up and at them! Ready to face a long day
of travel and dressed in my favorite blue shirt. I said good-by to my
hosts (his uncle Othon and my sister Susana). Tears running down her
face, I kissed my cousin Othiana (my sister Susana’s oldest, eight years
old at the time). Carel, (the second), my precocious five year old cousin
jumped up and wrapped his arms around my neck, clinging for dear*

life. I pushed some fruit forcefully down my mouth; mostly grape fruit and mango—and I was on my way. I struggled fiercely carrying my large golden suitcase into the white mini-van. The passenger's seat was my domain and playing with the radio was my activity; one I could indulge upon riding, half tired from the night before and enlightened from the weeks past. Although I was comforted by the euphonious sounds of the radio I was distracted by the stinging burn in my heart.”

All Mitch's younger cousins adored him. He would always seek them out and make them feel special; the older cousin interacting one on one with the younger ones; even sometimes, giving preference to his small cousins above his own peers.

After the memorial, I said to Freddy, “You and I know what motivated him to be a serious student. You and I know why he tried so hard to be as good as he could at everything he did. He had to deal with you and me as standards of comparison.” I wondered if Mitch ever knew that he was, perhaps, better than us; certainly at some of the things that he excelled in.

The day after his Memorial Service while we were having lunch with my father and mother, we were commenting on how extraordinary it had been. I was still very much aware of how much everyone needed me to get through this terrible tragedy. I turned to my son Freddy, “I was proud to be his father. You should be proud to be his brother.”

“I am,” my son answered with a tear in his eye. “I am.”

In hindsight, I see better, that my composure, even though it came at great effort, helped others. I knew that the real struggle to overcome such a huge, permanent and brutal loss would come later, when all left and I would be left alone with the mother of my child. Even she, could be of little help, but I hoped I could help her. I confirmed I had partially accomplished my goal of helping others get through this tragedy when first, my father, and then my brother-in-law Rogelio (both of whom had flown from Mexico to be with us, and had left a few days before) called me, and both ended their calls with, “I miss you.”

~

Mitch attended a few Sanchez Opens. The Opens were an excuse for the Sanchez family members to get together. There, as well as at our annual Christmas Eve dinners in Mexico City, Mitch had the opportunity to meet many of my cousin's children. We received this letter from my cousin Javier

and his wife Alexis who live in Mexico and couldn't be with us. Their three sons, aged 13, 11 and 7 had met Mitch on just a few occasions:

November 19, 2002

Dear Pat, Freddy Jr. and Freddy:

Alexis, the children and I have been thinking a lot about you all and Mitch. About what a great family you are, how supportive, how generous, how communicative, indefatigable . . . About Mitch, even though the opportunities were few, our memories of him will never be forgotten; he who on his second time skiing, did the tantrum, the one who did the 720 degrees in tumbling, the one who took me surfing, innocent, introverted, passionate, sensitive, charismatic, the singer . . .

We feel very fortunate to have known him and have memories so clear, so fresh, so close. We join all with our confused feelings, when someone so close, so dear, so loved, irrevocably takes such a hard decision.

We join you in your reflections, in your pain, in your fight to retake the road of life with the great void that Mitch leaves us, bare of dimensions that unknown to him he would leave behind and that erroneously he thought he would quickly heal.

Pat, Freddy Jr. and Freddy, we love you and hold you always in our hearts.

*Hoping to see you soon,
Alexis, the boys and Javier*

The Search Continues: Brain Research and Grief

I was reading a book on the holographic interpretation of quantum mechanics. I was forty years old at the time. A hologram, in a very simplified way, is produced by shining a laser beam on an object. The beam is reflected, diffracted and scattered by the object and then passes through a holographic plate. Simultaneously part of the laser beam is split off as a reference and is reflected at a specific angle by a mirror onto the holographic plate. The two laser beams interfere with each other, producing a series of dark and light bands; light bands result when the two beams are in step, when the crest of one meets the crest of the other and the trough of one meets the trough of the other; and dark bands appear where they cancel each other. These dark and light areas are called interference fringes.

The image on the plate bears no resemblance to the object photographed. The plate, however, contains a detailed record of all the phase and amplitude (the frequency and the height of the crests and troughs) information present in the beam that was reflected from the object. By reversing the procedure, shining a laser beam of the same frequency at the correct angle, the interference fringes act as a diffraction grating, bending or diffracting the light to reverse the original conditions of the laser that created the hologram. As a result, an image that can be photographed is created in three dimensions.

One interesting feature of a hologram is that if you cut the plate in half, the intensity of the image is cut in half, but the whole image is still represented. If you further cut it, the image fades more the more you cut it. The curious part is that a small piece of the holographic plate retains the information of the whole, but it will yield a washed out image; the smaller the fraction of the holographic plate the more washed out. Another interesting thing is that the same plate can be used to store many different images, by either changing the frequency of the laser beam, or changing the angle at which you split the original laser.

I have been attracted to the possibility that the brain's storage systems can be modeled on the hologram. For example, the neurons different firing rates could represent frequencies, and a different number of connections could

represent angles. This type of modeling could be very powerful. It would be a model that could store a lot of information in a very small volume, and could “tag” information using combinations of frequency and angle, as well as retrieving related memories or information because of similarities in frequencies or angles. This model would easily permit you to store an almost infinite amount of information in a small mass.

An elegant, potential retrieval system could be modeled using these different angles and frequencies. It could neatly explain why memories can fade over time (the hologram is smaller) or why a particular memory brings up a whole series of associated memories or ideas (a similar angle or frequency). This model, however, would stand as a mathematical substitute for the real neuronal networking, and would only serve as a metaphor of how vibrations (firing rates) and angles (connections) can create memories of past events. It doesn't even begin to tackle the problem of attention and awareness. It would just explain a mathematically possible method of storing information. Similarly, just because the computer can retrieve information with an instruction, doesn't mean the computer is in any way aware of what the information means.

In the interpretation of quantum mechanics from a holographic perspective, the vibration of the nothingness together with the right interference patterns makes the Universe spring to life. This is a very strange concept because the Universe is here and not here at the same time. It is here when you have the correct interference, meaning having the right senses to detect it; it is not here if you can't detect it or tune into it. Fortunately we have evolved the right senses to “see” this Universe; otherwise we could not detect anything. The Universe, or us, ultimately, could or could not be here, in a real quantum-mechanics indeterminate sense.

One evening, before dinner with my wife and children, I was pondering these strange ideas. I was sitting outside at night trying to envision a vibration of the nothingness. Not an easy task, as I find that the mind is very uncomfortable with a blank or trying to fill it with nothing. It is easier to imagine infinity, more of the same never ending! Suddenly the quality of my vision seemed to change, slowly at first and very subtly. My normal vision seemed to be replaced by thousands of pulsating dots, which changed in size, and pulsed at different frequencies. The dots seemed to be moving around each other as if they were dancing.

One of the strange effects of this was that I could see through these pulsations. The best that I can describe it is a feeling I was both seeing the objects and seeing through them. I could see through the chair, then through

the tree, then through my house, then through the neighboring hill. I found myself staring into the infinite nothingness. I could “see” the etherealness of our physical Universe. I was staring fascinated, trying to control what I was seeing, or better yet, what I was not seeing, slowly overcome by an indefinable fear. Perhaps, it was a fear of hallucinating, perhaps a fear of the nothingness itself. The sensation that death and nothing is the same crept into my awareness and my fear increased. I tried to bring the fear under control, and through that effort, slowly my vision returned to normal and the fear dissipated. I had no conception of how much time had elapsed. I walked into the house and Pat was already having dinner with the boys. Surely, I thought, it would be useless to try to relate my recent experience to them.

Another curious thing that happened as a result of this experience was that for the next two months I couldn't dream in full color. My dreams came into my awareness in a black and white version of the thousands of dots. I was *seeing* in my dreams as I *saw* that dark night. I was seeing through things and seeing them at the same time. My full Technicolor vision was replaced in my dreams by representations made of dancing, pulsating dots. I still knew what I was seeing in my dream, but it was a very different kind of seeing. Thinking of quantum mechanics and the nothingness had been able to intrude in my way of dreaming; and it had momentarily altered my vision. It was as if in a strange way my thinking resonated with my visual system and altered my perception of what and how I saw. Especially in my dreams.

~

When my two sons were growing up, and all through their high school years, my wife and I would sit down with them and have formal dinners in our dining room. I would have lively discussions with Freddy, and Mitch on many topics. Many a time, particularly during Freddy's junior and senior year, we talked about physics and math. My wife would say that I pontificated, not held discussions, but this I attribute to the fact that she didn't much care for or understand chemistry, physics or math.

When my son Freddy graduated from Robert Louis Stevenson School, he went on to live in Berkeley where he eventually graduated as a Mechanical Engineer from Cal. I was very saddened by the fact that he had left the home nest, but greatly gratified to discover that my youngest son Mitch, as he started his junior year, also became interested in physics and math. Soon, our discussions about science got as lively as they had been when Freddy was still at home. At one point Mitch was insisting that he wanted to go to MIT

and study Engineering. We would discuss, as I had previously with Freddy, cosmology, quantum mechanics, the working of springs or cams or whatever he wanted. I was amazed by the wide range that our discussions covered. I enjoyed tremendously seeing him stretch his mind.

In Mitch's senior year, one evening, I described in detail, as best I could, my experience of observing the nothingness—the strangeness of the experience, the warping of my dream states, as well as the weirdness of “seeing” the nothingness.

Shortly after, Mitch suffered his first panic attack. The first time, Mitch as well as his mother and I had no idea what this was. He didn't even have a vocabulary or the experience to explain what was happening to him. A panic attack is difficult to describe, especially when you are not aware that fear is the main feeling. The eyes shift quickly from side to side as if searching for something (a threat); the breathing is quick and shallow as if trying to oxygenate the body; when the flight-fight response is not acted upon, as there is nothing to fight or flee from, the body twitches in small spasms as if there is some physical pain. By observing someone going through a panic attack, it is hard or impossible to determine what he or she might be feeling, perhaps fear, but it isn't easy to read. This intense fear, since it is irrational, can be confused with some other unknown feeling. The fear intensifies and grows to a maximum in about ten minutes and might then last up to an hour. It is very disturbing to witness, as nothing that one can say or do alleviates the condition. In extreme cases, the fear can escalate and give one the sensation that death is imminent.

I wondered, sometimes, if maybe some of the concepts that I had discussed with him, particularly the nothingness, could be something that could cause a young immature mind to warp and produce these terrifying effects; could he be seeing the nothingness? I also wondered about the possibility of physics and math becoming associated by accident with the panic attack, because this activity had coincided with the onset of the attack. I also wondered if perhaps, the mental effort of heavy analytical thinking could be related to *opening a back door* in the mind that would allow the panic attack to explode unchecked. For the first time in my life I had encountered something that I had *absolutely no idea* of how to advise my son. I was completely impotent in the face of this terrifying experience. I had never even witnessed something of this nature, much less so close to my heart.

However, as I looked back on my own fascination with science, and physics in particular, I truly could not blame or find a way that, battling intellectually with a concept, even such a bizarre concept as the nothingness, could disturb the mind in such a way. It had to be something else. But what?

The last entry in a notebook Mitchell was using to make notes to help him solve problems in his computerized drafting job in July of 2002, reads as follows:

*Did you ever dream of a place that made life seem wonderful?
A place made of queens and princes and where trees swayed
And nobody cried or suffered.
Did you ever feel the cold wind blow and know
That it was time to go away for a while
If life can twist your mind into a knot
Then maybe the wind can set you free—
Free from all the things that keep you locked inside.*

I read many theories about why suicide happens. Even though many of these models are outdated, they continue to be used by therapists for lack of anything better. Most of them are very naïve, or at the very least didn't apply remotely to my son.

One of these theories proposes fantasies of a reunion with a deceased loved one. I am sure that some suicides have occurred during a grieving period, but we all know many who have lost loved ones and didn't kill themselves. People don't kill themselves because someone dies. Yes, I lost my sister, Minnie, and Mitchell lost his dear aunt a few months before his death, but I am certain this didn't have anything to do with his suicide.

Some think that suicide is caused by unhappiness. If this is true, since unhappiness is impossible to prevent, kids should be told that the happiest people are not those with the fewest problems, but those with the best coping skills. On the other hand, there is definitely some element of emotional pain involved in suicide, and this would definitely cause unhappiness. But the unhappiness doesn't lead to suicide. We all have been unhappy at one time or another in our lives.

Some schizophrenics have reported that they feel infested with a persecutor that they identify with their own bodies, consequently it has been assumed that they committed suicide to escape from this tormenter. Others blame their bodies for life's disappointments and carry grudges against them. Other researchers have come up with various explanations of suicide. For example,

K.A. Menninger back in 1936, tried to tie suicide with masturbation in a strange form of association of guilt and aggression. I can't argue that such cases didn't exist, but definitely they don't pertain to Mitchell.

Similarly, childhood abuse, abandonment and sexual molestation have been documented to have existed in some suicide cases. They might be part of a complex web of events and mental states that eventually might lead to suicide. Yet, this doesn't mean that these terrible experiences per say are the cause of suicide. Many who have suffered these childhood traumas and even more do not go on to annihilate themselves. And certainly, I am sure that none of this has anything to do with my son. I admit that we traveled four or five weeks a year, a week at a time, for business reasons while my son's were in Middle School and High School, but they generally stayed with their grandmother or at friends' homes. I can't really say that this is a case of abandonment. Perhaps some might argue such a thing.

Many confuse symptoms with causes of suicide, such as certain unsatisfied needs, as if suicide was a rational, even though highly distorted behavior. From this point of view we encounter such ideas as thwarted love, lack of acceptance and or belonging, lack of achievement or understanding, avoidance of shame, defeat, humiliation or disgrace, and even excessive anger, rage or hostility, as the causes of suicide. We must keep in mind that these are only symptoms of some other underlying mental state, but not the cause of the mental state, and definitely not the cause of suicide.

Some, because suicide is such a violent act, insist that there is a huge element of aggressiveness. My son was a gentle soul, and the most aggressive story I ever heard was one he recounted when he lost his temper in a public bus in Santa Barbara while he attended University of California. In his words, "This dude got on the bus and he was drunk, or on some kind of drugs, or both. He was just weird. He spoke with a slur and walked drunkenly. He sat next to a young girl (young like me, nineteen or twenty) and started harassing her. Something in me snapped and I got up and told the guy, in no uncertain terms, to stop or I would be obliged to throw him off the bus. At this moment, I realized that I was putting myself in potential danger, as I didn't know how a drugged or incoherent dude might react. But he got up and moved away from the girl and sat alone in the back of the bus. I felt a deep satisfaction, even though the girl didn't even acknowledge what I did. Perhaps she was just scared."

Freud saw suicide as an act of hostility against the self. My son was (and he knew it) a handsome, intelligent, athletic, kind fellow, liked and respected by his friends and peers. Perhaps, he had, especially in his darker moods, some

self doubts, especially about the uncontrollable aspect of his panic attacks. But that in itself, would be a very superficial explanation of his suicide.

D.H. Buie and J.T. Maltzberger summarized the state of mind of a suicidal person as having two types of impulses: murderous hate and an urgent need to stop suffering. I certainly agree that there is an element of suffering, probably great suffering. Murderous hate is something that probably is manifested occasionally alongside suicide, but I'd bet it is only in a small percentage of cases, and still a long way from explaining suicide.

The majority of the latest models proposed that are specific to suicide and suicidal behavior are, essentially, variations of the diathesis-stress-hopelessness paradigm, well articulated by D.E. Schotte and J. Clum. Diathesis-stress models hold that people may have either genetically based or environmentally acquired trait-like, individual-level vulnerabilities to the onset of a disorder. These vulnerabilities constitute the diathesis part of the model and set the individual's threshold of susceptibility to stressful conditions. Given the genetic vulnerability, the stressors act as precipitants to the onset of more serious dysfunction. The diathesis-stress model proposes that deficits in interpersonal problem-solving skills predispose individuals under chronic stress to depression, hopelessness, and suicide ideation. However, it is now generally concluded that interpersonal problem-solving deficits may be a concomitant, rather than a cause, of depression, hopelessness, and suicide intent.¹

A range of variables has been proposed as underlying diatheses or vulnerabilities triggered by stress, both acute and chronic. Among the most frequently cited diatheses are dysfunctional assumptions, cognitive distortions and cognitive rigidity.² Once individuals "acquire" vulnerabilities, the specific manifestation of a disorder that emerges will depend on or be triggered by identifiable, quite specific "risk" conditions that describe the person's recent life experiences. These late-stage conditions are often mistaken for specific causal factors.³

There is, in general, a simplistic approach concerning suicide and attempt deep philosophical questioning. Some consider that some truly wish to end

¹ Schotte DE, Cools J, Payvar S, *Problem-Solving Deficits in Suicidal Patients: trait vulnerability or state phenomenon?* J Consult Clin Psychol. 1990. Oct; 58(5):562-4.

² M. David Rudd, Thomas Joiner & M. Hasan Rahab, *Treating Suicidal Behavior*.2001. Page 16.

³ R.W. Maris, et.al., *Assessment and Prevention of Suicide*.

their lives, but that the majority of those who attempt and/or complete suicide want to end a devastatingly painful situation, more than they want to live, which is different than truly wanting to die. The logical corollary to this approach is that if they could find a way to solve or end their problems other than through suicide, they would do so. I think suicide is a more complex mental state than that.

At present, and perhaps closer to the truth, in cognitive behavioral models, the most widely accepted model of suicide defines a suicidal mode. This is done by establishing the idea of core beliefs that permeate the cognitive triad: 1) the self; 2) others; and 3) the future. These core beliefs, the model asserts, fall primarily into three domains: helplessness, unlovability and poor distress tolerance. All these ideas might be beneficial in a therapeutic environment with lack of a better theory. This implies that suicide is related to low-self esteem, as viewed by the individual as well as others, and an inability to change this in the future. The suicidal patient is viewed as going in and out of this suicidal mode. All of this might apply to people that have attempted suicide previously, but I do believe that there are many cases where the first impulse to commit suicide is the last act in a young life. How do we explain that? In the case of my son, Mitchell, all doctors or therapists that saw him concluded that he was not suicidal. None of his friends, or his brother, or myself (probably closer to him than them the last month of his life), or my wife saw his death coming. Two weeks before he died, he was moving forward with the paperwork for a Masters program abroad, in Spain, starting in January of 2003. He simply wouldn't be doing that if he was suicidal. What for?

Others talk about predisposing vulnerabilities and triggers. This implies that people are born with a vulnerability, and in the face of certain situations they commit suicide because of this. I have tried, as a mental exercise, to see if I can come up with some strange combination of attributes of my wife and mine that would lead to suicide. I haven't been able to discern any such theoretical combination.

Another concept is the suicide zone, which essentially represents the convergence of multiple factors (e.g., situational stress, acute dysphoria, psychiatric disturbance, impaired cognitive functioning, deficient problem solving and limited social support systems). The concept is that when an individual enters the suicide zone the risk of suicide raises significantly.⁴ In this case, I would have to be forced to say that Mitchell was facing severe

⁴ David Rudd, Thomas Joiner & Hasan Rajab, *Treating Suicidal Behavior*.

stress (choosing a career, suffering a moderate depression and occasional panic attacks), he was feeling bad (true is an understatement), he probably suffered one or two panic attacks shortly before he died, and *because of that* he was deficient at problem solving, but he definitely did not have a limited social support system. Once again, I must insist that many face situations like this and do not short-change their lives. So this can only be part of the problem of suicide, not the explanation.

Edwin Shneidmann has proposed a conceptual model of suicide noting the convergence of pain (what he calls psychache), perturbation and stress. Suicide and suicidal behavior are viewed as psychological phenomena, a function of individual pain and tolerance. Both of which are determined, influenced, and modified by a multitude of factors. He distinguished between day-to-day needs and vital needs—those that when frustrated produce intolerable psychological pain and, if unchecked and under the right circumstances, can lead to suicidal behavior and suicide. He focuses more on the affective needs, emotional pain and pain tolerance than do cognitive theories, but his ideas can be placed within a cognitive therapy.

I had tried to remove all external stresses in Mitchell's case by having him live at home and work in the family business. He wouldn't have to deal with most minor stresses, such as rent, laundry or preparing meals, and at work, he would be given ample latitude in his work schedule as well as in his performance. In retrospect, this wasn't enough. He needed relief from whatever internal stresses were being generated by his mental and emotional state.

Thomas Joiner, whose father committed suicide when he was a psychology student, went on to propose a model of suicide building on Aaron Beck's (father of cognitive therapy) and Shneidman's theories. Despite the fact that he admits that 95 percent of suicides are related to mental illness, he proposes that the main causes for suicide are perceived burdensomeness and failed belongingness. To this he adds an element of hopelessness in relation to these two components coupled with acquired capability for self-harm. He also considers impulsivity as a possible part of the suicidal model, but he gives it a different twist. Of all personality dimensions, impulsivity has the most clearly documented association with suicidal behavior.⁵

Joiner would probably argue, contrary to what I would say, that Mitchell saw himself as a burden because he hadn't defined what his professional life should be; that he perceived himself as not belonging (perhaps because he

⁵ Thomas Joiner, *Why People Die By Suicide*. 2005.

had terminated and now wanted to re-establish his relationship with his girl friend). Hopelessness I wouldn't argue against, in the sense that maybe Mitchell, close to his death, perceived his mental state as hopelessly impossible of improvement. But he definitely didn't have any acquired capabilities for self-harm. He hardly drank, he didn't do drugs, and he was in excellent physical shape.

Since most of these theories or models of suicide left me intellectually unsatisfied and with very little that might fit Mitchell's case, I realized I had to construct another model that would explain suicide better.

Shortly after Mitch's death, one of the exercises that I found useful, as I tried to make sense of it all, was to attempt to understand how psychiatrists have categorized mental disorders, and glean some insight into how the brain really works. It is important to understand the prevalent approach to mental illness by the psychiatric profession. The psychiatrists, after all, have been observing all this for centuries, and there should be some rhyme and reason to their madness. I had to have faith that I could find answers.

My personal experience with psychiatrists, limited to Mitchell's experiences, for the most part, was not a good one. Different mental disorders are difficult to diagnose under the best conditions, and in the worst cases, can be confused by incompetent clinicians and doctors. Patients don't understand what is going on inside them, and it is very important to explain in detail, if possible, what is happening. Family and friends of the afflicted person need to understand the true nature of these diseases.

Thanks to Freud we learned a whole new language to discuss internal brain processes. Unfortunately his theoretical framework turned out to be wrong, and led us in the wrong direction for decades. In some psychiatric circles his ideas are still held as truth. I recall discussing Freud's theories with Tito back in the early seventies, when I was twenty. I remember when I repeated Tito's words to Mitch, "Freud is wrong. He states that every little boy wants to make love to his mother. That is pure nonsense. Freud bases his theory on the Oedipus and the Electra complex. I know perfectly well when I want to make love to a woman; there is no maybe, there is no perhaps. I know it." Mitch laughed at this notion. Tito continued, "And I know I never wanted to make love to my mother. There were many sexually repressed people in his time. Maybe Freud wanted to make love to his mother, and had to work some issues through, but his theories are wrong."

I discussed superficially with Mitch some of Freud's ideas, and in general recommended to not take seriously such concepts as the Id, the Ego and the Superego. Yet, I advised him to become familiar with Freud's terminology,

because much of it is still used and misused: particularly the terms conscious and unconscious.

In the years since Freud, many things have changed, but many of his terms, and some ideas, are still used. Today, if nothing else, the psychiatric community can, at the very minimum, offer us a vocabulary. Engineers, lawyers, doctors have their own specialized vocabularies to communicate with each other. Every field has their own terminology and definitions. Learning the vocabulary of psychiatrists to express what is going on internally is extremely useful. Just to use this vocabulary to communicate with others what is happening internally is very empowering, and can be the beginning of improving a seemingly hopeless situation.

To have a theoretical framework with which to attempt to explain different mental processes is helpful to put whatever is happening into a particular perspective. Yet, to have the wrong theory can lead down dangerous paths. Mistakes and wasted time are luxuries that cannot be afforded when facing certain mental illnesses.

I will present, as dry as it is, the concepts and definitions accepted by psychiatrists. They are the language that we use today. I recommend that anyone that has to deal with a psychiatrist at any level, learn their special jargon and terminology. It is extremely important, to help yourself or your loved ones, to understand clearly what a diagnosis means, and even if there are no doubts, to seek a second opinion.

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Published by The American Psychiatric Association, *The Diagnostic and Statistical Manual of Mental Disorders* is now in its fourth edition. It is known as DSM-IV-TR for short. I will simply call it the Manual. The fifth edition is scheduled to appear in 2012. The Manual is occasionally revised to incorporate advances in knowledge and reflect changes in attitudes. It classifies mental disorders for clinical, educational and research settings. Its main purpose is to provide clear descriptions of diagnostic categories so that clinicians and researchers can communicate in a standard language.

The Manual is organized into sixteen major diagnostic classes. My focus will be primarily with the second, fifth, sixth and seventh classes, relating to deliriums, amnesia and dementia, schizophrenia and psychotics, depression and manic depression, and anxiety and panic attacks, respectively. I do this, because approximately ninety percent of people who commit suicide are suffering from these mental disorders.

It is important to know the criteria for some diagnosis following the classes that the American Psychiatric Association has established. Understanding delirium, amnesia and dementia makes it easier to understand schizophrenia, depression and manic depression. Anxiety and panic attacks are often present simultaneously with the schizophrenia or depression, so an understanding of them is important to better understand suicide. The American Psychiatric Association doesn't consider suicide as a class by itself, a separate disorder, but as part of other mental disorders.

The manual defines criteria for each diagnosis. When these criteria are met, specifiers can be added to the diagnosis. Specifiers used are: Mild, Moderate, Severe, In Partial Remission, In Full Remission and Prior History.

There can be more than one diagnosis for a mental disorder. The principal diagnosis refers to a condition established to be chiefly responsible for admission to an institution. Sometimes it is difficult (and somewhat arbitrary) to determine which is the principal diagnosis when there are dual or multiple diagnoses.

Each diagnostic class has at least one, Not Otherwise Specified (NOS) category as well as a category when a medical (as opposed to mental) condition is suspected of causing the mental disorder. The latter will be determined by the history, physical examination or laboratory findings relating to a medical problem or a chemical substance. In most cases, the mental disturbance has to be severe enough to disrupt normal social or occupational functioning.

The manual uses terms like "fluctuate," "impairment," "failure," "persist a few months," "superimposed," all of which can be subjectively interpreted. So, diagnosing any mental disorder can be imprecise and problematic. The manual only describes "abnormal" conditions, it does not have a theoretical framework to explain why these "abnormalities" occur.

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As I wondered and battled with how to continue this story, I couldn't help but think about genetic propensities. My grandfather's words kept haunting me, "You have to beware of madness in the family."

Maybe I should've started this story on March 1, 1979, the day that my sister Minnie married my friend Pepe and my son Mitch was conceived. That night his genealogical makeup was decided. Half of my genes mixed with half of my wife's and created our unique Mitch. Could there have been something in that mix that led to Mitch's suicide? Pat's father suffered depression; my sister Minnie suffered anxiety attacks. Could there have been some genetic predisposition or susceptibility?

Or are environmental factors, outside stressors, more important factors? Then, perhaps the story should start June 16, 2002, a little more than 23 years later, the same day when Mitch graduated from the University of California at Santa Barbara and my sister Minnie suffered a blood clot that lodged in her lung? Could the events of that day set in motion a chain, that slowly, but inexorably, one link after another lead to such a terrible outcome?

That Sunday, my son Mitch graduated from college with a degree in International Studies. It was a beautiful day, typical of the beginning of summer in Southern California. Mitch looked handsome and healthy with his reddish hair and intense green eyes, surfing tan, his muscles well toned and supple. He looked ready to begin another stage of his life.

Still, I felt some concern. Having broken up on amicable terms with his girl friend Katie a couple of months before, he was now living alone with his dog Colby. Perhaps, he needed to live in a more social environment with roommates, friends or family. On the other hand, I thought, this temporary situation couldn't hurt Mitch much.

With us, to attend his graduation, were our eldest son Freddy, other relatives and friends. When we arrived at UCSB, there in the front row was Freddy's godfather, Enrique Gomez Vadillo. He had arrived from Los Angeles early in the morning. Even though he was not technically Mitch's godfather, he felt he was, because Mitch always called him Padrino (Godfather).

Everything seemed to presage a brilliant future. There was the possibility of a computer-drafting job. Mitch had also enrolled in a program to go to Spain at the end of August to pursue a Master's degree. At dinner, we toasted and celebrated the end of this phase of his life. We kissed and said our good-byes late that night.

The next morning, Mitch was going surfing with Freddy and some friends, so my wife decided to go to The Santa Barbara Botanical Gardens, which featured California natives. We had been doing some landscaping around our house in Carmel, and we definitely had an interest in drought-resistant plants, especially if they were California natives. After seeing the gardens, we went to the adjacent nursery to buy a few plants. While we were there, we got a phone call from our office asking me to contact my sister Pelusa in Mexico City. It was urgent.

I was the oldest sibling in our family, with four younger sisters; Pelusa was the second oldest. I dialed wondering what the emergency could be, hoping that urgent was along the lines, "I wanted to tell you, I was thinking of you."

Pelusa answered on the first ring. She immediately recognized my voice. Our sister Minnie, she explained, had gone into a hospital in Mexico City

the previous Thursday to have cosmetic surgery, a tummy tuck and some minor plastic surgery of the face. Then, “Yesterday morning when Pepe (Minnie’s husband) came to pick her up to take her home, there were some complications. Pepe called us, and when we arrived about fifteen minutes later, there were some doctors working on her. They decided to take her to the Intensive Care Unit. She had a blood clot.” The rest of the conversation is fuzzy in my memory, but I remember hearing the words “kidney failure,” “liver failure” “brain hemorrhage.” Pelusa’s voice started to break, “We need you here.”

“I’m on my way,” I responded and hung up. I quickly recounted the conversation to my wife, then we left. Unable to contact Freddy and Mitch, we left a message. We drove to Carmel, I packed a small suitcase, and my wife took me to the Monterey Airport. I flew to Mexico City via Los Angeles. During the flight I tried to concentrate on my role in all this. I focused on the moral and ethical decisions that we would probably have to face very soon. “That is probably what they need me for, to show the way,” I thought. I was definitely not going to Mexico City to find a medical solution; that was already too late. I was sure that my brother-in-laws would have seen that she had the best medical attention possible and that other medical experts would have been brought in to weigh the possible alternatives.

The words “brain hemorrhage” kept creeping into my thoughts; then questions: “At what point do you pull the plug? If my sister is brain dead, what should be the course of action? What would she have wanted? Who should be consulted and considered in the decision process? Are there other considerations to keep in mind? Whose sensitivities might be hurt by these awful decisions?”

I arrived in the early dawn of Tuesday. It was still dark. To make matters slightly worse, my suitcase had been lost. On the good side, well, I didn’t need my luggage at the hospital that morning. I hailed a cab and proceeded to the hospital.

In the Intensive Care Unit, looking down at Minnie, I had the eerie feeling that she wasn’t there anymore. She was breathing and her heart was beating, but you could see that she was hooked up to all kinds of equipment that were doing this for her. I felt she was already gone.

I went for a walk to calm down. The decisions we needed to take slowly fell into place. I walked back to the hospital and I saw Pelusa sitting on the sidewalk with a styro-foam cup with steaming coffee. She normally sleeps about five hours a night. I guessed with all this, she was sleeping less. I always envied her for that. It was 6:45 a.m. It would be a long day.

I pretended to be arriving from the airport so she could pour out her feelings. I tried to be strong for both of us. It was easy to tell how much the strain of this ordeal was wearing her down. I let her know that I was there to relieve her.

“Our father arrived last night about eleven. He has already seen Minnie.” As an explanation she added, “I got in touch with him on Sunday.” Our father lives in Acapulco but he has a house in Idaho, and spends the summer months there. Ironically, Sunday was Father’s Day.

After mentioning minor family details, Pelusa said, “They will do another electro-encephalogram at 1:00 o’clock to confirm there is no brain activity.”

“By another, do you mean they did one yesterday?”

“Yes,” she added holding back her tears. “There was no brain activity. Today’s test is to confirm that she is brain dead.”

I kept silent; I didn’t want to tell her about my eerie feeling that our sister had left us already. We walked into the hospital and went to the cafeteria. Slowly, as the morning progressed, friends, relatives, cousins started showing up. Some joined us in the cafeteria; some went to the waiting room outside the ICU.

When my father arrived, the two of us went into the ICU to see Minnie. He held her left hand; I, her right hand. My feelings of impotence were overpowering. I looked at all the monitors, their readings unchanged in the last few hours. We went out.

In the hallway I met my sister Susana and my mother. My mother, then seventy-two years, has been suffering from multiple sclerosis since she was 39. She walked slowly with the help of her aluminum walker. I am still amazed at her strength in the face of adversity. We hugged, and she asked me to accompany them into the ICU. My mother looked at her daughter. After a long interval she sobbed and let her tears come. I held her.

Shortly after my father gathered Pelusa, Susana, and me to talk in the waiting room.

“I think that Minnie would not want to live as a vegetable,” he said without preamble. “I am of the opinion that she be disconnected from life support systems as soon as the 1:00 o’clock test confirms that she is brain dead. I feel we owe her that. I don’t think she would want to live like a vegetable. Does anybody have a different opinion?”

He looked each one of us in the eye. Although it seemed to me that we all had slowly and painfully come to this conclusion, we agreed less reluctantly than I expected. “I also think,” my father continued, “that Pepe is entitled

to make this decision. After all, it is his wife. I would like us to stand united behind him, whatever he decides. Even if his decision is different than ours, we should support him 100 per cent unanimously." We looked around at each other, and silently agreed.

"Let me talk to Pepe about this," I volunteered. They all seemed relieved that I had offered to do this unpleasant task. "Don't worry," I said more to myself, than to them.

I then prepared myself for what was probably going to be hardest—my encounter with Pepe, Minnie's husband and my good friend for the last 38 years. He and my sister had just celebrated their twenty-third anniversary. They have a son Pepito and a daughter Francesca, twenty-two and twenty years old, respectively. They had just started building a new house, they were planning long trips; they were going to start to enjoy all the good things in life.

About half an hour later I heard Pepe's voice in the hallway. Good mornings were being exchanged along with whispers of sympathy and encouragement. I stood in the waiting room. Slowly he worked past the friends and relatives in the hallway. As soon as he saw me his eyes filled with tears. "Come," he said to me, as he grabbed me by the arm and quickly led me to the stairway that led to the garden. We embraced and cried. A few moments later, when we were calmer, I said, "In a few hours, we will know the results of some tests. I want you to know that my mother and father and my sisters as well as I stand by you on whatever decisions you make. We are behind you all the way."

He nodded and took a deep breath. "Last night I talked with my children. I calmly explained to them that they had to be a part of whatever decision we made; that they and I needed to be together more than ever in the face of this tragedy; that I couldn't make this decision alone, because I could not later or ever be held responsible by them for making any decisions regarding their mother, whatever they might be. We discussed it carefully and they agreed with me that if their mother is brain dead, we should stop assisted living of all kinds, and let nature take its course."

I nodded, with tears in my eyes. "I also want you to know that there is no rush in making any decision; if you feel that you need to wait one or two more days to make up your mind, we understand. If you feel that someone needs more time or that we are being insensitive to his or her needs, we can wait. We support you one hundred per cent. Keep that in mind."

"I appreciate that." He looked into my eyes with infinite sadness. "Let's go join the others." He took a deep breath and went back to the waiting room. I had quit smoking a month before, and as part of my forming-new-habits

routines I carried a pipe that I could use as a pacifier in case of a nicotine craving. I put the pipe in my mouth.

Friends and relatives kept showing up at the hospital during that day. A little after one o'clock the doctors met with Pepe and my sisters. The test results were the same: Minnie was brain dead. Pepe informed the doctors that he didn't want his beloved wife struggling and suffering any more. "We'll disconnect her from life support at six o'clock this afternoon and let fate take its course."

In the course of the afternoon friends and nephews and nieces and relatives were allowed to go in to see her. My father and mother went in separately and said their respective farewells in private. When my mother came out of the ICU, my father embraced her, said, "One of our jewels is going."

At five to six, my sister Susana pulled my arm, "It's time, come with us," nodding towards my sister Pelusa standing next to her.

I put my right arm around Pelusa's shoulder, and my left arm rested on Susana's back as we went through the entrance of the ICU. Instinctively, I waited for a moment, then moved my left arm back and turned to look for my other sister. For the last forty years it had always been three sisters by my side. For the first time, I became very conscious of how huge the hole in my soul was going to be.

With effort I withdrew my left arm from the empty air behind me and put it on Susana's shoulder. We continued walking towards Minnie's bed. Pepe was next to Minnie, his son Pepo standing close to him. Francesca, looking so much like her mother, stood on the other side of the bed. The three of us joined them.

As soon as the nurses started disconnecting all the equipment, I could see her vital signs slowing down. Although for me she had already departed, her body continued on. I embraced Pepo, and then went to embrace Francesca. Minnie's heart beat slower and slower. Eight minutes later she died. Pepe embraced Minnie, then left quickly. I looked around me and reminded myself that I was here to help others get through this. I saw Francesca standing serenely between my two sisters, all three tenderly looking at Minnie. I looked at Pepo. He stood motionless; his face masking all feelings, I couldn't read anything. I said to no one in particular, "I'm going out to tell them that Minnie is gone. I'll also check on Pepe."

After crossing through a sea of relatives and friends all extending condolences, I was able to find Pepe. He was sitting in a chair in the third story garden. I pulled a chair next to his and sat down. Rogelio, Pelusa's husband, and also friend of ours for the last 38 years, came and sat next to us.

Although Pepe knew I had quit smoking a month before, he still asked, “You wouldn’t have a cigarette, would you?” I shook my head. “Maybe you could get me one,” he said more than asked.

Looking around, I saw a gentleman across the garden smoking. I got up, approached the man, and I said, “My brother-in-law just lost his wife and he felt like having a cigarette. Do you mind if I bum one from you?”

The gentleman pulled his pack of cigarettes out and said, “Are you sure you just want one?”

I nodded and thanked him and returned to sit next to Pepe and Rogelio. I gave Pepe the cigarette and he pulled out his lighter. As Pepe inhaled he said, “Thanks.” I pulled out my never-lit pipe, which was part of my quit-smoking exercises, and put it into my mouth.

Rogelio turned to me and asked, “You’re going to smoke too?”

“Does it bother you?”

“What I mean is you don’t need to smoke right now. It is better if you don’t. You just quit, remember?”

“Yeah, you’re right. I don’t need my pipe,” I put the pipe back in my pocket. “But if Pepe wants to smoke, it’s all right.”

“That’s different, Pepe hasn’t quit smoking.”

The three of us sat in silence. Pepe smoked his cigarette. I thought about each of our losses. I wondered if they knew how big mine was.

Two days later Freddy and Mitch picked me up at the Monterey Airport on my return from Mexico City. My sister’s death seemed so enormous. I felt a strong need to be with my sons and wife, with the people I most loved. Freddy was living at home, looking for an engineering job. Mitch was still living in Santa Barbara and had plans to enroll in a graduate program in Spain next fall. He spent the following days with us. A week later we all flew back to Mexico City to attend a memorial service in honor of Minnie.

At my sister’s memorial I saw all my cousins, among them Carlos, son of my grandfather’s sister. Carlos was, as usual, with his wife, Lupe. His father had passed away the previous summer. Carlos had mentioned that he wanted to go to Spain to visit the place where his grandfather had been born. He had found a pile of correspondence between his grandfather, who came to Mexico as a young man, and his great-grandfather who had remained in Spain. I had told him that I would be glad to go with him whenever he decided to go to Spain.

With the unexpected loss of my sister, the world and my priorities had changed. I now realized that I could die any day. There is no guarantee against it. So I’d better get doing the things that I wanted to accomplish.

So I asked Carlos, "What about your trip to Spain? When are we going?"

Without missing a beat he answered, "When is it good for you? The reality is that I haven't planned any of it, but sure, it sounds great to me. How does September work for you?" Mitch was planning to go to Spain in September, so, without much more thought, we decided we were going to Spain.

On our return from Mexico, in the first days of July, Mitch started work in Santa Barbara doing computerized engineering graphics. He had applied for the job not really believing that he could get it. When he did, he cancelled the Spanish Program. He was very excited; he had his own computer and even a secretary.

Four weeks later, he called me to tell me the work was making him crazy. Concentrated analytical thought, he explained, triggered anxiety that could escalate to a panic attack. "Dad, I am living all alone with my dog, my friends are not around. All I do is struggle to go to work, struggle to get through the work day, and then struggle to get to sleep; and from lack of sleep, I'm worse the next day. I am just continuing in a downward spiral. Every day I feel it is getting progressively worse."

I explained there was no reason for him to continue in a path that was proving to be so disastrous for him. He had to keep in mind that he was fortunate to have loving parents. I told him it would be all right to come home, work in the family business and take some time to recover and get well. It would also help me recover from my grieving after Minnie's death.

So in early August, Mitch quit his job and came home to live with us. He would be working in our business. I was glad for this, as Freddy my other son had found an engineering job and would soon go live in San Francisco. Freddy had been helping out in the office learning the business; Mitch could take his place.

Mitch seemed a bit agitated when he arrived in Carmel, but seemed to calm down considerably as the days went by. He told us that the Paxil we had gotten in Mexico wasn't the same as he normally took. I assumed (incorrectly) that it might have to do with the proper dosage. We got him a new prescription, and he reported that the Paxil was now working properly.

Although we were worried about Mitch, we sensed a steady improvement. Mitch seemed almost O.K. He insisted he was all right; as usual, he didn't want to discuss it. We felt we shouldn't press him too much. As parents we automatically have a tendency to move in a path to make our children feel better. So we did as he asked, and tried to avoid talking about his situation. We tended to emphasize the good and not push in any direction which would cause Mitch discomfort. In hindsight, I should have probed gently, and tried

to get his trust, hoping he would open up, and then perhaps we could've been better informed of what was really going on deep inside. On the other hand, perhaps what we were seeing and sensing was a signal that not all was right. But, we thought, whatever it was, it would pass.

However, I did look after him. I observed him and I checked on his sleeping. If he had a hard time falling asleep, he certainly didn't report it. Early every morning I found him sound asleep in bed, his breathing even. I recalled how, when he came home one summer, I found him sitting late at night in the courtyard with a B-B gun next to the circular fountain. I asked him what he was doing and he replied, slightly irritated, that he was trying to kill the frogs that didn't let him sleep, their croaking was making too much noise. I pointed out to him that most of the frogs lived in the artificial waterfall on the hill above the courtyard. He could never hope to kill them all. But the frogs definitely made a racket at night. I inspected his bedroom and discovered two vents in the wall adjacent to the courtyard. I couldn't discern any need for air circulation, so I got some insulation material and stuffed it in the vents. The noise level was reduced considerably. The frogs were barely audible. In the rest of the house you would not know that there were any frogs out there. I occasionally checked the insulation; and to this day, at the time of writing, it was still in place.

After some discussion regarding Mitch's condition, Pat and I decided to go ahead with our trip to Europe as planned. On August 26, 2002, we flew to New York. There we stayed in our apartment near our store on the East side. When we called Mitch, he insisted that we should go ahead with our trip. "I'm fine, Dad. It's your turn to go. Have a good time." On August 30 we left New York bound for Madrid. Both our sons had been to Europe, but for us it was the first time.

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The death of my mother's mother, Mama Hatty, in 1959 at age fifty-eight was the first time I had lost someone dear to me. Seventeen years later, my father's father, Tito, died; he was seventy-five. A little over three years later I had to face a premature death. We lost Pat's brother. He was twenty-six. His loss was deeply felt. In 1999 my father's mother died at age eighty-eight.

Up to that point, I hadn't understood how remarkably lucky I had been. I hadn't thought about what an incredibly privileged life I had enjoyed. My mother's mother died when I was eight. My father's father died when I was twenty-five. Although we had been very close, it seemed normal that they

went when their time came. Tito was the oldest in our family at the time. When the natural order was being followed, death was easier to accept. It is different when a young person dies; there is anger, and a deep feeling of being cheated.

Our emotions evolved in a process of natural selection; these emotions, the good and bad, help us survive and pass on our genes. We try to avoid emotions that feel bad, and we promote situations that result in good feelings. We share some of our most basic emotions, like fear, anger and sexual attraction, with fish, amphibians, reptiles, birds and our fellow mammals. Others, like hate, embarrassment and guilt, are probably fairly typical of *Homo sapiens*, but perhaps are shared with our close brothers the gorillas and chimpanzees. Hate, embarrassment and guilt can be seen as emotions that help us fit better into a social landscape, which, since we are social animals, helps us survive and reproduce. Other emotions, like elation and inspiration, might be a little more difficult to put into this simplified scenario, but still similar points could be argued; chiefly, that these emotions help not only the individual but the group. Each individual, according to their experience, activates emotions as a response to environmental or social situations. The threshold at which each emotion is triggered, as well as its intensity also varies between individuals and depends on experience.

When the brain detects an emotion, it is experienced as a feeling. Each emotion is experienced differently, each producing diverse sensations, some of them, very clearly reflecting our changed state, manifested as particular physical feelings. Emotions are states of the body and the brain produced by slight chemical changes. Still, how do you explain grief? It is very different than depression; it is unlike being very sad. Grief is a cauldron of emotions, boiling under the surface, all clamoring to be attended to, and overwhelming us.

Grief is a long and arduous process, different for everyone, and involving almost all emotions. Grief is hard work and much effort expended daily to stay alive in a semblance of normality. Grief is a process in which you need to revisit all your emotions: denial, anger, frustration, fear, guilt, despair, selfishness, lowered self-esteem, love, hatred and sadness. Each person faces all these emotions, one by one, in different order, with different intensities, and with different timetables allocated to each of them. It is a process that can work in fits and starts; you deal with one emotion for a while, anger for example, then slip into a different mode and deal with another (frustration), then another (denial), then return to the first. If there is anger, one must work out the reasons, real and imagined for this anger, until the anger subsides. If there are feelings of fear or frustration, the same holds true. All emotions, one

at a time, have to be dealt with and methodically put into a new perspective. Nevertheless, each emotion has to be scrutinized, analyzed, and dissected until one comes to terms with it. Historically, the loss of someone close, generally kin, from an evolutionary point of view, is indicative of a real threat in the outside world. Emotions are triggered to guide us in finding a quick response to the changing environment. When we lose kin, it might indicate that our emotions were not triggered appropriately. Otherwise, we would have acted and prevented this loss. The grieving process is part of a recalibration process so our emotions might be activated at different thresholds in the future.

It is important to be surrounded by people that are also going through this process; the people that also loved the lost one. They can more readily and easily relate to you. They can share and aid reconstruct the real reasons for each feeling, and help come to terms with each one. With some emotions, it can be at times a rather straightforward process.

Other emotions are much more difficult to discern. Grieving is a process that can take minutes or years for each emotion. Grieving is this process you grind out through time, and emerge a different person; a person with his emotions readjusted to survive better in the face of whatever caused the terrible loss, perhaps just a small change in the environment. It is an adaptation mechanism that helps to deal with the ever-changing threats to us, and our loved ones. At the very minimum, it is a sign that reminds us of our own mortality. In short, grieving is a brutal process that shocks us into changing our emotional landscape to better fit the world we live in. This, of course, is under the reasonable assumption that the near future will be somewhat similar to the near past. And this, in our modern world, is definitely not always the case.

When the grieving process is over, only sadness remains. The sadness can never be completely resolved, as the loss can never be recovered. That is death. The sadness slowly recedes in time, but never quite disappears. This sadness, or should we say the fear of this sadness, is what will propel us to much greater efforts to protect our loved ones and ourselves in the future. This is why, for some people, some forms of loss are easier to get over than other losses. Some losses are inevitable and perhaps natural. Some losses can never be explained and this makes it more difficult to reach a new recalibration of our emotions. Some people never get over them and they stew in frustration, anger, hatred or guilt for very long periods, occasionally all their lives.

During the eighteen hours of driving and flying to the hospital to see my sister before she died, I thought that my role was basically a supportive role for my mother and my sisters. Perhaps a part of my role would be to relieve

Pelusa, my oldest sister, from the grueling vigil she had been sustaining. I had not prepared in any way to face the enormous grief that overcame me. Before I even started grieving my sister's death, even before she died, the first emotion I had to deal with was anger—anger at the incompetence of the doctor, at the nurses, the hospital, whoever was to blame for this tragedy, for this gross negligence in care taking. My sister had gone to the hospital for cosmetic surgery, unneeded surgery, and she simply wasn't going to go back home. I quickly had to go through the anger, and dismiss it: it was not going to help in any way; it was not going to change anything, and more important, wasn't going to give me my sister back. There was nothing to be gained by accusing or pursuing anyone, and slowly the anger subsided.

That afternoon, shortly after Minnie died, I ended up at my mother's apartment. My father was there too; he had come to shower and change his clothes. Suddenly, I found myself alone with my parents for the first time since they had separated when I was fifteen. As I heard them talking softly to each other about their loss, I came to see how enormous it was, and slowly through their eyes and comments, I began to realize how huge and permanent my own loss really was. I excused myself, as I was overwhelmed emotionally, and went to take a shower. I felt that they needed me to be strong and give them support. Under the shower I let my grief come to the surface. First, came the feelings of impotence—impotence to anticipate, impotence to protect my sister, impotence to save her, impotence to change anything, impotence to shield my parents from their grief. Over the next few days I would have to come to terms with this impotence. After all, there was nothing I could change.

At some point that evening, during the wake, the thought that at least Minnie could feel no pain, no grief, no impotence, nothing, began to give me some solace. Whether there was nothing or whether there was anything after life didn't matter; either way, surely my sister would be at peace. The pain was for the living, not the dead. We, the ones left alive, had to care for and succor each other. The pain was a confirmation we were here and she was not. Slowly the selfishness of my feelings showed up: the selfishness that I would never hear her laugh, that she would never call my children on the phone and playfully ask, "Who loves you, baby?" The selfishness of all the fun I would never have with her; of the conversations that would never take place. The selfishness I felt when I thought she would not cook me any more meals. In the next few days, as I accepted her loss, the selfishness receded in proportion to the acceptance, but there was this hole. It felt like a big hole in my stomach. It was as though I look at myself in the mirror and there was

this hole in me, which you could look right through. Slowly, I got used to the hole. It didn't go away or get smaller; I simply got used to having it; like a big scar it would always be there. Eventually, I was able to feel comfortable about the hole that would be with me forever. There are times in life, when we have to let go and live in the present; not the past, and also stop anticipating future lost happiness.

As we, my siblings and family, shared our feelings, reaching out to all our loved ones and those that loved her, we slowly emerged from the dark shadows. We emerged slightly changed by the experience; more aware of our mortality, more aware of our insensitivities to each other in the past. We all came out of this terrible experience with a deeper commitment to being and staying closer than before.

A few months later, my son Mitch died.

Pat and I were home in Carmel. I had a bad feeling for more than twenty-four hours before we received the terrible call. The previous day at three-twelve in the afternoon, Eastern Standard Time, I had the urge to call Mitch. Pat had talked to him about an hour earlier. He had gone to our apartment in New York. There was no answer. The answering machine picked up. I had an uneasy feeling, difficult to describe, a sort of anxiety, a sensation that something wasn't right but without knowing what. I left a repeated message, "Mitch, pick up. It's your father. Mitchell, if you're there, pick up!"

Mitch didn't answer the phone. He failed to pick up. Later that afternoon, when Donaldo got to the apartment, Mitch still hadn't shown up. I suspected something was very wrong. Mitch had mentioned to me that the cold water of the ocean always made him feel good when he went surfing. I was afraid that he might have walked to the East River, just a few blocks away, and then somehow, decided to go for a swim, hoping that the cold water would make him feel better. The police can't get involved in searching for a missing person until the person has disappeared for more than twenty-four hours. They explained, when Donaldo reported him missing, that if they searched for everyone that disappeared for a few hours, they would be overwhelmed and that would be all they could ever do. And so, after the official twenty-four hours, the next day at around seven Eastern Standard Time, the police called us. They informed us that they were at our apartment and wanted to ask us a few questions that might help in the search. As they were asking my wife routine questions, I was following the conversation by listening to her answers, and she suddenly hung up.

"What happened?" I asked.

"I don't know. They were talking to Donald. I heard someone ask, 'What is there?'"

"A closet."

"And that door there?"

"It's a stairwell that is never used. We employ it for storage."

"Then I heard a scream, and the officer said, 'I'll call you right back.' And he hung up."

"What kind of a scream?"

"Like a long piercing scream. I wonder why the police would scream?"

"The police don't scream."

I got up and stepped outside onto our terrace. At first, there was denial. I had to walk and breathe deeply and repeat to myself that this, my most terrible nightmare, might be real—that Mitch had been in the stairwell since yesterday. I thought about my call to him the previous afternoon when I got the answering machine. Not even a farewell was I allowed.

The previous morning, when I had talked to Mitch, my last words were, "I'll see you tomorrow." He was supposed to be arriving home this day. He hadn't shown up. He was supposed to start some therapy . . . My first thought was that I should trade places with him. I was supposed to die before him. There was still so much for him to do, to experience, to achieve, to give the world. If only there was some way that I could be in the stairwell, and he on my terrace. If there was a way to do that, I wouldn't have hesitated, but there wasn't. I was still here, and he would never show up.

Then, guilt immediately overcame my whole being. Just as quickly, I pushed it away. I had been as good a father as I could be, better than most fathers I knew. I remembered one of my nephew's words, "I wish my father got along with me the same way that you do with Mitch and Freddy." I felt rather than knew I couldn't have done anything different. I was vaguely aware that it was ignorance, my ignorance of the seriousness, and my ignorance of the nature of his condition. Because of my ignorance, it could not be my fault; I hadn't known any better. Yes, it was true that I failed to protect my son; he was dead. But the failure was due to lack of knowledge. I could only change my ignorance in the future. I could only seek to learn and understand how this had happened and help others protect their loved ones. Also, then, I realized that, as in the case of Minnie's death a few months before, I had a task. I had to see everyone through this. In a strange way, my grief after my sister's death prepared me for this ordeal. But, at that moment, I simply wasn't aware of how tough it was going to be.

I returned to the table where my wife sat. She seemed terribly calm and collected. The phone rang. It was the police. Indeed, they had found him in the stairwell of our apartment. They asked a couple of questions. I followed my wife's answers.

"He was a little depressed."

"He was taking antidepressants and perhaps a sleeping pill."

"No, none that I know of."

"Thank you, officer."

My wife hung up. She asked me to call someone in New York to take care of his body. I nodded.

Griselda, our housekeeper, walked in. "Mitch is still not answering his cell phone," she told us.

I uttered the words for the first time, "Mitchell is dead, you don't need to worry about calling him anymore," and started crying. I could not bring myself to repeat those words, "Mitchell is dead."

In quick succession all kinds of emotions spilled forth—impotence, guilt, fear, sadness, anger, longing, pain; an indescribable pain; a pain there are no words to explain, the pain of grief. I had to bring myself under some semblance of control. I had to help the others get through this.

I needed to call Katie, Mitch's girlfriend. We had contacted her repeatedly as we searched for Mitch that last day. I wanted to make sure that she was not blaming herself, then or ever, for thinking or feeling that she could have done something differently. I called her on her cell phone. She already knew. I made her repeat after me that she was not to blame; that there was nothing she could have done differently to change the outcome; that the outcome had nothing to do with her. It was a brain attack, like a heart attack.

I called Donaldo. He was in our apartment with the police and had discovered the body in the stairwell. Donaldo had been one of the last people to see Mitch alive. I made sure that he understood firmly that he was not to blame either.

Having done that, having taken care of the immediate needs of the living, I pondered my next move. My wife asked me if I was in condition to call New York to take care of Mitch, or did she need to do it? She was icy calm. I called a cousin, then a friend in New York, told them the sad news and enlisted their help. For the next two hours I could not bring myself to call anyone else, I simply could not do it. Neither could my wife. I felt internal waves rising to drown me, except that I couldn't swim, but had to endure as I realized that I could breathe. Breathing under water was difficult.

Finally, I thought I would call Susana, the more spiritual of my sisters, she might be better able to help. Her daughter Othiana answered—her parents had

gone to the movies. I could hear four-year-old Manek shouting to his older sister, "Who is calling?" After she told him who was calling, "Let me talk to Mitch, pass me Mitch," he squealed delightedly. I simply said I would call later and placed the phone in its cradle. A few minutes later, I called Pelusa, my other sister, and fortune would have it that my brother-in-law Rogelio answered. Why hadn't I thought of that? Better to talk to my brother-in-laws, then they could talk to my sisters. I began to recount what had happened, but before I could finish, my sister was on the phone wanting to know if I was certain. And so the word spread. My worst nightmare was real; one of my children was dead.

I talked to my father, then my mother. A cousin called us.

I called Freddy and told him to come home. He was living in San Francisco. I told him I had bad news and that I preferred to deliver it in person; for him to come home. That was the worst.

A few friends started showing up at our door. A friend of Mitch's called, "I just heard. I don't know what to say."

"Say whatever you want, don't worry," I responded gently. I tried as hard as possible to help others.

Mitch's girl friend's dad, Tracy, appeared at our door. "Come in." I said, "I just finished talking to Katie. I told her, I made her repeat to me, that she cannot blame herself for anything. That no matter what she thought, she can never go to that place. She can never blame herself. There is nothing she could have done differently."

"Thank you," Tracy answered. We sat in silence at the breakfast room table.

I saw my old Beatles' music book open on the piano. Mitch had written a few notes on scraps of paper, probably working on new lyrics. I apparently wrote some fragments down. I recently found a piece of paper with my handwriting and I know it was written that night. It says:

7:45 He saw he had many fears, he saw the future and it was all full of fears. He had the courage to face them all. He did what he had to do in their face. No man can be braver than that.

On the back it says:

8:20 The perfection of the soul is to understand and stand back and permit the soul to grow more and more. And come back and grow more and more. And come back, until the soul can stand back and let it be! The road is winding and always leads back to you!

My wife called her mother. Now, they both had lost a son named Mitchell.

My children's friends showed up, and I don't know how many times I had to help them pull themselves together. I felt as if they had fallen and I was picking them up, pushing their legs under them, and leaving them balanced precariously. I would say, "Mitch left us a great pain, but we are strong and healthy. We are many. Each one of us has to take a little of that pain and heal it. His pain is now our pain. It is our duty to make it go away."

The waves kept coming relentlessly trying to drown me. After two days I went from "I felt alright for one minute today," to feeling all right a few minutes a day. Eventually I was able to feel somewhat well for a few hours a day. It was a steep climb uphill, requiring daily effort. Fortunately, when I was falling deep into the abyss of grief, my wife was climbing uphill; and when she plunged, I pulled upwards. Surprisingly, we didn't crash together; we simply took turns. My experience of Minnie's recent death allowed me to know that I would eventually emerge and live again. However, I was not prepared to feel the brutality, the permanence and the intensity of my grief. If grief could be plotted in a logarithmic scale from one to ten, where every number indicates twice the intensity than the previous one—where three is twice two, and six is twice five—when my grandfather died my grief would have been a six. When my sister died my grief would have been an eight. When Mitch died my grief was a ten. If there is a higher grief, it would surely kill me.

I am still amazed that I could appear calm when my son Freddy arrived and I told him about his brother's death. I am not sure how late it was after my wife went to bed, but I went on a long walk with Freddy. We walked down to the bridge where Mitch did some of his bungy-chord jumping. I was determined to make it easier for Freddy, I had to appear to be calm. I tried to help him deal and understand his brother's death. I talked about my ignorance, and how I had tried to do more for him, but it obviously hadn't been enough. I couldn't or wouldn't want Freddy to worry about me on top of his loss. I knew, by experience, his was big enough.

The next morning when I woke up, my wife was still sleeping—I could tell by her breathing. I stayed motionless, watching her, hoping that she would sleep as long as possible. I knew she needed it. Suddenly her breathing changed, and a tear fell from her eye, then she opened her eyes and a few more tears flowed. I kissed her tears and got up and went to shower. In the shower, I tried desperately, in vain, to wash my pain away. I desperately scrubbed and scrubbed. But it wasn't on the outside, the pain came from the deepest part of me, and scrubbing couldn't get to it. So I just stayed in the shower and let the tears mix with the warm water. Eventually I emerged, got dressed and

made myself presentable. I needed to be ready, people would be showing up soon, as I heard my wife talking softly on the phone to many.

The next few days after Mitch's death witnessed the gathering of the clans. They gave us strength. They erected fences to protect us. Some of Pat's family arrived first, as they lived closer. Some of my family arrived shortly afterwards. Friends streamed into our home. For the next few nights more than a hundred people would gather nightly to have dinner with us. The hardest would come later when we would be forced to face our griefs alone.

The selfishness of not having Mitch's love and admiration is one of the last feelings I battled with. To not hear his laugh, to not see his smile, to not reflect in the gleam of his eyes, to not hear his music, to not feel his supple power and his presence; to know that he no longer walks on this planet. The hole in my stomach looks huge. It feels like you can easily pass a melon through it. It is always there—this hole. I am slowly getting used to it. It doesn't bother me so much to look in the mirror. It is now, this hole in me, a part of me. I am amazed at the vile intransience of this change in my life.

I received a few of his personal belongings: his passport, his wallet, with the name and phone number of a couple of people to call in case of emergency; a few pictures he had taken to New York with him; his watch, a Cartier we gave him for his graduation a few months before. His Cartier enigmatically was set seven hours behind Eastern Standard Time. I didn't understand the significance of this, if any. I put the watch on and I left it unchanged, indicating four hours behind California time, I presumed somewhere east of Hawaii in the Pacific.

Mitch left a small book on his bed in the apartment in New York next to his watch. The book is the *Companion Book to the Four Agreements* by Don Miguel Ruiz. He left it marked on chapter six. I don't know if the marker indicates that he was reading the book and was starting chapter six; or whether he had just read it and was studying its implications; or perhaps, more importantly, whether he purposely marked it right before he died as some kind of message, as he might have done with the setting on his watch. I simply can't know. But whatever the case, the concepts in that chapter were helpful, both to the grieving process and to understanding suicide.

Ruiz maintains, that as life moves through an ever-changing universe, in our minds we resist change. We try to stop things from changing and become attached to our past. Life is what is happening; death is what is not happening. Whatever happened before is no longer happening now. We carry the memories of our life knowing that they are dead moments, yet they affect our lives. Memories are of events that happened, but these are not happening

anymore. We keep death alive because we attach to what is dead, but death doesn't really exist. Only Life, only Creation exists.

In Toltec mythology, Ruiz explains, the Angel of Death teaches us to live in the present moment, the only thing we have. The Angel of Death is always next to us; it takes everything away little by little. But for everything the Angel takes, Life gives us something new. If we become attached to what the Angel takes away, then we cannot receive the gifts of Life. We need to learn to detach. Detachment doesn't mean that we stop loving someone; it only means that we accept that there is nothing we can do to stop the transformation of Life. Attach-detach.

When we are children, we always live in the present moment; we don't worry about the future, and we don't care about the past. Attach-detach. Children accept the transformation of Life, as animals do. Domestication teaches us to live in the past and to use this knowledge to project into the future. By mastering attachment-detachment, we learn to keep our attention on the present. Attachment helps us to live our life intensely in the present moment. Detachment helps us not to be attached to the past. We can detach from the agreements and beliefs that limit the expression of our creativity and our love. This frees our energy to create a new dream. And what we create is a masterpiece of art: our own life.

For anyone that is grieving and feels the depths of despair, I can advise you that with the help of loved ones, with honesty and will, slowly you will become whole again. The hole is always with you, but eventually you do emerge and join the living, enabling you to enjoy, sometimes, life fully again. Attach-detach is helpful. One needs to live in the present. One needs to detach from the past. After every sunset there is a sunrise.

One of the most noticeable changes that I could detect in myself as I emerged from my grieving was a shift in the emotional content of music. Where before Mitch's death, romantic songs of the type "I can't live without you," or "life has no meaning when I am not with you," or "you are my light," instead of evoking a romantic image of a loved woman, or my wife, evoke a terrible sadness and longing for my son. Another change is that anything relating to saving something, the birds or the environment, or even a cartoon character, produces a strong emotional reaction in me, whereas before it produced only an intellectual reaction. Grieving changed not only the threshold of some emotional triggers, but also the type of emotion triggered by some events.

Four months after Mitch's death I met Osbaldo. He is an interesting example of the changes that grieving can produce. He was a pleasant, engaging,

thirty-three-year-old man. He knew about Mitch, and he said to me, “When I was eighteen, I was very depressed and suicidal. I couldn’t perform in school; my grades were terrible. I couldn’t get anything done. I was on a suicidal watch on and off, depending on the various threats I openly expressed. Everyone was worried about me, even my younger brother Alejandro. He was the star of the family; I was the black sheep. He was doing great in school and had a girl friend. He was the happy-go-lucky guy. I was seeing a therapist, but I felt it wasn’t helping. I felt that if I died it didn’t matter. Then one afternoon, my brother and I were the only ones home, and I heard a blast in our bedroom. I ran in, and found my brother dead. He used my shotgun, put it in his mouth, and blew his brains out. Fortunately, my mother wasn’t home and didn’t have to see him. Nobody had a clue. Alejandro was seventeen.”

“If you were suicidal, how come you had a shotgun?”

“I had it from before, and I had hidden it in my closet. Only my brother knew. I was so upset at my brother’s death. I grieved him terribly. But, interestingly, through my grief, as time went by, my depression lifted, and my suicidal thoughts disappeared. I have not been depressed or suicidal ever since. Whereas my mother was completely devastated. She couldn’t even leave the house for several years.”

Normally, grief, when not properly dealt with, can lead to depression. Yet, the grieving process is so strong, that in this case, it readjusted Osbaldo’s emotional makeup to such a degree that his depression lifted and with it his suicidal thoughts disappeared.

Many marriages that have lost a child to suicide do not survive. It is commonly explained that the loss was too great. In my experience, it is not the huge loss, but rather, when both spouses, each in their own way, go through the grief process, they revisit many emotions and perform a deep introspection. It is part of the natural process to question profoundly many past experiences and beliefs; without grieving, perhaps this introspection would never have been done. In many cases, this questioning reveals previous frictions and dissatisfactions that ultimately can lead to a divorce.

First Symptoms and Diagnosis

Even though I want people to remember him by how he lived and not how he died, I need to speak of my son Mitch's mental illness. This sickness killed him. Ignorance also. I am convinced that it didn't have to be this way. Knowledge might have made the difference between life and death.

In August of 1997, my son Mitch and I flew from California to New York City to board the *Ocean Breeze*. We were to cruise to Halifax, Canada, then to the point in the Atlantic where the *Titanic* had sunk in April 1912. There, we would circle around for a few days, witness the recovery of a piece of the hull of the *Titanic*, then cruise back to New York City.

There was a three-hour-time-zone change from California to New York; then one more time zone change between New York and Halifax. As we cruised east for three days, each day turned into a twenty-three hour day as we moved through three time zones. When we headed back to New York, we would cruise west and enjoy four twenty five-hour days.

My son Mitch could not adjust his circadian rhythms to the local time during these thirteen days of travel. He seemed to be stuck in California time. It was the first time I ever wondered whether there could be some problem with my son. He was a little irritable, but I attributed this to his age. After all, when you are seventeen, even a huge cruise liner can feel confining. I observed him closely, and maybe there was something other than his perpetual jet lag. He seemed almost O.K. Every night as we moved eastward, he went to bed one hour later and got up one hour later. When we circled around the site of the sunken *Titanic* and had three days in the same time zone, I hoped this would settle him down, but he continued going to sleep at a little before 6:00 a.m., keeping a timetable that seemed more in tune to the local California time and his regular schedule of going to bed around 11:00 p.m. A seven-hour difference!

As I write this, at this moment, I realized why, as one of his last acts, Mitch took off his watch and left it on the bed as a message to me. Although he set the watch seven hours behind New York time, he was, I believe, telling me that he was stuck in the place where the *Titanic* sunk, but feeling like he was

seven hours behind, like when we were in the middle Atlantic, that is, seven hours ahead of California time, but feeling like he was stuck in my time, Carmel time! Among the roiling emotions of his last few moments, one of them must have felt like something he first experienced when he was on the Titanic, and this triggered memories of his disrupted circadian rhythms on our trip where he was locked seven hours before local time. He felt broken, sunk in a deep abyss at the bottom of the black ocean. As a last heroic effort, he set his watch seven hours back and took it off; it was perhaps, the only way he could tell me of his disorientation in time and space and perhaps, more importantly his disorientation with regards to himself—his loss of self—the removal of the last obstacle to suicide.

When I received his personal belongings, I wore his watch for several days without changing the time to see if I could figure out why the watch was seven hours behind New York time. It had eluded me completely. My wife, of course had a practical explanation; the watch had simply stopped for seven hours exactly and then started. Eventually, I gave up trying to figure out a reason for the mysterious setting of the watch, I adjusted it to local time and moved it forward four hours. I still wear it today.

Mitch's circadian rhythms, noticeably out of whack when we arrived in Halifax, only got worse as we approached the site where the Titanic lies in the middle of the Atlantic. Many of the victims that died in the tragedy of the Titanic and whose bodies were recovered are buried in the cemetery in Halifax. I took a day tour to visit Halifax, but Mitch was too tired to get out of bed early in the morning; he pleaded that he had gone to bed too late and needed to catch up on his sleep. So I left him sleeping and caught up with him on the *Ocean Breeze* later in the afternoon.

The first rescuers that had sailed from Halifax to recover whatever they could encountered a baby floating. This was the first victim they pulled from the Atlantic. When they returned to port, all the members of that ship contributed to the tomb of this unknown baby. Buried next to him were a mother and three children, who had been tied to her when they were found floating in the icy waters. Years later, careful investigations would conclude that the unknown baby was this woman's fourth child. What a great coincidence that they were put to rest side by side.

Now I wonder, sometimes, could there be any connection between Mitch and myself and some of the victims of the *Titanic*? Could physical proximity to the place of a traumatic event, even though separated through time, have been the cause of the disruption of his circadian rhythms? Would my sister Susana see in our taking this trip, previous lives—that we, drawn together in

the past, had died in 1912 when the *Titanic* sunk? As an intellectual exercise, I find it comforting to think that Mitch and I might have lived or will live together in another lifetime.

For the most part, I perceived the trip to be a great experience for us, one filled with fun, intimacy and growing up. In hindsight, my observations about Mitch should have started me on a mission.

One of the difficulties that Mitch faced on this trip was a structured environment not normally enforced at home. Living in close quarters in a small cabin required both of us to be more orderly and organized. I felt it would be a good opportunity to impose more order on him, which at home, because of his mother's nature, was almost impossible. I also felt that it could be a good time to subtly teach Mitch that clothes clearly send out a message, and that sometimes trying to be different sends the wrong message.

Mitch loved skateboarding and the image that went with it—the skateboarder with the baggy pants with underwear showing, the baseball cap worn backwards. Above all, he loved the act of skateboarding. He practiced for hours perfecting his spins and moves on a trampoline and then performing them on the hard surfaces of parking lots. Unfortunately, on board *The Ocean Breeze*, skateboarding was not permitted.

After discussing with him different options for entertainment, he delighted at the prospect of the nightly Casino. He loved to bet, especially at blackjack, and he was quite adept at figuring out the odds. The night *The Ocean Breeze* left New York, headed for Halifax, I ran into him in one of the hallways. Mitch looked dejected.

“What’s wrong?”

“I got kicked out of the Casino,” he replied in a tone of absolute despair.

“I hate to tell you, Mitch but dressed like that,” referring to his skateboarder outfit, “they won’t allow you anywhere.” He seemed very crestfallen.

“If I can’t play blackjack, this trip is going to be terrible,” Mitch cried.

“Don’t be such a cry baby. There are many other things to do.”

“Like what?”

“Well, like going to the conferences, talking to people, looking out at the ocean . . .” I replied not very convincingly. “Once we leave Halifax, and we head into international waters, they probably won’t care how old you are in the Casino. So, wait one more day and tomorrow you will probably have no problem. Cheer up,” I said, trying my best to raise his spirits.

“Are you sure of this?”

“I’m pretty sure. At any rate, I’ll find a way. So relax, Mitch. Take it easy for a day.” He smiled.

"I guess I can wait a couple of nights," Mitch added a little more cheerfully.

The next night, after we departed from Halifax, I saw an officer sitting at the bar; I approached him. After introductions and some small talk, I cut to the chase, "My son is almost eighteen, but not quite, still a couple of months to go. He went gambling the first night and was quickly spotted and kicked out of the Casino. He's dressed like a skate boarder, pretty distinctive, baggy pants, you know. He is very disappointed that he can't gamble. I think he was hoping that this could be his salvation on this trip with his old man. I remember as a young kid, when I was eleven, my father took me on a cruise, and once we were in international waters, the casino didn't pay attention to age limits. Is it safe to assume that tonight as we head away from the mainland that might be the case?"

"I hate to burst your bubble, but since we left New York and are returning to New York, it is more likely than not that we have an inspector aboard. They will fine us heavily if we allow minors in the Casino. If we were headed towards Europe, then it would be different; it would be like you say. I regret to tell you, but it is not a good idea to let your son try to gamble. He will be kicked out of the Casino immediately. We are enforcing these rules to the maximum."

"I thank you for your time," I said, got up and left thinking how I could salvage the situation.

I ran into Mitch a short time afterwards. I quickly explained to him what the officer had told me. He was clearly heart broken and dejected. I needed to do something quick.

"However, I have an idea, Mitch. I'll make a deal with you. We both have a tuxedo that we rented for the two special evenings; so what we do is dress up to the tea. We go to the Casino looking like two rich, elegant gamblers, we play for one hour, and one hour only, and winning or losing we leave the Casino. I'm pretty sure they won't object to us gambling if we look the part," I added, not too sure that this was going to work. Mitch however brightened up immediately. We proceeded to our cabin, changed into our tuxedos and headed for the blackjack tables. Mitch proceeded to win a little more than I lost. He was obviously having a great time winning as I was losing. "Remember that we are partners, Mitch." I admonished him, as I was the one financing the betting, trying to make sure that I would recoup some of my money.

"Don't worry, dad. If you pay more attention, I'll give you some pointers so that you don't lose so much. At any rate, we will be ahead," he said with youthful bravado.

When the hour was up, I turned to him as I gathered our chips, "It's time to go, Mitch. We'll do it again tomorrow." He nodded happily, jumped up from his seat and said, "I'll go change my clothes. Thanks, dad." I watched him as he walked out of the Casino. I smiled inwardly as I could feel a definite sense of enjoyment in my son. A short while later, I saw the officer I had been talking to the night before. He was walking towards me smiling.

"How did your son take the bad news?" he said as he extended his hand in greeting.

I shook his hand and as I looked into his eyes I couldn't lie; I proceeded to tell him about how I dressed him up and what we had just done. He listened attentively; he patted me on the shoulder and then added, "Well done, well done. Keep it that way." He turned and left.

The man next to me turned and asked, "How do you know the Captain? Maybe you could introduce him to me." After a very brief moment of confusion, as I realized that the officer was none other than the captain of the ship, I regained my composure.

"It would be my pleasure," I responded. "Captain," I yelled after him as he walked away. "Captain," I repeated as he turned, "some of my friends would like to meet you."

"It would be an honor," the Captain said as he turned back and approached my expectant new friends.

~

A few months later, late one night in November of 1997, Mitch's senior year in high school, Mitch came running into our bedroom. He was hyperventilating. When we asked what was wrong, he could only say, "I don't know; it is just an awful feeling that doesn't go away." His eyes were darting quickly from side to side, his body twitched, with occasional small spasms, he moved his head from side to side, as if he were looking for a way to rid it of what was happening inside it. He exhaled noisily. We couldn't get him to relax and had no idea what to do. He looked desperate. Nothing seemed to improve his condition. After we rubbed his back and talked to him for a couple of hours, he finally fell asleep, exhausted.

The next day, as we discussed the night's events with him, he told us that he felt that all this was caused by stress because of the college level courses he was taking. He was taking AP Calculus, AP Physics and AP Spanish, as he was hoping to become an engineer and perhaps go to MIT. Coincidental with his first episode (we didn't know it was a panic attack), he had been

doing a lot of math and physics, and in some way, he later related them to his panic attacks. He later intuited that the mental effort to do analytical work was in some way connected to this awful, inexplicable experience. We talked to the Dean at his school. He completely agreed that the workload was phenomenal, and after checking his records, ascertained that Mitch didn't even need the Math and Physics to graduate; he had already completed all those requirements. So Mitch dropped the college level Math and Physics to relieve the burden he was under.

However, even after we greatly diminished his course load, Mitch was not his usual self. It was hard to express what it was, to put a finger on it. What is it that makes a person be who he is? He looked slightly distressed, he seemed a little distracted, agitated, he couldn't sit still, and he also was reluctant to talk about the problem. Perhaps, I now have learned, he didn't know how to talk about the problem; I had the impression that talking about the *problem* could cause the *problem* to surface or get worse. Something was definitely not right, but it was hard to say what. He seemed almost O.K.

At this time, he started playing the piano quite a bit more than before. I felt this was because he had more time on his hands, literally. A couple of weeks later he broke up with his girl friend Meredith, because, he said, "She was driving me crazy." They had dated for more than a year, and to me, looking from the outside, this couldn't be the reason. She was a beautiful, charming, sweet girl. This seemed another manifestation that he was not improving. We decided it was time to get some professional help.

We took Mitch to see a psychiatrist. He didn't even seem interested in the episode, which had been the worst of it all. He just asked a few questions. Mitch answered that he was preoccupied with how the Universe works; he would wonder about the formation of the sun and the planets, the origin of the Universe, life, evolution, genes, the behavior of animals, ultimately, himself; he expressed that he couldn't stop looking for explanations. He added that when he played the piano, he felt good and was distracted from these preoccupations. The psychiatrist diagnosed him as suffering from Obsessive Compulsive Disorder. He prescribed Luvox (an inhibitor of serotonin uptake, used as an antidepressant and antiobsessional).

After reading about Obsessive Compulsive Disorder, I completely disagreed with the diagnosis. I could not relate this diagnosis with what I had witnessed (a panic attack). I didn't see any obsession, much less a compulsion. Looking for explanations when things are not right, from my common sense of view, was usual and could not be used as a diagnosis; and feeling good when playing music is perfectly normal, how could it be seen

as a compulsion? When I expressed my views to the psychiatrist, he argued that the obsession was thinking constantly about physical explanations of the Universe; the compulsion, to play the piano to feel better. Even though I disagreed with the doctor, at first we wanted to believe that in some way he might be right. After all, he was a respected, experienced psychiatrist; he must know what he is doing.

Pat, got Mitch his medication and he was so happy to think a pill was going to make him well. Unfortunately, after Mitch started taking the medication, I could see that it was stupefying him. He was having a hard time falling asleep and waking up to go to school. He was lethargic. His mother and I worried that he might not be able to finish high school. When my wife expressed our concerns to the doctor, he doubled the dose, telling us that the exact dosage varies from individual to individual, and that it sometimes is a matter of trial and error to find the proper dosage. Mitch's stupor worsened, and he subjectively confirmed this. I could clearly see he was going through an emotional hell. I believe this is a classic case where the doctor thinks he can cure a mental disorder with nothing more than medication, and it is just a question of finding the right dose of the correct medication by trial and error. Of course every visit and every trial that doesn't work has to be paid for, and the patient suffers through it all.

As I read more on the subject of mental disorders, one thing became clear—mental illness, in a great number of cases, results in suicide. And seeing my son's suffering at close hand worried me. I discussed suicide with Mitch. He emphatically denied that he had any suicidal thoughts or even slight tendencies related to anything to ending his own life. I made him promise that if he ever had any suicidal thoughts, even though they were just innocent thoughts with no intention of acting on them, that he would tell me, or call me immediately if he wasn't with me. He solemnly promised me this, probably to calm my worries, because he insisted this was not the case. After a month, Mitch was not improving in any noticeable way. He wanted to discontinue the Luvox, and after consulting with the doctor, he slowly went off the drug.

We took him to see another doctor. He diagnosed a mild depression, and suggested that we choose from three different medicines. Imagine that, I thought—the doctor wanted *us* to choose the medication so that he wouldn't be held responsible if whatever *we* chose didn't work. Again, I was seeing a trial and error procedure. At the time, I felt that this was such bullshit. As it turns out, this is pretty much the state of the art. We, however, decided to seek another opinion.

A friend of ours who had suffered Severe Depression suggested that we go see a doctor who had helped him get off medications. Mitch started feeling much better after he stopped taking Luvox and he drove to see this doctor alone. When Mitch got home, I asked him how it had gone; he told me that she was going to call me.

A few minutes later she did. With no preambles, she pronounced, "Your son is Schizophrenic and there is nothing to do." I felt like a knife went down my throat into my heart; I don't remember what else she was saying, except that it was related to, "You have to get used to this predicament. There is nothing to do for your son but I can help you."

I thanked her, politely declined her help, and hung up. I vaguely remembered that Schizophrenia had something to do with not being in touch with reality. As far as I was concerned, there was nothing to indicate that my son was not in contact with the real world, so I couldn't accept this diagnosis either.

Slowly Mitch seemed, over the next few weeks, to return to his normal self. I watched him closely as he finished his senior year in high school. He seemed fine. He also insisted that he was. At one point he felt bad again, but nothing like the beginning, and he insisted that his braces were the cause of his problems. So his mother took him to the orthodontist and had his braces removed.

He was fine for a few weeks; then he started feeling bad again. It wasn't anything like that first night. It was like an underlying discomfort under the surface, a feeling of unwellness manifested as fidgety behavior. This time he complained about his complexion. He told me that he didn't like to see himself in the mirror. He blamed it on his pimples, so we got him some creams. He reported improving quickly. Over all, again, he seemed O.K.

The psychiatrists had not been much help. Pat's father had been diagnosed as depressed at one point, but he also had a history of alcoholism that made the situation blurry. In his case, the doctors didn't help much either. We were ignorant of depression or panic attacks and what could be done, if anything, about these mental disorders. My sister, Minnie suffered from anxiety attacks, and what she had relayed to me, was that her psychologists had proved ineffectual in helping her. Yet, Mitch seemed to be improving. Eventually, he was his usual self. Whatever it had been, it seemed to be part of the past. We didn't get much help from the medical community and it fed us a sense of hopelessness, as far as what they could do.

Mitch hadn't been accepted at M.I.T. (his first choice when he had been so enthusiastic about engineering the previous summer) because he had

dropped his college level courses; but he had been accepted at the University of California at Santa Barbara as an engineer. I was proud of him. I had been worried that he couldn't even finish high school with all the tribulations he had faced, but Mitch had prevailed in spite of his emotional problems. I was worried about his going away to college. When I expressed my concerns, he continued to insist that he was fine.

The summer went by and we couldn't detect anything wrong with him. He went to Oregon and Costa Rica, and neither his friends nor parents of his friends had anything unusual to report. Perhaps, my wife and I thought, it has passed just as suddenly as it came. Perhaps, whatever it was, is gone. But after having witnessed his turmoil, we remained vigilant.

In September of 1998, Mitch started his freshman year at UCSB. I drove him to Santa Barbara and we stayed in close contact. When we asked, "How are you doing?" His response was an annoyed, "I am doing fine, Mom." And so it seemed. However, he informed us that he was changing his major from engineering to English. He no longer wanted to be an engineer; he wanted to be a writer. I knew he liked math and physics, but it was his choice. How could I know what he really liked most? My wife reminded me that not everyone in the world has to be an engineer. Because of what he had gone through, I probably didn't challenge him about his decision to abandon engineering. Paradoxically, if I had, I might have realized how much closer to the surface his panic attacks were.

On the other hand, he was different from me in many ways: he did like to write, and he composed and played music, things that in general I was either only going to do if forced, or was completely unable to do, respectively. I had a vague feeling that he had some residual fear about doing math or physics, because in his mind this could bring on an "episode". Yet, under more scrutiny than I ever gave Freddy when he went to Berkeley, Mitch seemed to be adjusting normally to his first quarter at the University. His grades were not outstanding, but with many freshmen, this is quite normal.

That fall a friend of Mitch's girl-friend committed suicide. Among his papers I found this writing relating to that suicide:

I walked over to the near-by hot springs and laid in one. Damn was it hot. It felt good on my eyes, though. Boy was it hard to stop thinking about that poor kid. His name was Robby. I knew his brother from school. I kept thinking about Robby's parents sticking a bunch of flowers on his grave. Poor Robby, just lying there in the dreadful cemetery, surrounded by dead people and tombs and all. Boy, did I

get depressed just sitting in that tepid water. I pictured going to the cemetery when my grandfather died. I went twice and both times it rained. It was awful. It rained on his lousy tombstone, and it rained on the grass on his stomach. It rained all over the place. All the visitors that were visiting the cemetery started running like hell over to their cars. That's what nearly drove me crazy. All the visitors could get in their cars and turn on their radios and heaters and go someplace dry for dinner—everyone except my grandfather and Robby. I know it's only their bodies in the cemetery and all, and that their souls were up in heaven but it still made me bitter as hell.

In February of 1999, we went to Lake Tahoe to ski with some friends from Mexico. We invited Mitch to join us. His girl friend Katie was there with her parents. While we were there, he started to feel like he had before, back in November of 1997. He talked to Mario, a dear friend of mine going back to my high school days. Mitch expressed many fears he had and Mario interpreted them as the natural fears of a young man. Mitch didn't possess the vocabulary necessary to communicate his internal state. This is why it is so important to become familiar with the vocabulary, terms, symptoms and definitions that psychiatrists use.

The next day, while we were in the parking lot getting ready to go up the slopes, Mitch started to hyperventilate, sobbing, crying, "I don't know what is happening to me." He was walking in a tight circle, raising and lowering his arms, breathing deeply, trying unsuccessfully to bring his emotions under control. It was scary. His eyes darted around, unfocused as he moved his head in a circle. I felt a terrible impotence and frustration—there was nothing I could do to help my son. I couldn't explain or advise him in any way about his predicament. There was nothing in my life that I could use to relate to him.

Mitch went for a walk with his mother and slowly the feeling passed, and a couple of hours later they joined us on the slopes. He seemed to be, almost, his usual self.

I had a few long conversations with him, and he seemed to be angry that this had happened to him again. I tried to calm him down and ease his frustration. At one point, he mentioned that perhaps, if he became more religious, he could find a way out of this. I said that if he believed that, then he should pursue it. If faith could help him, he should explore this. I explained that just because I was agnostic and didn't follow any organized religion, this didn't mean that he had to be like me. He should pursue what

he felt was best for him. A couple of days later, he returned to Santa Barbara amid, “Mom, I am fine, really. Don’t worry.” We kept in touch with him, at first daily, then weekly.

I didn’t understand at the time, like I do now, that this need to believe, or rely on faith was a symptom of a desperate search for a new set of laws to explain the world. His old world, in some way, had snapped; it had to be rebuilt, preferably, with a new set of rules. It is part of the symptom of the brain trying to adapt to its new condition. I didn’t understand what was happening to Mitch, and perhaps he knew this, and began searching for his own answers, in the process, moving imperceptively away from me.

Shortly after, I wrote him about his experience, hoping to maintain communication channels open as I discussed new ideas with him; this time, on the use of faith. Searching through Mitch’s papers I found the letter I had sent him on 2/25/99. It was in a Memo format:

From Your Dad, Re: The Biggie

Dearest Mitch:

Let’s start with the basics: our sensations, our feelings. Our senses give us information and symbolically represent the outside world, so we can get around it for basic needs. It allows us to survive, to grow, reproduce and die. Our feelings are pre-wired sensations that help us for the same goals: we pursue the ones that “feel” good; we try to avoid the ones that “feel” bad. In general bad feelings are for survival: i.e., under the right circumstances they help: anger, fear, revenge, hate. Under the wrong circumstances they can do us in. In this arsenal we have FAITH. Faith can help in dealing with the incomprehensible, with the unknown, and it has been conclusively proven that faith can heal. If you need faith and to talk to God to prevail, do it. Above all, you have to have faith that you are stronger than any handicap, any obstacle and any bad luck. I do. I know it. I have faith. You have to have faith too. You will prevail against all odds.

As a gambler you know you must increase your odds at every opportunity. God or faith can only help so much. You need to work hard to increase your odds. Patience will eventually reward you with the right hand to make your bets. You have friends and family to help. You have your intelligence, your common sense, and these are your assets. This will guarantee increasing the odds of winning consistently. The longer the time, the more assets are going to be brought to bear on increasing

the odds. The longer you fight, the longer your opponent, or obstacle will be weakened. You must, if you will, bring faith to the forefront. We are dealing with a problem that nobody knows the answer. Faith that an answer will be found is a must. It is only a question of time. Faith is a weapon. Have faith that "IT" will go away. I call "IT", because NO ONE has given it a name yet; it's an "IT". I repeat: I have FAITH that "IT" will go away. Now let's work at increasing the odds against the unknown, BECAUSE THE UNKNOWN WILL BECOME KNOWN, even if we need to invoke the name of God. Then the odds will become just a game. A game we play every day, if and/or when we feel like it. The odds will be overcome in good time, hopefully sooner than later. Just remember at all time, God and I will always be with you; plus your mother . . . and friends . . . and family . . . and most important, you! You must understand that this might be hard, or easy, but always have faith that it will be done! Once the faith is on, we must worry about understanding what the odds are and in so doing, increase the odds in your favor. To pray might help, and believe me, I am praying. We must have faith that you will prevail. I have faith that we will increase the odds, and I know you will prevail.

Paradoxically, me, a man of no religious faith, did have faith that answers could be found if enough effort was expended. I also had a lot of faith in Mitch. I certainly had faith he would overcome whatever he faced. What I didn't understand was how big Mitch's problem could become and eventually lead to his death. And now, I didn't know how much faith I ultimately needed to have to stay the course to find the answers that could've saved him, or at least explain what happened to him

The Brain Research Begins to Pay Off

Since I couldn't find any concrete answers, I put to one side the suicide books I had gotten and I began re-reading all the brain books that I owned. I would find my own answers. I read them with a new sense of urgency. With a new perspective, searching for clues as to how the brain works, or malfunctions. I sought for clues as to how you could be almost O.K. and then kill yourself. I asked my college roommate, Roman, now a professor of ecology with a Ph. D., "How do you keep track of everything you are reading, especially when you don't know specifically what you are looking for?" He told me, "Don't worry. It will come to you when you are ready." So I re-read my old books and a few new ones that I got my hands on.

Quickly I re-learned that all sensory signals pass through the thalamus on the way to the cortex. It also became clear that the most studied aspects of the brain were movement and vision, so I decided to begin there. Specific parts of the cortex have been determined to be involved in moving and seeing. Seeing involves a hierarchical process where more and more information is extracted from the visual signals coming from the eyes. There are areas that respond to borders, to lines, to movement, to colors and so on. All this is done in separate streams and can involve up to fourteen steps. It becomes obvious that a visual memory system is slowly built as you go up the steps in order to determine what is out there.

It also became evident, while looking at the motor system, that memories of sequences of muscle movements have to be stored in order to produce such seemingly simple movements as walking or running. This was one huge clue as to how the brain must work: the human cortex is an expanded memory bank. From an engineering point of view, the question now became how can you do so many things by just using memory? The cortex stores memories of movements and sequences of movements; and of categories of visions, such as faces, tools, objects, plants and so on. Likewise, the cortex would store memories of sounds, smells and tastes. Since the cortex is pretty much the same all over (there are some small variations), memories or perhaps something more abstract such as sequences or patterns must be stored all around the cortex.

It also became evident that the motor system had been co-opted for other uses: it tied into emotions. In social animals, this became extremely important, as the internal emotional state could be communicated to others through facial expressions and body postures. Not surprisingly, the muscle activation for emotional expressions runs through slightly different circuits than voluntary movement.

A little brain anatomy is needed to talk about some of the brain's processes. There are two hemispheres, a left and a right. In each one, the thalamus is a sort of relay station where all sensory signals pass through on their way to the cortex. The amygdala, also deep in the center of the brain, is an emotion-trigger center, primarily concerned with fear and anger. The cortex covers most of the inner structures in the brain and is what really distinguishes our brains from most all other mammals and other animals. This fact gave me another clue: the memory systems stored in the cortex are aiding the internal brain structures with whatever they are doing. Lizards, after all, almost do everything we do. We just have more memory, which translates into more flexibility, a lot more.

One interesting thing was that both the motor system and the visual system sent their cortical signals to a series of structures in the center of the brain collectively known as the basal ganglia. These circuits followed two paths, and unfortunately they became known as the direct and the indirect path. For most neurologists, it is still somewhat of a mystery what these structures are doing, but from an engineering point of view, they must be doing something essential: integrating the external visual/spatial map created by vision, with the internal body map created by the somatosensory system. In other words this is where the brain puts the body into the environment in order for us to navigate successfully, without stumbling or hitting our heads as we go along. It is not enough that we know where our body parts are in relation to each other, we also need to know where our body is in relation to what is out there.

Vision performs two important and very different tasks. The first one is to create a map of the external world, irrelevant of what is out there, that is the visual/spatial map. The second one, is to identify what is out there.

Joseph LeDoux after many detailed experiments was able to determine that when a sensory signal related to fear arrives at the thalamus, fear is automatically triggered by a signal from the thalamus to the amygdala, without further processing by the cortex. He was also able to determine that the further processing of the signal after being relayed by the thalamus to the cortex would dampen or strengthen the emotion. This fact, gave me the first

clue of how the memories work. The thalamus itself could not be some sort of memory bank to store memories of what should produce fear, but it triggers fear automatically. In lizards, fear must be an automatic process, since they have no cortex. To my engineer mind, if the memory is in the cortex, somehow it is being sent to the thalamus and then, when the thalamus matches this fear-memory to something that is happening, without further ado, it triggers the fear response and then relays the signal to the cortex. This is a quick and dirty system. It is better to be safe than sorry. Later, if it is determined to be a false danger, the fear is quickly dampened.

This in turn meant that there would be a continuous stream of, what I came to call, echoes moving from the cortex to the center. The cortex is full of memories, but they are not active, they are in a form of dormant state, they are like an echo or a phantom of the memory. They are signaling in their quiet mode, waiting to become active at the appropriate moment.

This would necessitate extensive connections from the cortex to the thalamus. When I studied brain anatomy further, I found the connections that my brain model required. I learned there is a beautiful structure called the corona radiata. As the name implies, it is similar to a radiating crown, sending nerve connections from the center outwards to the cortex, and more interestingly, with even more connections from the cortex to the center. It is quite clear that the sensory signals are relayed through these connections to the appropriate areas of the cortex. But, furthermore, I learned it was unknown what the cortex-to-the-center, the cortico-thalamic (as they are called) connections are for. I had discovered something new. I could explain what they were for. The echoes traveled to the center of the brain through these connections and helped organize the traffic of signals. When there was a match between the echoes and incoming signals, the incoming signal would be sent to the area that “recognized” it. There was a beautiful simplicity in this. What an ingenious system! We recognize by remembering. But some echoes were also related to emotions, because when the thalamus matched incoming signals with echoes that represented emotions, the specific emotion would be triggered automatically.

So everything up to this point was directing me to memories. Now I had a path to follow: memories and amnesic disorders.

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Among Mitch's papers, next to the memo I sent, I found another letter of mine dated March 1999:

Dear Mitch,

I suffered amnesia as a senior at the School of Engineering at Tufts University in 1975. In the spring of that year, Ben, one of my roommates, had joined the rugby team. He invited me to join, and so I did. I became the starting fullback. On a Sunday morning in April, we were having our first game. Actually two games. Team A would play first followed by a second game played by Team B.

Ben and I left our house in my car about 10 a.m. We were short a few players to be able to field the two teams, so Ben and I volunteered to play the two games. Rugby is a contact sport with no padding. Unlike football, you can only be touched, or hit when in possession of the ball. Close to the end of the second game, deep in our territory, I got the ball, proceeded to run forward as far as I could and then, before anybody could make contact with me kick the ball forward as far as possible into the opposing side. That was the plan. After kicking the ball, much as a 4th down punt in football, right leg extended upward, left leg off the ground, arms to the side, some guy dove into me head on while I was up in the air. He smashed his elbow into my cheekbone, causing me to do a reverse flip, and I hit the ground with the back of my head.

A brawl started and the game was suspended. I got up and Ben asked me if I was all right. I responded that indeed I was. However, Ben could tell that I was somewhat dazed, and insisted he drive us home. Home was only four blocks away. I felt there was no problem in driving myself, but Ben insisted. I gave him the keys, and got in the passenger side. There was an old note of a girl friend I had stopped dating five months before. The note said something like, "See you at 4, Love Kathy". "Am I supposed to meet Kathy?" I asked Ben. He raised an eyebrow. "No, that's an old note. You haven't seen her for months." "Hum. Well, let's go home," I responded. He looked at me, started the car and we drove home.

I went upstairs to take a shower and change my clothes. As I came out of the bathroom I ran into Tony, another roommate, in the hall. I asked him why my hair was all wet. "Because you just took a shower," he answered. I nodded and walked into my room to get dressed. While I was dressing Tony went down and talked to Ben about this incident. Ben went on to explain what had just happened. I came down and with my hair still wet; I asked them again why my hair was wet. They said that I had just played a game of rugby, and then took a shower. I responded that I had never played rugby. Logically I insisted that,

“How could I take a shower after something I had never done?” They explained that I had been hit in the head and that obviously there was something amiss. I made a joke, “What is the purpose of playing rugby if you can’t remember it?” I laughed. I thought that was funny. About a minute later I was asking them once again why my hair was wet. They proceeded to explain again what had happened. I proceeded to repeat my joke, as if this was the first time, “What is the purpose of playing rugby if you can’t remember?” And laughed again. When I proceeded to ask for a third time why my hair was wet, they knew something was terribly wrong.

Dinner preparations were interrupted and I was taken to the University’s Infirmary located in the middle of campus. There, the doctors asked me a few questions and mostly with the help of my roommates, were informed of the noon’s events. They also became aware that even though I knew the year (1975), when asked about my schedule I would answer them with courses that I had taken in my sophomore year. In short, I recalled events of two years ago and before, and events of the last 30 seconds, but not longer. I had a two-year loss of memory, and I was incapable of creating “new” memories. The doctors were worried that I might have a concussion. They put me in a room upstairs, instructed the nurse to feed me only liquids, no solids. I could become unconscious and vomit. I was informed, many times, that this is common with head injuries. The nurse on shift when I was admitted was informed of what happened. Some teammates and friends came to visit and check in on me.

All of a sudden I was alone. I asked the nurse where the bathroom was. She told me it was down the hallway, the last door on the left. I walked down the hallway, and by the time I got there I forgot if she had said left or right. I turned right, walked into a room where there was another patient. I started to ask him where the bathroom was, but before I could finish he started to tell me that it was the door across the hallway. From his expression and amusement, I realized that I must have done this before, but could not remember doing so. I asked him if I had done so previously, and he confirmed this. Even though I could not remember meeting him before, his face and voice were “known” to me. I apologized, again, and he laughed. I went to the bathroom and returned to my room. I got in bed, and next to the lamp I saw a note in Ben’s handwriting. The note said the following:

This morning you played Rugby.
 You got hit on the head.
 You did not pass out.
 You've only been here since this afternoon.
 Kathy has nothing to do with this.

I was becoming acutely aware of my memory impairments. I could not retain things for more than thirty seconds or so, and then they would disappear as if they had never happened. I don't know how many times I had done this before, but I realized that this note must be the answers to questions I kept repeating over and over and forgetting the answers a few moments later. I reasoned with myself: O.K. You played rugby. You got hit on the head. Then how come I am not sweaty? How come I have street clothes with me (they were on the chair)? No cleats, no sports uniform? I was incorrectly assuming that I would have been brought directly to the Infirmary from the playing field. O.K. I did not pass out, and I only have been here a few hours. "Why," I wondered, "Would I be asking if Kathy had anything to do with this?" Blank . . . Except that there was a strong emotional desire to see her. I sat there pondering this, over and over.

Always, when I play soccer (or rugby), I refrain from eating several hours before the game. Consequently, I hadn't eaten all day. The first game that morning started at eleven a.m., so I hadn't had any breakfast. And after I got home, but before I had dinner, I was brought to the Infirmary. I was famished. I called out to the nurse, this was a different shift, and she couldn't answer any of my questions relating to the note or otherwise, except that she could confirm that I had been there only a few hours. I told her I was hungry. I needed food—anything. She came back with a small serving of Jell-O. She explained, not too patiently (she probably had explained this several times before), that it was the doctor's orders. Liquids only.

Left alone, I got dressed, contemplating escaping to a nearby diner to get something to eat. It seemed security was kind of lax. I mentally reviewed how to get there and back. I could tip toe down the hallway, down the stairs, a quick dash across the quad, make a right, two blocks down, cross the street, eat and return quickly retracing my route. Sneak in, get undressed, jump in bed, and no one would even know! Aware of my memory problem, I contemplated the possibility that perhaps on the way there, I would forget where I was going, or what I was doing. After all I had forgotten where the bathroom was as I walked down the

hallway. This was around ten p.m. By now I could remember things that had happened a few minutes before, and with some effort I could recall very vaguely some things of the previous hour. I was also aware that I was a senior and that I could not remember any courses I took in my junior or senior year. Disturbing, to say the least.

If I couldn't recover my memory I would have to do the last two college years over. Feeling that this was the worst possible case scenario, I tried to see if I could remember other things in those two years. I could remember Kathy; I met her in my junior year. I could remember the faces and names of my rugby teammates that came to see me, even if I met them more recently. I certainly could remember all my past and childhood, my mother and sisters. I could remember places that I had been in those two years, like particular classrooms (of which I could not remember the course I was taking, or who the teacher was, even though I'm sure I could recognize them and know their names if I saw them). I could read and write. I could speak. I could remember how to get to places I had been recently. Or how to get home, and realized that I had lived there almost two years, the two years that I couldn't remember many things about.

But there . . . I could remember some (type of) things. I could "feel" things coming back. I felt that I could rebuild my past, my life. My logic was intact. I could learn or relearn if I could remember from the present on, which I was increasingly, if painfully slowly, beginning to do better and for longer periods. My introspection was cut short by the sound of my car driving up to the Infirmary. Someone who knew me had my car! They could help me answer questions, put the pieces back together. They could get me food. By then I realized that the nurse wasn't going to help me on either count. I needed to help myself.

Ben walked into the doctors' office where amid a pile of open medical texts the doctors conferred, yet had no idea about what was my problem. He was told that much, but that at present I was resting quietly, if not peacefully. I walked out of my room, and the nurse tried to get me back in bed. I yelled down the stairs. "Ben, Ben, help. Ben I'm up here, I need food!" The embarrassed doctors let Ben come up to see me.

Ben explained that I couldn't get solid food, that it was for my own good, to be patient. He also explained how we went home first, and then to the infirmary. He told me about Kathy's note in the car. This was very helpful, because now I could retain this information; I

was no longer losing it. He left after I calmed down. I don't know if they gave me something to sleep, or if I fell into a very deep sleep on my own accord.

That night the Biology Building, Barnum Hall, burned down, burning Jumbo the stuffed elephant, the mascot and symbol of Tufts University. On hearing the Fire Alarms I woke up and asked the nurse if I needed to get out, if the fire was here at the Infirmary. She reassured me that the fire was not here. I looked out the window and I could see the Biology Building on fire. Uncharacteristically of me, I simply returned to bed and continued sleeping.

Next morning, Roman, another of my roommates, came by to see me. I had slept soundly and was feeling much better. He sneaked me a cigarette, and we chatted for a few moments. My memory from the present on was working fine. But events of the year before (instead of two years) including the previous day were still inaccessible. He had to run to class, and so he left. I needed food!

I dressed and asked the nurse to see the doctor. The doctor asked me how I felt. I was so hungry, I was desperate to get out and get some food. So I lied and told him I was fine. He proceeded to ask me about my schedule. I gave him my schedule of my second semester a year ago (I had taken a graduate course in solid mechanics that semester, how would he know the difference?) and reassured him that all was fine. He proceeded to let me go. I went to the nearby diner and had a great breakfast.

I sat around on the sunny grass. I felt tired. Slowly things seemed to be coming back. I remembered my schedule. I went home and got my books, checked my schedule on the wall and proceeded to go to class. I walked in and after a few minutes I realized it was a complete waste of time. The equations on the blackboard had the same meaning as Chinese characters (absolutely none). I got up and excused myself. One of my classmates had heard about my amnesia, and explained briefly to the professor.

I decided to take the afternoon off. It was the first time at Tufts that I missed a class. Slowly more and more memories started coming back. By next day, Tuesday, I had remembered everything except the events of Sunday until about 10 p.m. A week later I had remembered everything except the actual game. About a year later I could remember the game. To this day, I do not remember picking up the ball, running forward, kicking it and getting hit in the face and head. I doubt I will

ever remember the play, the actual moment that caused the trauma, my amnesia.

How is it possible that you cannot remember something that happened a half minute ago? How can one forget a two-year period, but still retain many kinds of memories of that period, like faces, names, people, places, directions. Why two years of lost memories and not ten or five years? Interesting and baffling questions. Perhaps the question should be reversed. How is it possible that we remember anything at all?

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After several months of intense study, I developed a system of making notes on the pages of my brain or suicide books and further marking them with post-it notes. It became a habit of mine to walk around with a book, a pen or pencil, and a packet of brilliant post-it notes. I read avidly every time I could, even when I was depressed, as it helped me get my mind off my terrible grief. I began marking and sticking post-it notes to everything that seemed significant. A book could end up with a hundred or more post-it notes sticking out of it, or sometimes just two or three. If I ran out of post-its, I would use newspaper, Kleenex tissues, or even toilet paper.

Memories were involved in the motor and visual system. So this gave me a path to follow. It sounds strange, but through a series of memories of how our body feels, the brain constructs a ghostly representation of the body. This phantom—this imaginary representation, this memory—is then used to control the body. Through many interconnecting small memories of parts of the body a whole is constructed. Likewise with vision. There are cortical areas that “specialize” in detecting borders, lines, movement, contrast and so on. From these signals, we move up the ladder and find areas that respond to the front view of a face, with others responding to a profile. The general pattern is that more complex features are quickly extracted. Eventually, there are areas that specialize in animals, man-made objects, plants, faces. The brain automatizes as much as it can by memorizing it in the cortex. In this way, in a seemingly effortless manner, through complex memory systems, we see and control our bodies.

The expansion of our sensory-memory systems makes possible other uses for these memory systems. Once we have a certain extra capacity of visual memory, it becomes possible to think visually or manipulate objects in our mind’s “eye.” Likewise, using our auditory memories, we eventually can

construct words out of sounds, and then make sentences with the words. And more importantly, think with “voices in our heads.” Once we can construct narratives or visual stories in our heads, we can begin to construct all kinds of biographical memories.

When I turned to the study of memory, there existed many different types. Memories for names, for objects, for tools, for faces. Semantic memory for many facts; procedural memory, to automate procedures such as driving or writing; implicit memory, the kind that seems to pop into our heads; explicit memory, where an effort is made to retrieve a particular memory; biographical memories, and so on. Each one of these types of memory could be disrupted by damage to certain areas of the brain.

Two things kept cropping up: context and attention. Any discussion of vision or movement also eventually turns to what we call attention. Attention would need to become another constituent of any comprehensive theory of the brain. How does the brain create a context, and exactly how does it pay attention? This would lead me in my next path of exploration. It is at this point that I started to use the internet and search for scientific papers that would help me further with information. In some cases the information highway just confirmed that there were others pursuing similar lines of inquiry, which was encouraging. I was not alone, I was not mad. I was almost O.K.

Attention has been well studied, and typically it involves focusing the senses on something. This can be done by fishes, frogs, lizards, birds and mammals. So it didn't surprise me to learn that most of these functions are done automatically by structures in the midbrain. They typically involve body, but primarily neck and head movements to orient the body to focus the eyes (or ears, and even nose) on a stimulus. But attention seemed to be a lot more. Where could I find these attentional systems? First my theory had led me to learn brain anatomy to see if there are structures that could perform what I needed. This is how I learned about the corona radiata. So why not, I asked myself, look at the connections of the thalamus with the cortex and see if anything unusual or a pattern emerged? I drew four pages of connections with different colors and arrows and tacked them to my wall. Five years later, I still have them tacked there, slightly faded, as reminders that when things look impossible you keep going, drawing, thinking, looking, speculating, until something fits and helps make sense of the incomprehensible. Two things popped out: area 7 and area 40, called the somatosensory associative and the associative area, respectively, were the only areas in the cortex with three different connections to and from the thalamus.

This was the beginning of my attentional system theory. It was so beautiful. Area 7 had to do with the attention to the body, and area 40 had to do with visual and auditory attention. Obviously, as their names implied these areas were involved in associative and integrative functions, exactly the kind of functions needed to extract more information from anything, precisely what attention was all about. Curiously, both areas were in the parietal lobes next to each other. This was my second breakthrough.

The first breakthrough was the concept of echoes guiding the stream of sensory signals and triggering emotions. If I used that concept and incorporated it into the attentional systems, what would happen? Once an echo was matched, the sensory signal would be relayed to the place of origin of the echo. This activated the echo, meaning that we identified the signal. The echo in turn sent out handshakes to activate other associated areas. Among them would be the memory areas of what was expected to happen next. These in turn would send an echo, and if matched, the process would repeat itself, confirming one of the expected memories came true. In this way, elegantly, the brain can predict the future by remembering, by using memories. In this way the brain anticipates. But more importantly, eventually there will be a mismatch, meaning that what was expected did not happen. And that would trigger the attentional system. This was such a clever engineering solution to a huge problem. Now, instead of just automatic, genetically wired actions and responses, the cortex, with the use of echoes of memories could help the brain make predictions and detect the unexpected, activate attention to extract information from the unexpected and produce actions and responses much more flexible and varied.

Each one of the senses has its own attentional system. All the attentional systems normally work together and are integrated through the many sensory memory systems, reinforcing each other. In this way, all the complex phenomena of an event—the visions, smells, sounds, thoughts and memories, and feelings—are tied together through the attentional systems into a context. The context is the glue that holds these disparate sensory perceptions into a coherent whole.

At this point, I became very excited about my new discoveries and wanted to share them with others. Paradoxically, I became more isolated. My wife despaired about my brain theories and my “obsession with suicide,” as she called it. Most people listened respectfully, but tired quickly, or worse couldn’t follow what I was saying. Even my doctor friends joked about needing to brush up on their Neurology. I tried not to be despondent and go back and keep learning, digging, exploring, discovering and perfecting my theory. Whenever

I found a fact that contradicted any part of my theory, I would go back and revise the details until it all fit in. But I finally had a framework, even if it was fluid and changing continuously. With the incorporation of emotions into the brain model, a whole new dimension opened up. And literally, that is what emotions do: they add other dimensions to what the brain can do.

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I keep going back to my grandfather's words, "Beware of madness in the family." What exactly did he mean? Now that I am older, as old as Tito was when I was born, I wonder if he meant that there was some madness in him. Was he trying to warn me of similarities between us, of madness in myself?

When I was ten years old, I was finally allowed to go to the family Christmas Eve gathering at my grandparents' home. The party was held in the Imperial Patio, as the plaque that my grandfather placed in every room or hall of his renovated nineteenth century house, proudly announced. I was familiar with this room, as every Tuesday my grandmother would receive all family members for lunch. In that context, one corner of the Imperial Patio served as a living room. To one side, there was a wooden podium in front of my grandfather's phonograph, as he called it. By my time the phonograph was a state of the art high-fidelity record player with incredible volume. The sound was separated into bass and treble from the first amplifier and then fed and controlled separately with two amplifiers. It boasted two large speakers that Tito referred to fondly as the Trumpets of Jericho.

From the front door on the cobblestone street, you entered the garage named "El Barrio de Alcala. The bedrooms would be accessed through a hallway to the left, and straight ahead, crossing "El Barrio de Santa Cruz," you would enter the Imperial Patio. In essence, the house could be easily divided into two areas: the private quarters, and the public area for parties.

The Imperial Patio was designed for parties. It had a huge fan to extract smoke; a spotlight that thanks to a slowly revolving set of filters, illuminated the dance area in different colors, ranging from a light yellow, to a pink, to a red, to a violet. To the left of the entrance to the Patio was a big closet to hang at least one hundred coats. In the corner opposite the sofas and tables that served as a living room, across a big open space that served as the dance floor, was a huge quarter-circle bar. All around the patio there were inbuilt benches that could easily accommodate forty or fifty people, and with chairs added the number could be doubled. The men's room was outside the Imperial Patio, next to the bar; the women's room, as far away as possible from the

men's room, was accessed by going out through the entrance to the Imperial Patio, and through "El Barrio de Santa Cruz."

On this Christmas Eve, finally invited to one of Tito's parties, I was a witness to the intended use of the Imperial Patio. Tito would dress in long coattails, looking elegantly like an orchestra director. Only he was allowed to step onto the podium in front of his beloved phonograph. Bragging that he was the inventor of the discotheque, he was the disc jockey, choosing and playing the records he liked as his guests danced to the music that emanated from the Trumpets of Jericho. From the director's podium he controlled all the lights in the Imperial Patio, as well as his colored spotlight on the dance floor and the extractor fans. From this platform Tito would direct, with baton in hand, the imaginary orchestras that played the music. And this, he proudly claimed, no one had dared to do. This is what made him the best disk jockey in the world. In this way, Tito would direct the best orchestras, bands and groups in the world. All at the immediate disposal of his smallest whim, limited only by the fact that he needed to own a recorded version of their music.

Christmas Eve parties took place under the kaleidoscopic lights, with Tito directing with a luminous baton, from eight till midnight, at which time we would stop dancing for dinner and an exchange of gifts. For several years I thought that this is the way everyone celebrated Christmas.

Over the years I learned from Tito many details of his famous parties. His first party dated back to 1936. He told me that he loved the feeling of directing an imaginary orchestra as he listened to music on his phonograph. One day, finally, he got the nerve to do it in public. For this purpose, he invited a group of his friends, dressed in formal eveningwear, while he dressed in coattails like a director of a symphonic orchestra. He played his records on his phonograph, and with a baton directed the imaginary orchestras and the most famous bands. His guests danced to his music as he frenetically, or slowly, as the music demanded, directed. The party was a success. For the next twenty-three years, he held parties in his house one to three times a month.

He called his parties "The Third Mexican Empire". As Tito explained, "The First Empire was during the reign of Iturbide (1821-1823), and the Second Empire was during the reign of Maximilian of Austria (1860-1865)," but the Third Empire (1936-1959) outlasted the other two by at least eighteen years.

The guests that contributed to the success of his parties would be given nobility titles. The most beautiful woman of the party would be Queen for the Night. Tito would descend the podium only once during the party—to dance with the Queen of the Night. He insisted that a committee selected the

Queen, but I have a suspicion that he decided with what woman he wanted to dance, and at the appropriate moment, honor her by descending from his lofty platform. His guests received titles of princes and queens, dukes and duchesses, archdukes and archduchesses, ambassadors. Guests had designated titles such as The Emperor (one of my grandfather's dear friends, who was deposed a couple of times), His Serene Highness, The Grey Eminence, The Ambassador of Siam (my godfather had arrived from Thailand and went directly from the airport to the party), The Archduchess of Alloway (my mother was from Alloway, New Jersey), The King of Arms (in charge of order), The King of Harlem (George, perhaps the best dancer of the parties, who was black). I think that about thirteen hundred titles were bestowed on different people over the years, some people having received two or more titles. Tito called himself the Prime Minister, as he insisted that if there was a revolution, the Emperor was the one that lost his head. When he was not fulfilling any political duties on behalf of the Empire, he was the Maestro (Master Director or Master of Ceremonies). My grandmother, who was key to the success of his parties, refused to accept a title, and so Tito gave her the title of The People. After all, power ultimately rests with the people, he would say under his breath.

In the beginning, the parties of The Third Mexican Empire were held in The Sacred Room. The Sacred Room was a huge room with 16 foot ceilings, no windows, and housed most of my grandfather's library and art collection. About sixty people could gather there. Later, the outside patio was remodeled and roofed over with a huge sky-light and the parties were moved there. It was named the Imperial Patio. Through the use of curtains, drawn from some of the massive arches that were part of the original architecture, the Imperial Patio could be divided into smaller, more intimate areas. With all areas open, it could accommodate about two-hundred people. Initially, the parties were held on Saturday night at 10:00 p.m. (to save money as guests would have dined already) until roughly 3:00 a.m. It all depended on how much fun Tito was having directing the phonograph. To insure that the party lasted longer, the dancers were obliged to clap after each song as if they were clapping for a real orchestra and its director. The more the guests clapped, the longer, in all probability, the party would continue. However, as Tito told me, you never gave your guests all, you needed to have them wanting to come back for more. The first parties were called The Great Saturdays, and the guests were mostly friends of my grandparents.

Tito had a huge gong hanging on the wall behind his phonograph. To signal the end of the party, Tito would strike the gong once, turn off the dance

lights, and turn on the Patio's lights and exit quickly through a side door. The last person to leave would close the door to the street.

Occasionally, on Sundays, Tito would go bicycle riding with his three children, my father and his two sisters, and their friends. He, of course, was the admiral of the Imperial Fleet, as he called the bicycle squadron. As they became teenagers, his children pestered Tito to play some dance music for them on his famous sound system. He obliged, changed into his coattails, and directed the orchestras of the world for the kids. The dress was informal, and no liquor was served. Since the first party started at 5:00 p.m., Tito called these parties The Crazy Teas. He told me that these parties were his favorite, as the young crowd really loved to dance, and how they clapped for the director. "Maestro! Maestro," they gleefully yelled, and the music continued.

As the years passed, Tito's friends grew older, and had less enthusiasm for dancing into the late hours of the night. As a result, the frequency of the Great Saturdays diminished. On the other hand, my father and his siblings and friends were clamoring to be a part of the Great Saturdays. As a compromise, Tito decided to start grooming the younger people for the Great Saturdays. He organized separate parties, and since they were training for The Third Empire's Great Saturdays, he called them the Imperial School. The format of the Imperial School was exactly the same as that of the Great Saturdays, but on average, initially, the age difference between each group was twenty years.

As the Great Saturdays continued, Tito had to continuously make up for the attrition of the older folks by inviting increasingly younger people. As a consequence, the average age difference between the members of the Imperial School and the Great Saturdays progressively lessened. At one point, he decided to fuse both groups into a new one. Since my father, a football player, was fanatical about All American football players, my grandfather decided that the best (for the parties) of each group would be invited to the new party—The All Imperial. Finally, twenty-three years later, Tito, as he told me, decided to retire at the height of his popularity. He would do the same as the great matador Rodolfo Gaona. When Gaona retired Tito never again went to a bullfight. In 1959 the last All Imperial was held. His dream that my cousin Maria Rosa, the eldest grandchild, would someday attend an event of The Third Mexican Empire was thwarted.

Tito told many stories, but one of my favorite ones happened in the late forties. Some friends called my grandfather at the last minute on a Saturday afternoon, asking if it would be all right to bring a couple that was visiting from Atlanta. You needed a written invitation to attend to the parties, and obviously there had been no time to do so for the out of town couple. Tito

told them that as long as they followed all the rules—dress in formal evening wear, be on time, not later than ten minutes after ten, clap when he directed, and so on—they would be welcome. He would let the Imperial Guard know that their invitation was good for an extra two people.

Naturally, the visiting couple from Atlanta was told that these parties were the most elegant in all of Mexico City, and that only the highest echelons of society were invited; that it was a real privilege to participate. This latter statement was true, even though the former statements were exaggerations. During a break in the music (and Tito's directing) his friends approached Tito and introduced the couple from Atlanta. After a few pleasantries, the Atlantean said, "We were led to believe that only the highest levels of Mexican Society were invited to these parties."

"That is absolutely correct," Tito answered gamely. "Why do you ask?"

"Because there is a black man here," the Atlantean responded dryly.

"That is impossible. Where?" My grandfather responded alarmed.

"Over there," the Atlantean said smugly, pointing in the direction of George.

"That is not a black man, that is George. Now, if you will please excuse me, I have to return to my duties as director."

Ten years after the end of the Third Mexican Empire, Tito, under pressure from his older grandchildren, held a Funeral for the Empire. We were required to invite one-hundred-and-twenty boys and eighty girls, minimum. The format would be of a Crazy Tea—informal attire, 5:00-8:00 p.m., but drinks would be served—and of course all guests should be instructed they needed to clap appreciation vigorously for the director after each song. Tito was afraid that his grandchildren's friends would not be able to grasp the concept, and appreciate his directing as it should be, discotheques being a common thing in the world by then. We told him not to worry—our friends would clap.

For us grandchildren, it was just a great Christmas-like party. For our friends, it was an extraordinary event and insight into what The Third Mexican Empire was all about; the great legendary party! At 8:30, when it was past time for the gong, the assisting old members of the Great Saturdays, The Imperial School and the All Imperials, knelt on the floor in front of the podium and clapped. Tito's grandchildren and many of our friends joined in. The funeral went on until shortly after midnight. My aunt told me that this was probably a record—to go more than four hours after the deadline. The clapping simply would not stop. Tito had a great time and he directed and directed.

What is one to make of Tito's parties? Can all this be a sign of madness? I always felt that it was just a slight, amusing eccentricity on Tito's part. He

always insisted that we should be true to our selves, that we should not care what others think as long as we don't cause harm. We all have our oddities in one fashion or another, and we should always respect each other.

On a different note, Tito would always have one or two martinis before lunch, then nap slightly after his meal, return to work for a couple of hours, and then more often than not, go out and listen to live music. This of course entailed a few more drinks. He went out all his life, on average, five nights a week. He never had a car; he claimed that the cost of maintaining it, and the time to find a parking space didn't make sense when you lived in Mexico City. He never did mention that with a few drinks, driving might be dangerous. I enjoy a glass (or two) of wine with lunch, and later in the evening a couple of drinks makes for a better day. In this, I see myself very much as Tito was. Can it be, as a dear friend of mine suggested to me recently, that some of us have a deep propensity for depression, but we have learned, in many ways, since our adolescence, to keep depression at bay using many mechanisms—working, playing, and drinking intensely? Am I eccentric or do I have a propensity for depression that might erupt at any moment? Perhaps neither; perhaps we're just guys that like to party and drink. The question is, where does normal end and pathological begin?

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My son Mitchell didn't like to discuss in detail his "thing". He said that talking about it made it worse. I later found out that it is common for many people suffering a mental disorder to be in denial, and to downplay their situation. There is a tendency to want to work their way through it. This seems to be a normal, rational situation and in many cases, people do work it out.

I didn't have any insight into the cause, much less a solution to his problem at the time, but if I found a small clue, or if I came across any material that might be relevant, I wanted to share it with him. I resolved to write to him occasionally with my thoughts or insights into his problem. I discussed this briefly with Mitch, "That's fine, dad. Send me whatever you find," he replied.

I felt that I should contribute to the arsenal of tools that Mitch could use to work his problem out. Knowledge could be a tool. I needed to learn more.

I told Mitch that we should keep things in the open. The psychiatrists didn't seem to have any solutions that could help Mitch. I reiterated that

they don't always have the answers and he should try to keep his spirits up. Sometimes psychiatrists don't know.

I told him about the time a group of psychiatrists asked Tito to invite them to one of his parties to observe him at close range. The psychiatrists hoped, then, they could diagnose exactly what was wrong with him. His actions, according to them, had to be the work of a madman. Who else would dare direct an invisible orchestra? In public?

Freud had died a few years before. Psychoanalysis, repressed feelings and unconscious motivations dictated by Oedipus and Elektra complexes were all the rage. Egos, Ids and Superegos fighting for control were in vogue. Once the repressions were brought into consciousness, the unconscious motivations could be understood and, thus, controlled; or so they thought.

Tito told me he was terrified of the idea of having these professionals come to dissect his behavior and make it public information. But after discussing it with some of his friends, he concluded that he didn't have anything to hide. Overcoming his fears, he invited the psychiatrists to attend a Crazy Tea, the most frenetic and energetic of the parties. If they were going to hang him, let them do so as witnesses to his most memorable sessions as director.

Tito alerted some of his loyal followers to the presence of the psychiatrists at their next Crazy Tea, and asked them to be courteous with them. The psychiatrists would be there to evaluate Tito's behavior and not any of the guests; this was a precondition to their invitation. Benny, one of Tito's nephews, said, "Don't worry, uncle. You have nothing to fear. We will show them how much fun they have been missing."

The Sunday of The Crazy Tea in question arrived and Tito checked all the details of the party with extra care: the cases of Royal Crown Colas; the ice blocks; the equi-distanced curtain rings in the Imperial Patio; the wax on the dance floor; the Fountains of Arabia, quickly brought back into service (a broken pipe that splattered water on a window, but with the proper light made a dazzling display); the shine and polish of the floors and windows; the coat-check tokens. He double checked the lighting systems and extractors; checked the arrangement of ashtrays and the availability of the silent butlers; verified the perfect sound of the Trumpets of Jericho, checking a double system of bass and treble controls; he even checked the Monumental Incinerator, the old trash burner, where, when a record broke, the party stopped and a proper funeral was held for the faithful orchestra that would never play at the Empire again. If the psychiatrists were going to diagnose him as some kind of crazy person, let them see it all.

The party started as usual with light music in the background while Tito and my grandmother made the rounds with the guests, making them feel welcome, my grandmother introducing the shy young men to the less timid girls. The savvy guests acknowledged Tito with, "Good afternoon, Maestro," or greeted my grandmother, "Hello, People," which she invariably dismissed but played along.

The Gray Eminence, one of Tito's friends, arrived with the group of psychiatrists, and Tito signaled the King of Arms over and asked him to make sure that they were well taken care of. Tito went to the Imperial Podium, lowered the lights, chose some Rock 'n Roll music, carefully placed the needle on the record, then cranked the volume of the Trumpets of Jericho, assumed the role of Maestro, and, his conducting perfectly synchronized to the phonograph's music gave the orchestra a sign to start and let the party begin. The psychiatrists would get to see what they came for: the Maestro conducting the most famous orchestras and bands of the time, including some of the new small Rock groups.

Half an hour later, as the tired dancers, some in shifts, showed signs of exhaustion, the Maestro switched the lights to a soft purple and changed the music to slow dancing. The volume was turned down slightly to invite more intimacy. The Fountains of Arabia were turned on for added effect. The young men quickly took the opportunity to ask the girls of their fancy to dance. As soon as the dancers were getting comfortable and perhaps too intimate, the lights were changed to bright yellow, the Trumpets of Jericho spilling forth Cha-cha-cha's and Mambos following the Maestro's tight direction.

In the excitement, a record slipped out of the Maestro's hand, and fell to the ground. The Imperial Guards came running immediately with the Imperial Pillow of the Purple Order, named so because the pillow was purple. The smashed record was delicately placed on the pillow. The Imperial Guards escorted the pillow outside, past the men's room, to the Monumental Incinerator. After a brief acknowledgement of the name of the artist of the broken record and a tribute that included a sing-along of the popular music that was lost, the record was thrown into the Monumental Incinerator, and the Imperial Guards marched back to the Imperial Patio. After a proper exchange of protocols with the Maestro, he continued directing the music. His baton twirled, marking time, directing the changes in rhythm and lights.

At the height of the party, during the Tango hour, as he directed an Argentine Orchestra, Tito looked over his shoulder at the Gong on the wall. Noticing this, a small group quickly gathered at the edge of the Imperial

Podium, and careful to avoid touching it, started clapping and yelling, “Maestro, Maestro! Mas!”

Tito obliged the small group and directed another orchestra, this time Glenn Miller’s band. More people gathered and clapped. A quick change of bands, now Xavier Cugat’s, and the crowd got down on its knees, clapping.

Tito looked down from his podium. He was sweating profusely. It was time for the Gong. There on the dance floor, he saw the psychiatrists. They were also kneeling, clapping to the music and yelling, “Mas Maestro, Maestro! Mas!”

I still smile as I remember Mitch laughing at the image of the kneeling, clapping, imploring psychiatrists as Tito struck the Gong, turned the lights on and left the Imperial Patio through a side door. The echo of Mitch’s special laughter still floats, mixed with the sound of Tito’s gong in my mind.

~

I didn’t construct the attentional aspect of my brain theory right away. Like most of its parts, it came slowly as details were worked out spasmodically, in short bursts of insight when I learned enough facts. Attention was part of a process to encode memories. How and when attention shifted or was activated, took a lot of time to figure out. But one process kept cropping up in the scientific literature: what they called an emotional competent stimulus or ECS. Not only did unexpected things shift attention, but also the triggering of an emotion could over ride all and commandeer the attentional systems.

With my theory of echoes it became easy to explain why. A mismatch of an expected echo means something unexpected is happening, and the thalamus automatically shifts attention to the stimulus. The senses focus on the unexpected and attention activates all memories related to such a stimulus to interpret what it is. When the echo represents an emotionally significant stimulus (read ECS), and a match is made, it not only triggers the emotion but also shifts attention automatically to the stimulus. An ECS over rides all other methods of shifting attention. And we have seen how emotions are tied to memories—the chemistry of the emotion is an integral part of the memory. In this way emotions shift attention and simultaneously activate associated memories. We come full circle when we understand that memories can activate, less intensely, the associated emotion. It took me a few months to work out these details. Emotions and memories, both have a context associated with them as well.

Basically, attention focuses the senses on something unexpected, novel or emotionally significant. Everything associated to the stimulus forms part of a

context. The context, like the emotion is a part of the memory. The context and the emotion form part of a very efficient system to encode and to retrieve memories. It stores memories according to similar characteristics and same emotion. The memory systems activate only what is relevant, within a context and related to a particular chemical state or emotion. Otherwise we would become paralyzed by a flood of memories and trivia, unable to respond.

As a stimulus moves up the steps of the various memory areas, occasionally, the highest areas in the cortex can't "understand" the stimulus because the combination of features is not in memory. This is interpreted as novel, a never encountered stimulus, and as a result it is passed on to the highest area of the brain, the hippocampus. Simultaneously, the thalamus triggers the attentional systems. The hippocampus, even though it is not properly a part of the cortex, then initiates the construction of the new memory. The hippocampus will bind quickly together the transitory, active neurons through handshakes, which together represent the new stimulus. Past similarities to the novel stimulus will be used as part of the new memory, but also creating a new context. The attentional systems—in both modes, involuntary or bottom-up and voluntary or top-down—aid in speeding the novel stimuli up the hierarchy to the hippocampus.

Attention is what creates the present. Attention is the part of the process by which the present is turned into a memory and stored in the cortex. Likewise, when attention is directed inwards, instead of on the outside environment, it is part of the process of remembering, or thinking. Attention can be downgraded to awareness. Awareness is the minimum level at which the senses gather enough information to orient us with respect to the world around us.

Since emotions are automatically triggered by memories associated to them, in my theory, this means that when the echo that represents the emotional memory matches an incoming sensory signal, the emotion is triggered. This is true for what some call the primary emotions, such as fear, anger, joy and sadness. In the case of other emotions, called social emotions by some, things are slightly more complicated, but essentially they achieve similar results: the activation of memories related to the emotion.

~

I was up on an eighteen-foot ladder, almost two stories high, installing a water tank for a solar heater. I needed to drill a few screws into the wall to fix a metal support for the tank. As I exerted pressure on the drill, my feet exerted pressure on the ladder, which stood on a mossy patio. As a result, the

ladder's feet slid on the slippery moss. Immediately, adrenaline, as part of the fear response, rushed through my body. My thoughts speeded up, and the fear was immediately placed into the context of falling. As the ladder slipped, seemingly in slow motion, I quickly concluded that I could not afford to stay on the falling ladder, as surely I would break both legs when they got tangled in the ladder's rungs. Once that decision was made, I jumped off the ladder, to face a slightly different situation—freefall from seventeen feet up. My mind focused on what kind, and how many fractures I would sustain as I hit the cement floor. But as I fell, in mid air, in a flash, I saw myself in our backyard on my swing, gaining speed and height, and then shooting off the swing following a parabolic trajectory that would take me twelve-fourteen feet high; then, clearly, at high speed, I remembered when I was ten years old and practiced rolling onto our lawn (as I also did when I shot from the swing) as I jumped many times from a twelve-foot wall. My course of action crystallized as I concentrated on rolling the instant that I touched the ground to brake my fall. When I landed, I rolled, feet to knees, right arm to elbow to shoulder, tucked my head under, curled, on my back, then buttocks, feet forward . . . and got up without a scratch.

~

Letter to my son Mitchell, April 1999 (not mailed but delivered in person when he visited us over a weekend; the beginning of an attempt to understand a panic attack):

From an evolutionary point of view, I would venture to say that motor skills and senses would, in as rudimentary manner as you wish, "emerge" as the first skills of a brain. We are still very far from completely understanding how a nervous system could evolve. But once it has evolved, it is somewhat easier to see how it can be improved with evolution. Once locomotion and senses are evolved, any kind of strategy that would improve on this would be very advantageous.

A processing/interpreting mechanism will enable the senses to differentiate more things in the outside world. A genetically pre-wired memory would help some low, simple life forms, but a memory based on learning and experience would require much more complicated and versatile functioning. Any information from the outside world needs to be evaluated as "good" (positive) or "bad" (negative) or "neither". This information then needs to be used to control motor skills. This

would enable an organism to approach a positive stimulus and flee from a negative one. A simple action-reaction or reflex mechanism would suffice to explain this phenomenon. Needless to say, coordinating motor skills or sensing something (whether by smell, touch, sight or taste) is the result of millions of interactions between neurons. This not a simple act.

The introduction or evolution of instincts and/or emotions provides a much richer set of responses; this could be just a reflex mechanism, a new set of algorithms to recalibrate what is “hardwired” to the changing environment.

*If we try to follow the neural pathway of a signal from the senses, let's say the ear, through the nervous system and brain, what do we get? From Joseph LeDoux's, *The Emotional Brain*, and simplifying a bit, acoustic signals are picked up by receptors in the ear; these are in turn sent down the auditory nerve to the auditory brainstem nuclei (cochlear nucleus and related regions) below the brain. Most of the axons, but not all, cross over to the other side and go up to the inferior colliculus. The axons from there go to the auditory thalamic relay nucleus, which in turn provides the majority of inputs to the auditory cortex, which in turn is made up of regions and sub regions. If this sound is interpreted by the thalamus to be “dangerous,” it sends signals to the amygdala.*

The central nucleus of the amygdala has connections to the brain stem areas involved in control of the heart rate and other autonomic nervous system responses. The amygdala is responsible for triggering the fight-flight response. Stimulation of the amygdala produces heart rate and autonomic responses, as well as a “freezing” response. Lesions to this area of the brain interfere with essentially every fear response, including freezing behavior, autonomic responses, pain suppression, stress hormone release and reflex potentiation.

Axons from the auditory cortex travel back to the amygdala, either to reinforce what the amygdala is doing in dealing with danger, or perhaps to stop it, if the original signal is now perceived to not be dangerous. Axons also travel from the auditory cortex to the prefrontal cortex, and from here also back to the amygdala. From the amygdala axons also go to the paraventricular nucleus of the hypothalamus, which releases corticotrophin-releasing factor (CRF), which goes to the pituitary gland. This gland then releases adrenocorticotropin (ACTH) hormone into the

blood stream. ACTH then acts on the adrenal cortex, which releases steroid hormones (CORT) into the blood stream. CORT freely travels into the brain, binding to specialized receptors on neurons in regions of the hippocampus and amygdala. Through the hippocampus, CORT inhibits the further release of CRF from the paraventricular nucleus of the hypothalamus. The balance between the excitatory inputs from the amygdala and the inhibitory inputs from the hippocampus to the paraventricular nucleus of the hypothalamus determine how much CRF, ACTH, and ultimately CORT will be released.

The shorter the pathway, the quicker the signal can get there. In the case of danger the signal goes from the thalamus to the amygdala. This can get all systems going before the signal reaches the auditory cortex and can be analyzed. Obviously, the chemical signals act at much slower rates than the pulses through the axons.

In interpreting the pathway, the danger signal is relayed from the ear to the thalamus in a few steps. In the process, some axons cross over and relay the signal to the opposite side. But some axons stay on the same side. In this way, both sides of the brain are receiving the stimulus. It is possible that the stimulus received by each side is slightly different. Perhaps it will be used to evaluate or process the stimulus by comparing it to the stimulus that came from the opposite ear. In this way the brain can interpret several things from the stimulus—where the sound is coming from, what the sound is, etc.

If the sound is considered dangerous, it is relayed to the amygdala and the auditory cortex. If it isn't considered dangerous, it is just relayed to the auditory cortex. The auditory cortex then relays the signal back to the amygdala, to either increment the activity of the amygdala (when the sound is dangerous), or stop the activity of the amygdala (when the sound isn't dangerous).

The signal also gets relayed to the prefrontal cortex for further processing. More interpretation of what the sound is will happen here. This information will also be relayed to the amygdala, presumably for the same reasons, except that this information will be more refined. The amygdala has more axons going to the cortex than the cortex to the amygdala, which suggests that this stronger channel helps the cortex know or focus attention on the stimulus, especially when it is dangerous. Attention is focusing all senses on the dangerous stimulus. We couldn't live long if we didn't pay attention to life threatening situations.

Diagnosing a particular Mood Disorder can be difficult at times for various reasons, especially when the border between mild and normal can be blurry. And ultimately, since the mechanisms causing Mood Disorders are poorly understood, the solutions proposed, work poorly.

After Mitch graduated from college and spent a couple of months working in Santa Barbara, he came back home looking for the peace and quiet of Carmel Valley. He arrived with his dog Colby and all his belongings in early August. He had quit his job doing engineering computer drafting, ostensibly because it triggered his panic attacks. I had, over the years, occasionally discussed with him whether analytical thought in general, and math and physics in particular, could be a cause (as he claimed) of his “anxious” feelings or associated with them (as I claimed), because when he first experienced these bad feelings he had been doing math; the math was a trigger. However, at this time, whatever it was, we both agreed that his being home with no stress or pressure would definitely improve his condition.

Just a few weeks ago he had excitedly called me on the phone, “Dad, you won’t believe this. They are paying me eighteen dollars an hour to do computer graphics! I have my own office; even my own phone, and a secretary that will bring me coffee. This job is unreal, I am so lucky.”

Where had all that enthusiasm gone? How can you go from there to this sad state in a few weeks?

Depression, especially the first episode, can be triggered as a reaction to life events. However, today’s prevailing view is that it is more a mixture of reactive and internal factors. How much is reactive and how much internal, probably varies widely among individuals. In Mitch’s case, his first panic attack, could only, if seen from this point of view, be caused by the stress caused by his scholastic burden. Depression didn’t even seem to be a part of the picture at first. However, Mitch had been diagnosed as moderately depressed, and consequently, depression had to be factored in as part of his condition. But to me, then, he didn’t seem depressed. Suicide, at this point, was not even contemplated as a possible protagonist in the picture. Suicide, in my mind, was vaguely related to extreme cases—cases where suicide could begin to be thought of as a form of relief. I couldn’t sense anything remotely like this in Mitch.

Depression can be recurring, and can be, more likely than not, triggered by outside factors. Over time, the cycling will take a life of its own, and depression will be triggered internally. The sooner the depression is attacked,

the more likely the cycle can be broken. The best attack is a combination of medication and therapy.

In the past, Mitch had seen a couple of doctors who tried to find the cause of his depression. They would look for life-shattering events, like “when you saw your mother killed on the railroad tracks”, or “when your father sexually abused you,” or “the time when your younger brother drowned while under your care,” and so on. No such event marked Mitch’s life. His childhood had been relatively happy and tranquil. Because of his negative previous experiences with psychiatrists, he resisted seeing a therapist, as I suggested occasionally.

Mitch was never depressed in the stereotypical way that we sometimes think about severe depression. He was never in a state that he couldn’t get out of bed in the morning, or couldn’t cut his own meat, or laid in a fetal position crying uncontrollably. He never fell into a prolonged situation where day in and day out he was incapacitated for weeks at a time. He finished college, held jobs, had managed to move back home. He just seemed anxious, perhaps slightly agitated.

Mitch started working in our office and warehouse, doing familiar tasks. His plans to go to Spain to start work on a post-doctoral degree had been postponed because of the job he had taken earlier that summer. My wife and I were still planning to go to Europe at the end of the month. We considered canceling our trip a few times, because we both could tell that Mitch was not his normal self. We were worried about him, but when we both, separately, talked to him, he repeatedly told us he was much better and getting better every day.

By the end of August Mitch seemed closer to being his fabulous self. He was surfing every day and playing his music down in the basement. He had a microphone, a keyboard, a guitar and a piano, all hooked up to his computer to record his own compositions. He also had a computer program that he could program to play other instruments if he felt he needed them. He would go out every other day with his friends, skateboarding, chasing girls, doing everything that young men do.

But, he seemed quite distracted. The other outward sign that something was amiss, perhaps, was a bad case of acne, which seemed to be getting worse. Over the years he had battled with acne once in a while, so I thought it could just be youth and normal hormonal changes. But I also worried that this might be a reflection of some internal struggle he was waging. Overall, the things that were troubling him seemed to be within the range of normal for a young man: finding a soul mate, a wife; finding meaningful employment

or pursuing a career with further studies; the insecurities of not having been self-sufficient yet and wondering if he could be so; the yearning to leave the parental nest, but fearing the uncertainties of doing so. In short, the things that concern us as parents, but which, at the same time, we know our children will have to learn on their own.

Mitch's friends, at least the ones he hung out with the most, when asked in a cursory way, didn't think that there was anything wrong with him. I didn't press them, primarily to avoid embarrassing Mitch.

So, with whatever reservations we had, my wife Pat and I decided to go ahead with our trip to Europe as planned. On August 26, 2002, we flew to New York. There we stayed in our apartment near our store on the East side. On August 30 we left New York bound for Madrid. Both of our sons had been to Europe, but for us it was our first time. We looked forward to making the best of it. We spoke to Mitch the day we left; he insisted he was fine.

My sister Minnie's death was only a couple of months behind me. I was oversensitive to issues of life and death, and also attached a disproportionate emotional significance to communications with my surviving sisters. Therefore, when my sister Susana who believes in reincarnation, referring to her past life as a Cardinal in Seville, which had spontaneously triggered thoughts of Segovia, told me to be alert to the year 1474, I listened with special attention. She also explained to me, that generally, other signs would be around to confirm her or my previous life. I had promised her I would do that. My son's suicide, a couple of months in the future, was not even suspected as a remote possibility.

On the plane from New York to Madrid, brushing up on some of my Spanish history, I came across Queen Isabel La Catolica. There it was: her coronation took place in Segovia in 1474.

A couple of hours after Pat and I arrived in Madrid, my cousin Carlos and his wife Lupe joined us, having flown from Mexico. The next day, Sunday, we visited Toledo. On Monday we went to Avila and Segovia. After having an extraordinary lunch next to the Roman aqueduct in Segovia, we went to the Alcazar (Moorish Palace) where Queen Isabel had been crowned. There, we were taken to her bedroom. In the Queen's chambers our guide asked, "Can anyone tell me what is missing in this bedroom?" I knew he was referring to the bathroom. Adjacent to the bedroom was the Throne Room, the biggest, most ornate and spectacular room in the Alcazar. The strange feeling that I had been there before was overpowering. I also knew that the bathroom was on the opposite side of the Throne Room. I couldn't help the feeling that I was somehow connected to these chambers. It was a classic case of *déjà vu*.

The bathroom was cantilevered, built overhanging the huge cliffs on which the castle had been built. There was a small hole in the floor, which allowed the excrement and urine to fall freely down into a ravine far below the cliffs. The bathroom had a breathtaking view looking out on the valley below. In the valley you could clearly see a monastery. Pointing to it I asked our guide, "What is that building down there?"

"It is the Convent of Vera Cruz," he answered. My sister Susana's husband, Othon, was born in Veracruz, Mexico, across the Atlantic.

As I thought about this coincidence and what my sister had told me, I found the idea that I might have been Queen Isabel in another lifetime amusing. Less amusing was the possibility that if so, I would, in all probability, ordered the murder of an important Cardinal who opposed the Inquisition. What would Susana think when I conveyed this to her?

Thinking that my sisters and I had lived previous lives together was a comforting thought. Even if it was just a romantic idea, it felt good to believe that the love between my sisters and I had been forged through many previous lives.

If I had been sensitive to life and death issues before my trip to Europe, after my son's death I am ever more so. In a strange way, the illusion of having shared with Mitch many things in other lives was comforting. The desire to stay connected to him was overwhelming, and the romantic notion of being with him again, in a potential future life, was an attractive thought, even if it was an exercise in futility.

After our return from Europe, thinking back to Spain, I had relished the idea of sharing all my impressions with Mitch, especially about my changed outlook on life after my sister's death. I never got the opportunity to discuss it at length. I was worried about other, more important things. Mitch was still not his usual self. He was fidgety and easily distracted. It was hard to see it, but he seemed to be worsening some days, others improving.

In October, a few weeks before Mitch's death, I tried to talk to him once about his panic attacks. He dismissed it as something in the past, that hadn't happened in a long time. "I just feel anxious, that is all. Some days more, some days less. I'll be fine, dad."

Remission from mental illness requires effort and vigilance. We are all susceptible to stress and trauma from the vagaries of life, and Mitch, with his susceptibilities, had to be struggling to do so. I felt the best I could do, while I convinced him to seek therapy, was to reduce his stress by reducing his responsibilities. I was confident that this would improve his situation.

When I began my research to write this book, my recent trip to Spain continuously impinged on my consciousness. I looked for emotional

connections; links that would help me bond with Mitch. I started to research the life of Queen Isabel. I found a series of coincidences between her and me. She was born in 1451, I in 1951. She, as I, had green eyes and brown hair. Her son, John, died at twenty-one, my son died at twenty-two. My brother-in-law Mitchell John died at twenty-six. All three died childless. Prince John had four sisters, the same as I.

I could not find a cause of death for John, could it have been suicide? If indeed this was the case, in those days, it would have been considered a mortal sin and would have been hidden.

~

According to the Manual, the essential feature of a Panic Attack is a discrete period of intense fear or discomfort in the absence of real danger. At least 4 of 13 somatic or cognitive symptoms accompany the fear. The attack has a sudden onset and builds to a peak rapidly (generally in ten minutes or less) and is often accompanied by a sense of imminent danger or impending doom and an urge to escape. The anxiety that is characteristic of a Panic Attack can be differentiated from generalized anxiety by its discrete, paroxysmal nature and its typically greater severity.

The closest I could come to understanding a panic attack was through a dream I had many years ago. I dream I am asleep in my house. It is dark and late at night. I hear a movement or noise emanating from the kitchen. I consciously decide to move in darkness because the intimate knowledge of the layout of my house would give me an advantage over an intruder, and go investigate. My wife is sleeping soundly in our bed and my two sons are sleeping in their bedroom next to ours as I approach the kitchen. I enter the kitchen very quietly, with all my senses trying to perceive what or who is in there. Suddenly, from behind, I feel two steel hands grab me by the upper arms, close to the shoulders. The hands are cold and hard like metal. The pressure is so great that I can barely move my hands below the elbows pressed to my side. As the pressure increases, I am lifted from the floor. I realize that the strength of this grip pressing into my arms and squeezing my arms into my body can easily kill me if increased.

Then, the pressure is slowly increased. At this point I am not concerned with my own fate anymore; I want to yell out a warning, and hopefully my wife and sons will wake up and escape, running away from whatever is compressing me. I open my mouth to yell but no sound comes out!

If I try to describe how I felt in the dream, I would definitely have to say I was having palpitations, sweating, trembling and shaking; I was short of breath; there was definitely discomfort and fear of dying, even if I felt no chest pains, dizziness and lightheadedness (at least four of thirteen of these symptoms have to be present to diagnose a panic attack). Isn't this what extreme fear or panic is like?

The onset was very quick, almost instantaneous. I grant you I didn't feel nausea or abdominal distress, there was no derealization or depersonalization, no paresthesias, I didn't feel like I was going crazy and I didn't have hot flashes or chills. I was simply as scared as I have ever been. Then I woke up.

I experienced nine (five more than required) of the symptoms that are required, so unless the fear was caused by something real, I guess I could say that, at least in a dream, I have experienced a Panic Attack.

Connections: Historical and Neurological

A few months before I went to Europe, actually a month before my sister's death, I developed, after running one cold morning in May in Central Park, what felt like a muscle spasm under my right shoulder blade. There was a slight tingling in the tip of my right fingers. I thought it would go away in a couple of days. I could control the level of pain, as I slowly discovered, by lowering my head slightly to my left side. As it turned out, the pain got progressively worse, in spite of acupuncture and some relaxant medication. Later I tried deep massage to relieve pressure on the nerves going to my right arm. Eventually I had a chiropractor cracking my neck in ways that I didn't even imagine were possible.

My condition would get a little better, then deteriorate again. The only control I had over the pain and discomfort was by lowering my head down and to the left farther and farther in an effort to relieve the pressure on the compressed nerves. The chiropractor told me that if things didn't improve in a couple of months, I should try more aggressive treatments, probably starting with an MRI to determine what might be wrong. At any rate, I decided to go to Europe, as I felt that this, whatever it was, would resolve itself, even though I had been in pain for a little over three months.

The same naivety that I displayed with my Mitch's problems, I showed with my own. The food and wines of France and Spain kept me thinking that I was all right. Certainly, I felt that I was not getting worse, even if I was not improving. In reality, things deteriorated slowly, but the rate was so small that it was hardly noticeable.

A month later, when I returned to New York, I went running. When I got to a park next to the East River, I stopped to check my shoulder. When I attempted to do some pull-ups on a set of climbing bars, I couldn't even pull myself half way up on the first attempt. I realized how weak my right shoulder and arm was; several muscles were not functioning at all!

A few days later I got home to Carmel, and went to another, supposedly very brilliant chiropractor who straightened out a few kinks here and there, and incredibly was able to restore some strength to my arm. However, he

warned me that if things didn't get better soon, I should seek more aggressive means of therapy.

Next week I was seeing a neurosurgeon. He identified a lesion in a disc between the C-6 and C-7 vertebrae in my neck. He understood my hesitation to do surgery, and he suggested we try some physical aggressive therapy to try to relieve the pressure on the nerves going to my arm. So a physical therapist massaged and stretched my neck; here and there I felt some improvement, but slowly the situation continued to deteriorate. By late October my triceps was not functioning, and I could barely play tennis, but I kept at it, hoping against hope that doing so might help my own healing powers.

I discussed my predicament with Mitch and suggested that he, just like me, might need some radical procedure. In my case, surgery, in his, psychotherapy of some sort. I made a deal with Mitch since we both needed to heal ourselves that we would do everything in our power to do so. He was worried about who would pay for it. I signed three blank checks and told him to use them for his first three appointments. He said he would consider it.

Pat and I went to Acapulco for a week to my father's annual veterans tennis tournament; with my arm practically paralyzed, I was surprised that I could even play. And Mitch, after seeing a psychologist three times during that week, left for New York. He calmly informed us (by phone) that he had been declared fit. That he was fine. He left the day before we arrived from Mexico. We never saw him again.

After Mitch's death I determined that I had to keep my part of the deal: I still had to heal myself even when he was no longer there to demand I do. I even showed up to my physical therapy appointment in Carmel three days after his death, and still went to see my chiropractor one more time. But my condition got worse. By then I was in pain most of the time, and what little pain relief I could muster was by bending my head down and to the left as far as I could.

My neurosurgeon scheduled an MRI.

At the hospital, the technicians told me to lie down on a long, narrow tray and to lay my head straight back.

"I can't do that. Can't I just lie here with my chin against my left breast?"

"No. We need your neck to be straight."

"How long does this take?"

"About twenty-two minutes."

I wasn't sure that I could take the pain for twenty-two seconds, let alone twenty-two minutes; but still, I had promised Mitch I would do whatever it took. What could twenty-two minutes of pain be compared to his death?

“Well, let’s try it,” I said. I took a deep breath and straightened my head. The pain shot through the back of my shoulder and slowly migrated, extending down my arm. The intensity of the pain quickly increased, but I was motivated: I had promised Mitch I would do whatever it took. Suddenly the technicians slid some grips close to my temples and strapped my head. I could not move my head or neck; I no longer had any willful control over my pain.

I concentrated on remaining calm. Then the tray was activated and I slowly moved into a narrow tunnel, the chamber where the actual magnetic resonance imaging is done. My hands were down by my sides. The pain steadily increased. “Twenty-two more minutes.” I thought, “Let’s see how tough you can really be.”

I saw the plastic edge of the tunnel a few inches above me, and I realized that in such a tight space I could not lift my arms up to my head to try to free it so I could reduce the pain. The memory of the chronic pain, the knowledge that I could not control it, that it would take a couple of minutes to get me out of this tunnel, threw me into a state of complete panic. A fear like I had never felt in my entire waking life. Even though I tried to tell myself that this is only about physical pain, the panic swelled and escalated very quickly. My heart pounded. I was into the tunnel up to my waist, soon I would not be able to move my legs; soon, perhaps they would not be able to see my feet! I raised my right knee to block further entrance into this horrible tunnel that was swallowing me.

I signaled with vigorous kicks, “*Get me out of here.*”

Suddenly, I heard a very loud voice through the earpieces they had inserted into my ears, “Do you want out?”

“Yes,” I signaled by moving my leg up and down as if I were nodding. The tray stopped, then reversed. “Get a grip on yourself,” I thought, “Calm down, breathe deep. That’s it. Now you know what the deep clutches of fear can do. Now you know what Mitch felt. What a terrible thing to feel escalating fear uncontrollably and for a seeming indeterminate time. How can doctors stand by and allow someone to suffer through this? How? Damn it!”

As I slowly emerged from the chamber, the pain returned worse than before. Curiously, during the panic attack, I had felt no pain. The pain of the fear, the panic, had been all encompassing, much worse than the physical pain.

The technicians came to un-strap my head from its restraints. I quickly moved my head so my chin was touching my left breast. The pain started to subside. “Sorry, guys.” I said amicably as I sat up, “The pain was too much. I

couldn't take it. Maybe with some painkillers I can do this. Can you give me something?" I was determined; I needed to try again and keep my promise to Mitch.

"You need to talk to your doctor for that. They'll reschedule you." While I felt like I had let Mitch down, I had a new insight into his problem. I returned next week after taking three Valiums. It didn't do anything for my pain, the pain was there, I simply didn't seem to mind the pain too much; and I thought about Mitch. I would get well. I would figure out what happened to him.

It became imperative to understand how psychiatrists organize certain mental disorders. Perhaps understanding this might shed some clues as to why these disorders happen.

Commonly, what we perceive is tainted by our previous experiences. Before my trip to Spain, I had promised Susana that I would be on the outlook for any signs of the Cardinal, as I called her previous life in Seville. It was an activity I took seriously. After Minnie's death, I would never again take my sisters for granted. Underneath the surface, with the grieving process not over, my emotions boiled. I attached emotional significance to events, places and people that otherwise would never have such importance.

After we left Madrid and Segovia, we went to Granada. Then Seville. While there, a series of coincidences caught my attention. I was determined to report back to Susana. It was comforting and amusing to think that we could have been together in a previous life. Where would my sister Minnie fit in?

My grandfather, Tito, had named every hallway and room in his house in Mexico City. For this purpose he had a plaque, like a street sign, on a wall with the name of the room or hallway. The entrance to his house was an outdoor patio that had been roofed over with a translucent ceiling. This lobby was named "Barrio de la Santa Cruz." Next to the Cathedral in Seville are the Jewish quarters, known as El Barrio de la Santa Cruz. We explored the Jewish quarters, hoping to find a reason as to why Tito might have named the entrance to his house after this area. Knowing my grandfather, the best explanation that I could come up with, was that the Jews welcomed all who came to do honest business; otherwise only Jews were welcomed.

Susana had alerted me to be aware of such coincidences. This, I thought, could be a sign that I might be on the track of the Cardinal who had been stabbed to death. The Jewish quarters of Seville, adjacent to the cathedral,

are comprised of ancient buildings along very narrow, winding alleys. If a Cardinal were to be ambushed near his working place, these narrow passages would be an ideal setting.

As we walked around the Barrio de la Santa Cruz, we came across a house with a big skull with the crossbones and the name Susano below it. This was, we discovered, the home of a very beautiful Jewish woman who had gone to the Inquisition in the 1380's to warn them of something illegal her father was going to do, under the belief that she was helping him by preventing him from doing so. Unfortunately, she miscalculated, because the Inquisition tortured him to reveal the extent of the plot and the names of all involved. Her father died under torture. Susano then allegedly joined a Catholic convent for life to grieve her father. Shortly after she joined the convent, she committed suicide, or so it was said.

That night, my wife insisted in going to see Flamenco dancers. We were informed that the best Flamenco was at a place adjoining the Barrio de la Santa Cruz. The place was called "El Cardenal".

When I started writing about Mitch's suicide, I felt a strong compulsion to write about apparently trivial events. Slowly, as I studied and learned more about suicide, specifically, and the brain, generally, I came to understand why these compulsive, seemingly unrelated memories would come to intrude in my mind. They are all connected at an emotional level. As I searched for meaning, I gave meaning to memories with the same strong emotional content.

After Mitch's death, strong emotional attachments involuntarily bubbled to the surface. These strange attractions occupied me when I didn't know how or where to continue my writing or my research on the brain. As I researched Queen Isabel's life, I could not find a cause of death for her son, Prince Juan. I looked through my son's belongings to find more clues and other connections to Queen Isabel and Prince Juan, as if through them, I could connect to Mitch.

In my heightened grieving state, I gave emotional meaning to other coincidences and connections. For example: in the first book I read on suicide, *Night Falls Fast*, Kay Redfield Jamison writes a whole chapter on Meriwether Lewis. I felt strangely attracted to Meriwether, as many of his qualities reminded me of Mitch. Shortly after I finished reading this book, I had a strong urge to be with my son, Freddy. I found him sitting at his desk in his bedroom, playing with some quarters.

"What are you doing?"

"I am arranging these quarters to see which I am missing."

“Oh, I didn’t know you collected quarters.”

“In 1998, the mint decided they would issue one quarter for every state, three a year. But look, in 2000, they minted this Sacagawea dollar.”

“Who is Sacagawea?”

“She’s an Indian woman that went on the Lewis and Clark expedition.”

I studied her face on the coin, felt an attraction towards it. The next day, as I flipped through a magazine, I came across a full-page ad with an Indian woman standing in the wilderness. The ad was for a bank claiming to be as innovative as Sacagawea. Two days later, waiting in a doctor’s office I saw a *National Geographic*. On the cover—Sacagawea. Where is she from? Idaho. My father, born in Mexico City, and living most of the time in Acapulco, built a house in Idaho, very near Yellowstone Park, where he spends the summer in what was Sacagawea’s back yard!

Through these connections, emotionally, slowly, painfully, parts of my story and my brain theory came to life. On an intellectual level, I found it interesting to see how all this past history ultimately has woven the tapestry of our modern world, and has affected us as personally and as surely as the evolution of our brains. Most events of the past cannot be studied in isolation. They have to be considered within a context, and always considered within a mosaic of other relevant events. Sometimes, events in one place affect events in remote places, and even through long separations in time. Similarly, everything is interconnected in the brain and affects all parts. The past, our memories, affect our present.

There are situations where everyone sees the same thing, but interprets it in a different light.

~

Five months after my son Mitch took his life, I believed, that for the previous four months I had been tottering on the brink of Posttraumatic Stress Disorder. I continuously experienced a feeling of anxiety. The anxiety woke me up at night and I had a hard time falling back asleep. When I woke up in the morning, I immediately became anxious. I had a recurrent vision, wide-awake, where I see Mitch starting the act. I can still see him; he is in the landing of the stairwell in our apartment in New York. He is unafraid, even smirking, with an expression of concentration, such as he would show when preparing to do a complicated skateboard trick. He leaps, is in mid-air . . .

Then, the vision changes. The light is different; perhaps a few hours later. The sun has set. It is dark. Mitch is there, hanging immobile in the dark, at the bottom of the stairwell. The vision kept repeating itself as if it had been a real past event; I kept seeing him as he does it, as if I had been there watching, as if I am there watching.

Later in March, I was in our apartment in New York, still suffering from these visions. I had the opportunity to check with Donald, our friend who discovered the body. Eerily, except for a small element in his clothing, every detail was like I saw it.

After inspecting the stairwell, what is strange was that my angle of vision was such that I would have to have been inside a wall of the stairwell to have the proper perspective.

I suffered from another vision during this period. In it, I am standing next to the entrance to La Valenciana, a famous silver mine in Guanajuato. I am looking down this huge round hole in the ground, staring into the darkness. I could not fathom why I had this vision repeatedly. I remember I visited the site about thirty-three years ago, when I first started dating my wife, and we went there, but the mine was closed to the public. All you could do was lean on a fence that was about twenty yards from the mineshaft. You couldn't even look down into the hole, like I do in my flashbacks. It was another element that added to the sense of loss of control of my thoughts.

I could function socially and professionally (at least partially), so I could not diagnose myself as suffering from Posttraumatic Stress Disorder; but I felt very close to it.

"Beware of madness in the family," I recalled Tito's words. I felt like I was definitely going over the edge.

One thing I learned through this experience is how intense emotions can make an imaginary event seem like a real past experience. It was only a question of degree to understand how, because of the presence of such an intense emotion, something remembered or imagined could seem to be actually happening. There was a clear link between emotions, memory and the perception of the present.

I needed to do something in order to snap out of this state of mind. So I did. A change of routine: a trip to Mexico for a few weeks changed the nature of my distress. I no longer felt on the verge of Posttraumatic Stress Disorder. Instead, it was all a bad memory. The vision of Mitch does not intrude spontaneously anymore, but it persists and haunts me as if I had really witnessed it.

Overcoming this mental state was difficult, but I continued exploring the functioning of the brain and got closer to my goal: a brain theory that could explain suicide.

~

Mitch had a flair for music. He and his brother Freddy took piano lessons when they were ten and twelve, respectively. Later, Mitch taught himself to play the guitar, and from grammar school through college, on and off, he was involved with a band. I have pictures of him in fifth grade holding a guitar and a microphone on a stage with his musician friends. The guitar, easily portable, was his preferred companion when he traveled. When Mitch was home, he always played the piano in our living room. He explored new tunes, new melodies, and rehearsed some of his own compositions.

When he was off to college, his guitar went with him, especially in his sophomore year. His guitar was his copilot in whatever vehicle he was driving. I can clearly see him in the blue Jeep Cherokee, his guitar in the passenger seat, his surfboard and skateboard in the back. When he was home for the summers, he set up an elaborate recording studio that consisted of a PC with certain software to which he could hook up a microphone, amplifiers, electric guitar, and an electric organ. The software also allowed him to write music and play it back on any instrument he selected. In this way he had the percussion and the base to accompany him as he played the guitar or the electric organ and sang into his microphone. He would compose music on the piano, write it on his software, then instruct the software to play it on a base, a flute, or drums. He could play an instrument and sing along and record with the previously “recorded” instruments and mix his final version of the musical piece.

Whenever Mitch was home, we could hear the muffled sounds of his singing and his improvised orchestra through the heating vents that went from the furnace in the basement through the entire house. When, occasionally, his mother or I would go down the basement steps, once we were discovered, he would stop playing, and engage us in a good-natured conversation. We both got the impression that he wanted to be alone as he practiced, or that he became self-conscious and a little uncomfortable with our presence. Invariably we would leave. As soon as we did, the music and singing resumed. Sometimes I wondered if he didn't realize that we could hear him singing and playing through all the heating vents in the house.

Here are a couple of his pieces that I found on a floppy disc:

Fountains

F C Dmin Bb

2into(plucked version) /verse/chorus/verse/chorus/2solo/verse/chorus/chorus

Fountains of green light sparkle under blue skies of memory
 Wicked people creep under broken glass in a city made of stone
 Will I see myself in you, a broken violin rang so true
 Through the mazes, I love faces, it's about the people not the places

Don't say what you don't believe
 Empty dreams always disappear
 Your lies, made me reach for the skies
 Can't let your actions be controlled by fear
 I Tried, I died, I know I lied

Green pines slipping away to the sky
 A child's eye on a baseball field waiting for a pop fly
 Flame colored clouds up above a light of madness flashed with a dove
 Childhood dreams are gone the memories wont live long

Smoke drifts out of my mouth, the dark clouds roll away
 And my hammer keeps pounding down to the wound of the pouring rain
 You're all gone now, I've been down low
 Don't talk about it just do it go

Beautifully Ugly

4I 4V 2C 4V 2C 4SV 4V

A C F E

I saw you walking through the mall
 So tall and beautiful glowing and all
 Stopped to ask for your name and number
 Should have known it'd be a big blunder

A F

You're beautifully ugly, that face is a disguise
 For what lies inside, complete demise

G F

You're beautifully ugly and that is a fact

Am F

You could be a model but you have no tact

So run along to wherever you go
 A Hollywood mirror that's loosing its glow
 Or a party of faceless encounters who smile
 Those people will leave you in just a little while

So take my advise and don't live like a ghost
 Cause one day you'll need love and not a host with the most
 But when that day comes please don't knock at my door
 Cause I wont recognize a withered old whore

~

Invariably, as a response to something in our lives we react impulsively, perhaps not even aware that we could do so. There is an element of this in suicide, when without reasoning or thinking out, we just do.

When I was a young father, and my wife had just become pregnant with Mitch, Enrique Gomez Vadillo, my dear friend and godfather to Freddy, called me asking for help. A couple of years before I had done the translation of the play *Equus* by Peter Shaffer, and worked as assistant director when the play was rehearsed in Mexico City under Enrique's direction and production. I had also supervised the construction of the set, the lighting, and the choreography for the actors playing the role of the horses. The play went on to be one of the longest running dramatic productions in Mexico City. Enrique was wondering if I could be in charge of the theatrical troupe that was going with *Equus* on tour around Mexico. The sixty-day tour, with a couple of breaks in between, was divided into several phases: the southeast, starting with Merida and coming back the Gulf Coast; the Pacific coast, starting with Guadalajara and moving north; the central part, starting with Ciudad Juarez and returning to Mexico City; and finally, Monterrey and Saltillo, returning south to Mexico City.

During the weeks of traveling together, I reestablished my friendship with the actors and actresses of the company. Eventually, in the final leg of the tour, we arrived in Monterrey.

After our first two performances the first night, I was returning to our hotel with Maritza, the young and very sexy actress who was playing the role of the girlfriend of one of the main characters, and Ariadne, a very attractive mature woman in her early forties, who was playing the role of the lawyer.

“A friend of mine is playing with his band at that bar,” Maritza said, pointing to a nightclub across the street from our hotel in downtown Monterrey. “Let’s go have a drink.”

“I’m game if Federico comes with us,” Ariadne responded. “I don’t want to be in a bar alone.”

“I’ll go with you two if you promise to behave. I don’t want any problems with having to fend off suitors or your raving fans. So, if you promise not to flirt and be discreet, I’ll go.” This I said, as it had been my experience over the course of our travels in the recent past, that these two good-looking women would easily attract a lot of attention.

“I promise to be good,” Ariadne said, smiling coquettishly. “And we will go for only one drink. I’m a little tired.”

I turned to Maritza. “I’ll be good, don’t worry,” she promised.

So the three of us crossed the street and entered the nightclub. We were seated towards the back. There was a built-in bench on the back wall; small tables were bolted to the floor with a few leather stools around each table. Maritza and Ariadne sat on the bench with their backs against the wall. I sat in a stool next to Maritza. My back was towards two couples in the corner booth. One couple sat adjacent to Maritza and Ariadne on the built-in bench against the wall; the other couple, at ninety degrees to them as the built-in bench curved around the corner of the nightclub.

We ordered a round of drinks, then Maritza got up to go to the bathroom. She walked behind me between the two tables. The man sitting next to Maritza had his left foot in the small space that served as an aisle between our two tables, and in the darkness, Maritza tripped and almost fell. She regained her balance and turned to look at the man. The man didn’t move his foot or apologize. Maritza turned and proceeded to go to the ladies room.

After she returned and sat down, I leaned towards her and, as a joke, almost in a whisper, said, “You promised to be good. I saw you. You tripped on purpose looking for any excuse to flirt with our neighbor.”

“I did not and you know it. It’s just dark, I didn’t see his foot,” she said laughing.

“What the hell are you saying about me?” the man interrupted yelling.

“Excuse me, Sir. We were not talking about you. We have no reason to do so, we don’t even know you,” I said amicably trying to defuse what seemed a stupid situation. “I was just talking to my friend; nothing related to you, Sir.”

“You’re lying to me!”

“I have no reason to lie, Sir. Once again, I apologize if anything we did offended you. It was not our intention,” and with that I turned to our table.

A few moments later, the band returned to the stage from their break, acknowledged the presence of my two beautiful companions, then began playing their music.

"I think we should finish our drinks and go," Ariadne said, reinforcing what Maritza and I were thinking.

Just then, Manuel, one of the young actors, who was playing the role of one of the horses, walked into the nightclub, spotted us and came over. He sat on the stool to my right with his back to our neighbors. I said softly to him, "Don't turn, but the guys sitting behind us are kind of weird; we're just finishing our drinks and we're leaving." A few moments later he turned to look at them.

"What are you looking at?" the man sitting directly behind Manuel asked in a menacing tone.

"Nothing, Sir. I was just getting my bearings. I'm sorry," Manuel said, and he turned back to our table.

Suddenly, the man directly behind Manuel grabbed him by the hair and violently jerked his head back. "When I'm talking to you, you don't turn away!" he screamed into Manuel's face. As he yelled, I reacted without thinking and jumped onto our table. I knew it was bolted to the floor, and I guess I felt that in a scuffle I would have a little extra advantage standing on the short table. It also opened my only avenue of escape, as I was trapped with Manuel pinned down to my right, Maritza to my left, and my back to a potential aggressor.

The other man, the one sitting next to Maritza, had also stood up immediately. He yelled to me, "Don't move or I'll kill her!" I was looking straight into his eyes and I didn't quite understand what he meant. I vaguely heard someone shout something about a gun; that focused my attention. He was holding a gun with his left hand and had pressed it against Maritza's stomach. I raised both hands. "Sir, you don't need to worry about me. We meant no harm, and certainly no insults. This is a misunderstanding. We were just leaving," I rattled quickly trying to defuse the situation.

"You are an asshole. Go fuck yourself!" he yelled at me. "You make the wrong move and your friend is history."

"Yes, Sir. Whatever you say. Whatever you say, just calm down," I said still holding up my hands. In retrospect, I don't know how or when, but I already knew that this man was left handed (because he was holding the gun with his left). I kept looking into his eyes, even though my attention was focused peripherally on the gun.

"You are an idiot!"

“Yes, Sir.”

“You think that you can come here and do whatever you like!”

“No, Sir. I apologize. Anything else you would like me to do?”

Suddenly he lowered the gun ever so slightly. Without thinking (I was a new father with a baby, I couldn't have been thinking), I went for the gun barrel with my right hand and pushed it against the wall. Again, I don't know how, but I knew that everyone would be standing and if the gun fired, the bullets would fly parallel to the wall; everyone standing would be about a foot away from the path of the bullet as long as I could hold the gun against the wall. With my shoulder and head, I had pinned the man against the wall, and with my left hand I had his right hand held down. I pushed him against the wall, exerting leverage by pressing with my legs and feet on the table bolted to the ground. The gunman, with the seat of the bench pressing him behind his knees, was thrown off balance and in an awkward position. He struggled unsuccessfully to free himself, yelling obscenities in my ear. I held on and apologized softly, agreeing with everything he said.

At that moment, I realized that I was holding a gun barrel and wondered if he fired the gun would it burn my palm. I also realized that my only alternative if this happened was to hold on to the barrel no matter what. A burnt hand would be a small price to pay to make sure nobody was shot. I also realized, that if I had been properly trained, I could have killed this man in the same instinctive way I went for his gun. But, fortunately for him and me, I wasn't properly trained; now I only wanted to get out of this situation.

I felt the man stop struggling, and I was able to push the barrel of the gun downwards. I took this as a sign that perhaps he, too, had acted on impulse, and was now looking for a way out. I let go of the gun barrel and stood up slowly on my table and raised my hands as a sign of acquiescence. I turned to see if Manuel had been released, but he was still pinned back against their table. I could see he had a glass in his right hand out of sight ready to strike the man who had him pinned. With my eyes, and somehow he understood, I indicated to let go of the glass; it could only make things worse for him.

I was looking at Manuel, making sure that no surprises would come from my back before turning back to Maritza's assailant. The gunman used this opportunity to hit me with the butt of his gun in the middle of the head. I think I passed out, because my next memory is of lying on my back on the table and seeing an empty bottle of Bacardi fast approaching my face. I was able to lift both my hands to deflect the bottle. It broke against my right wrist and left fist. Simultaneously, a man had grabbed me by the shirt and pulled me away helping me to my feet.

“Calm down,” he said to me.

“I am calm, believe me,” I said to my savior

The two men had their guns drawn and were pointing them at all of us as they walked backwards with their women towards the entrance of the nightclub. “Nobody move!” they yelled as they retreated.

“Cowards! Faggots! Assholes!” Maritza was yelling at them. “Someone call the police!”

“She’s the one that needs calming down,” I said to the man that had pulled me from the table. Blood was dripping down my face from my head. I had many small cuts in both hands.

“They’re getting away! Call the police,” Maritza shrieked.

“They are the police,” somebody said.

The two gunmen and their women walked out of the club into the night.

“Calm down, Maritza. It’s O.K.,” I said.

“It’s not O.K.,” Ariadne said turning to me. “How are you? Are you all right?”

“I’m fine.” I touched the small opening in the top of my head. “Ouch. How is Manuel?”

He was sitting where his assailant had sat, with his back against the wall. He stood up. “I’m fine. You’re the one that looks a mess.” My shirt was missing a couple of buttons and a tiny trickle of blood came down my forehead and nose.

A few stitches later I was fine.

I am still amazed at how I reacted instinctively, at least that is what I call it; one moment I was standing on a table with my hands up in the air, wondering if this man was a real threat or not, and then without thinking I had suddenly lunged for the gun. I had somehow concluded that I couldn’t afford to find out if he was or wasn’t a threat: I simply was going to make him a non-threat. I still wonder if my instinctual behavior was correct. Would any other actions have produced a better outcome? If I had been trained to kill, would the other man have killed me after I killed his friend? If Manuel had attacked his assailant with the glass in his hand, what would everyone else’s reaction have been? In retrospect, my instincts were right. Nobody was hurt, except of course, for my minor injuries. But I feel lucky I got off so lightly.

As it turned out, they were policemen, and easily identified. A few hours later they were arrested. Assault with a weapon with the intention to hurt: Ten years. That was their sentence.

The day before Mitch died, I was reading an article in *Time* magazine related to Freudian ideas. Four days after his passing, I stumbled on the open *Time* article, and the word “aggression” jumped out at me from the page. Immediately, intuitively, I understood that aggression was deeply connected with fear and panic attacks; that the fight-flight response has two sides. My intimate knowledge of my son allowed me to quickly understand a part of why and how he committed suicide. A panic attack had turned into anger. But Mitch was a special case. If I wanted to help others, I needed to explain, not only the specific case of my son, but also all suicide cases. Eventually I was able to put it all into a scientific framework.

Fear is one of the better studied emotional reactions, so I naturally turned to study it. As I mentioned before, it was a crucial part of my investigation, because it led me to postulate that the matching of echoes that represent an emotionally significant memory with incoming sensory signals, is the main mechanism that triggers emotions.

In experiments with rats, it has been established that a fear signal, such as a bell that rings right before a shock, travels from either ear, for illustrative purposes let's say the sound goes from the right ear, to the left thalamus. Then the thalamus automatically signals the amygdala to start the fight-flight response, while simultaneously relaying the signal to the cortex for further processing. The further processing in the cortex then reinforces or dampens the initial reaction. The thalamus, in my theory, is not only a relay station, but also a matching station. When matches are made, the signal is relayed to where the echo came from and in many cases, depending on the nature of the echo, other actions are triggered automatically, such as an emotion or the activation of the attentional systems.

Panic attacks could be seen as the automatic triggering of fear for the wrong reason or no reason at all and the mechanism that normally would dampen the fear reaction doesn't kick in. Or conversely, a fear reaction could be triggered for the right reason, but the fear dampener mechanism isn't working at all. In essence, a panic attack is a fear that escalates, and like a runaway train building speed, the fear builds on itself and turns into uncontrollable panic that can't be switched off.

So far so good. But how do you correct this situation when it develops? I still don't know what would be the best course of action to deal with panic attacks. At this point in my research, I was led down two connected paths: the first one is to try to see what other circuits produce or trigger other

emotions, and perhaps might help elucidate how to correct a situation where emotions are triggered for the wrong reason or no reason, or where emotions are triggered for the right reason, but can't be turned off; the second one, I found it curious that even though the fight-flight response has been extensively studied, I could not find anything relating to when or how one switches to the other—when does fear turn into anger?

The fear reaction, first produces a paralyzing effect which allows two things to happen: one) it becomes easier to hide from danger if you're not moving; and two) it allows for a brief, short period to determine if the fear response is correct, or if it is a false alarm. Simultaneously, adrenaline and other stress hormones are released into the body to prepare it to escape: the heart rate goes up, blood flows into the muscles, the liver releases more energy substances into the bloodstream, unnecessary bodily activities, such as digestion, shut down. In short order, the body goes into an emergency mode where it will be able to perform, for a short burst of time, beyond what it normally can do. You can run faster, jump higher, move heavier objects out of the way and so on. Curiously, the exact state of the body when the fear response is triggered, would be beneficial for the body when it engages in the fight mode—running faster and being stronger and feeling no pain.

I needed to explain how fear and anger are related. While I pursued the neurological study of emotions, and fear and anger in particular, one thing became apparent: each emotion produced more activity in one hemisphere or the other.

Different emotions are produced by different brain systems. Yet, the brain induces emotions from a remarkably small number of brain sites. Each emotion indicates a slightly different state. The perception of the emotion is what we call feeling. The chemistry of feelings produce physical changes, as we speak of the thrill of surprise, twinges of guilt, throbs of passion, pangs of sadness or gnawing grief.

Background emotions are very subtle, such as malaise or excitement, edginess or tranquility. Primary emotions are easier to talk about, because we are all very familiar with them. These include disgust, surprise, sadness and happiness, and not surprisingly, fear and anger. Social emotions include sympathy, embarrassment, shame, guilt, pride, jealousy, envy, gratitude, admiration, indignation and contempt.

In general, positive emotions are associated with a slight increase of activity in the brain, a sort of speeding up of neural activity. Conversely, negative emotions are related to a slight decrease or a slowing down of the brain.

Emotions are all about transition and commotion, sometimes real body upheaval. The fact that emotions triggered more activity in one side of the brain compared to the other, and that they passed relatively quickly would lead me to explore another part of the puzzle. How do we get back to neutral calm? And under what conditions can emotions be sustained for long periods of time, lasting hours, days or months. This, obviously points to mood disorders, which lead to increased suicidal behavior. Now I knew I had a road map to help guide my explorations. I just needed to keep putting pieces together.

Suicide Statistics

In the preface to her book *My Son . . . My Son*, Iris Bolton laid out the dilemma that she thinks she and all parents who lose a child to suicide face:

I don't know why.

I'll never know why.

I don't have to know why.

I don't like it.

What I have to do is make a choice

About my living.

I had promised Mitch that some day we would find an explanation of his problem. I hadn't considered that suicide might be a part of it. And so now, to keep my promise, I need to explain more than panic attacks. I need to explain suicide.

Right after Mitch's death well meaning friends gave me a series of books on suicide. These books defined suicide as, "Death from injury, poisoning or suffocation where there is evidence that the injury is self-inflicted and that the decedent intended to kill himself/herself." They brought me face to face with the simple questions of the how's and where's and who's of suicide. The statistics are staggering. The question of why remained elusive. Yet, my intimate knowledge of my son allowed me to speculate and perhaps even know, at some intuitive level, why he committed suicide. But what about all the other cases?

I focus on suicide among the young (thirty five years and younger) and otherwise physically healthy. However, many of the causes for suicide among the young apply to older people. First, one thing needs to be understood: Psychiatric disorders are an illness. It is impossible to understand the type and the intensity of the suffering that people who have these disorders endure when one hasn't experienced the suffocating pain and horror that accompany these conditions. This kind of pain can be more severe and unbearable than physical pain, and certainly less comprehensible to the sufferer.

The rate of suicide among the young is increasing but there is no consensus as to why this is so. The reasons proposed are varied, going from the threat of nuclear extermination, terrorist attacks, MTV, peer and parental pressure, child abuse, promiscuity, increased affluence, excessive freedom, boredom, Watergate, too much discussion or too little discussion on suicide. The fact remains that we don't know.

Allow me to put suicide statistics in perspective: in 2001 we lost ten times more people to suicide than to terrorism in a year. In some years there are more deaths by suicide in one hour than losses due to terrorist acts in the United States in a whole year.⁶

There are approximately thirty thousand deaths by suicide per year in the United States and almost half-a-million suicide attempts serious enough to require emergency room treatment.

Suicides of people under thirty-five number about ten thousand per year. Suicide is the third leading cause of death among the young. These figures include all types of suicide.

Underreporting of suicide is estimated at between ten to twenty percent. However, some experts believe that suicide rates could be three to five times higher. The numbers vary enormously. Many drug overdoses and one-car accidents that could be suicides are reported as accidental deaths; some coroners and doctors are reluctant to label a death as a suicide if there isn't enough evidence.

About half of all suicides are committed by people under psychiatric care, and yet most come as a surprise. This seems to indicate that something is quite wrong with our thinking as concern suicide. Suicidality should not be lumped together with simple symptoms such as disrupted sleep; nor should

⁶ The figures and numbers on suicide in this section are taken from the following sources:

Kay Redfield Jamison, *Night Falls Fast*.

John H. Hewett, *After Suicide*.

William Styron, *Darkness Visible*.

Carla Fine, *No Time to Say Good-by*.

Harold I. Kaplan, *Synopsis of Psychiatry*.

Eric Marcus, *Why Suicide?*

Adina Wroblewski, *Suicide Why?*

E. Fuller Torrey & Michael B. Knable, *Surviving Manic Depression*.

Andrew Solomon, *The Noonday Demon*.

it be ignored because depression has lifted, because most suicides are related to depression, either unipolar or bipolar. Suicidal behavior can be linked to other causes, such as schizophrenia, personality disorders, panic attacks and anxiety disorders; perhaps suicide should have a diagnosis of its own, because most that suffer these other ailments do not commit suicide.

There is a range of suicidal thought and behavior. It varies from risk-taking behaviors that could include any activity that is dangerous, like driving fast, parachuting, rock climbing and so on, through different degrees and types of suicidal thinking and ends with suicide attempts and suicide.

The divide between suicidal thoughts and action is not clear. A potential deadly impulse might be interrupted before it is ever acted upon, or an attempt with mild intent of death might be carried out with a full expectation of discovery and survival. A few individuals use suicide threats or attempts to provoke change in the behaviors of others.

There is no great correlation between suicide and the severity of depression. Some suicides occur during mild depression while others cling desperately to life under the worst imaginable conditions: loss of loved ones, work, freedom, and even country or home, all simultaneously. And people with bright futures, like Mitch, occasionally resort to suicide. Suicide is not an escape from a difficult life; it comes from the dark recesses of the brain, beyond awareness and rationality.

Different investigations conclude that 10% of the adult population has had suicidal thoughts at some moment in their lives. Of the adult population interviewed, 3% reported having attempted suicide one or more times. Of those who attempted suicide once, there is a 10 to 15% chance they will eventually succeed in killing themselves. This group is the one that is at highest risk of suicide.

Variations of between 1 and 4% of adults, between countries, even regions in countries, and cultures in attempted suicides is the norm. Adolescents vary more, reporting between 2 and 10% with a significant number reporting more than one attempt.

Gay people (15-20 percent) attempt suicide much more than heterosexuals (3.5-4 per cent). Gay people probably suffer more stress than heterosexuals, and this could be a factor leading to higher depression rates.

In the industrialized nations, there is evidence that the rate of suicide among the young has doubled or tripled over the last few decades, with the greater increase happening between the 1950's and the 1970's and subsequently remaining more or less steady, with older people reducing their rate of suicide. This overall increase might be due to better reporting. There

is strong evidence that mood disorders tend to run in families. At the very least there is a genetic disposition to mood disorders.

Suicide rates increase with age. Among men, suicides peak and continue to rise after age 45; among women, the greatest number of suicides occurs after age 55. The elderly attempt suicide less often than do younger people but are successful more often. For males between 15 and 24 years old there was an increase of 40% in the suicide rate between 1970 and 1980, and is still rising slightly. The suicide rate for women in the same age group showed only a slight increase. Among men 25 to 34 years old, the suicide rate increased almost 30 per cent.

There is verification that high levels of serotonin inhibits violent, aggressive and impulsive behavior. But rising levels of serotonin can promote these behaviors. Postmortem studies of suicides show low levels of serotonin in certain locations in the brain, especially in areas associated with inhibition, which in turn might produce a strong influence to act impulsively on emotion. More than half of suicide attempts are impulsive; they occur within the context of a premeditation period of less than five minutes with disregard for the consequences to others. Even when many suicidal patients have a well-formulated plan, the final decision to commit suicide is often determined by impulse.

Lower levels of noradrenaline and norepinephrine, though less consistently than the serotonin studies, appear to be reduced in postmortem suicidal brains. This suggests, and this is only a suggestion, that low levels of some neurotransmitters might play a role in suicide, perhaps in indirect ways.

The method of suicide varies from place to place and from time to time. Yet only a few methods account for all suicides: gunshot, jumping, poisons, gas, hanging and drowning. I feel it is obvious that if guns are easily available, there will be more suicides by the use of guns. In the United States, guns are the leading choice of death by suicide. In England where the use of guns is highly restricted, guns rank fifth as the method of choice. Hanging, strangulation and suffocation are lumped together in the United States and are the second leading cause of death involving suicide. If chemicals are easily available, then this will be a more frequently used method, as seems to be the case in China, where pesticides and fertilizers are easily obtainable. In India, one particular method used in high proportion is jumping in front of trains. If high buildings are handy, then more suicides will be recorded by jumping from high places. Economic status does not reflect anything on suicide rates, even though people in the upper class suffer more from mood disorders.

External factors can lower suicide rates. When guns or medications are hard to come by, suicide rates are lower than elsewhere. In England, when they switched from lethal coke gas to less toxic natural gas, annual gas related suicides dropped from 2,368 to 11. Reducing the means to kill oneself impulsively will increase the chances that the impulse will pass.

In 1992 the suicide rate for people sixty-five and over group is 61.2 per 100,000, compared to about 44 per 100,000 in people under sixty five. It shouldn't be surprising that the elderly have a higher suicide rate; after all, they face greater loss of health, possible loss of longtime spouse or greater loss of status than their younger counterparts, with lesser possibilities of re-attaining their accustomed situation.

People suffering from the following seven diseases of the central nervous system have a higher risk of suicide: epilepsy, multiple sclerosis, head injury, cardiovascular disease, Huntington's chorea, dementia, and acquired immune deficiency syndrome (AIDS). All are diseases in which an associated mood disorder is known to occur. Four endocrine conditions are associated with increased suicide risk: Cushing's disease, anorexia nervosa, Klinefelter's syndrome, and porphyria. Mood disorders also attend these diseases. Peptic ulcer and cirrhosis, both found among alcoholics are two gastrointestinal disorders with an increased risk of suicide. People with prostatic hypertrophy and renal disease treated with hemodialysis, both problems with changes in mood, are also at a higher risk for suicide.

Most suicidal people do not openly announce their intentions. However, about eighty per cent of people that commit suicide leave clues to their therapists or doctors, or loved ones and friends as to their intentions. Naturally the elderly's clues are taken less seriously. Men commit suicide three times as often as do women, a rate that is stable for all ages. Women, however, are four times more likely to attempt suicide, as are men.

Suicide motives vary tremendously and cover a very wide spectrum. On one end, we have people with a terrible chronic disease like cancer or multiple sclerosis, where they face a continuously worsening quality of life and/or pain. Rational suicide is a frightening idea, but this type of decision is generally understood. Yet, most people that are faced with these terrible illnesses *do not* commit suicide.

Most non-psychiatric medical illnesses, even such serious disorders as Huntington's disease, multiple sclerosis, or cancer, so often tied to pain, disfigurement, diminished dignity and independence, and death, are in proportion to psychiatric disorders, one sixth to one twentieth less likely to end in suicide.

In the state of Oregon they have twice approved the Death with Dignity Act, which allows doctors to write lethal prescriptions for terminally ill patients who want to control the time and place of their death. Patients only qualify if they are fully conscious and able to administer their own overdose. It is understandable that terminally ill patients that are facing a diminishing quality of life would take this route, however, in seven years, according to the Oregon Department of Human Services, two-hundred-and-eight people took legal, lethal overdose prescriptions—out of 64,706 Oregonians who died of the same diseases.⁷ In other words, 99.68% of people facing a terrible death chose life over suicide, even when this kind of suicide is comprehensible by most. This translates as a suicide rate of 320 per 100,000, about one tenth of the suicide rate of people who suffer severe depression.

The only group of people that is completely resistant to suicide is pregnant women. The cause is not known, but it is straightforward to imagine that it is related to producing new life.

There are people who commit suicide for reasons of honor: the General facing military defeat, or the banker caught stealing. But the most common cases of suicide involve people suffering from mood disorders like depression, manic depression and schizophrenia. Almost 90 per cent of those who commit or attempt suicide have a diagnosed mental illness. Roughly 75 per cent involve depression and manic depression, with schizophrenia accounting for about 10 per cent, and dementia, delirium and personality disorders about 5 per cent. Panic attacks and anxiety disorders are generally diagnosed alongside these other conditions and greatly increase the chances for suicide. Severe anxiety and severe agitation are portent predictors of suicide. One in five people suffering from major depression and nearly half of people suffering from manic depression will attempt suicide. This is the group that is at highest risk.

More depressive disorder patients commit suicide early in their illness; more males than females; and the chance of depressed people killing themselves is increased by their being single, separated, divorced, widowed or recently bereaved. Suicide is more likely at the onset or the end of a depressive episode. One of the highest-risk periods for suicide is, ironically, when patients are recovering from depression. The transition from their low state to a normal mood is a terrifying and hazardous experience. There might also be huge disappointments when after feeling well again one feels ill all over again. The resurgence of will and vitality, signs of returning health, makes possible the

⁷ Margot Roosevelt, *Choosing Their Time*, Time, April 4, 2005.

acting out of suicidal thoughts. In all these cases there is also a wide range or spectrum of going from people who have been suffering and have suicidal thoughts for many years to cases where there are no previous warning signs that are visible on the surface.

The age of onset of schizophrenia is typically in adolescence or early adulthood. Most schizophrenics who commit suicide will do so during the first few years of their illness. People with schizophrenia who are better educated and more intelligent, perhaps because of their greater insight into their illness are more likely to kill themselves.

Nearly 3 in 4 people with borderline personality disorder attempt suicide and 5 to 10 per cent do kill themselves. In these cases, they are exquisitely sensitive to actual or perceived rejection. About 40 per cent of these suicides are committed in the presence of other people.

Substance abuse and alcohol increase the chances of suicide by disinhibiting certain behaviors; risk taking, violence and impulsivity are increased. For those who are potentially suicidal, this may be lethal. Many times, mental illness and drug abuse go hand in hand as a form of self-medication.

Among people without psychiatric illnesses the suicide rate is about 8 per 100,000. For people with moderate depression the rate escalates to 220 per 100,000, and to 3,900 per 100,000 among people with severe depression. Depression and manic depression are associated not only with completed suicides but also with serious attempts at suicide. The risk of someone making a second suicide attempt is highest within three months of the first attempt.

The highest predictor of suicide is a previous attempt; almost one third have attempted suicide before. One percent of those that attempted suicide will end their lives within a year and ten percent will do so in ten years. There are about sixteen attempts per every completed suicide.

Eight out of ten people who eventually kill themselves give warnings of their intent (primarily to their doctor or therapist). Fifty percent say openly that they want to die. It is a particularly dangerous sign if a person admits to a plan of action. It can also be an ominous sign when a person that has been threatening to commit suicide becomes quiet and less agitated.

There are many guidelines to evaluate suicide risk, mostly having to do with answering the question, "Do you have suicidal thoughts or plans? Do you feel like dying?" However, these are not reliable as my wife and I found out the hard way. Many people, during severe bouts of mental disorders have suicidal thoughts and never act on them. Family, friends or any person in a support capacity dealing with anyone that has a mood disorder, especially

depression or manic depression, should be communicating with each other all signs that can be indicative of “abnormal” behavior.

If my wife had told me about some things she saw in Mitch’s behavior in his last few months, and I had shared with her what I observed, it is probable that we would have acted in a more concerted fashion, as the combined information would have alerted us both to a more serious situation than either of us interpreted. Also, I must insist that communication with the person that is suffering the mood disorder be opened and maintained at all costs; even when the person doesn’t want to talk “about it.” It is important to be emotionally engaged even when this produces extreme discomfort and it should be imperative to work against isolation.

Only about one in five people who commit suicide leave a note. These notes generally don’t even start to reflect the dark interior motives that could drive these desperate acts. Even when the perpetrator is a skilled writer, it is difficult to envision that a depressed, confused, hopeless state of mind might lead to great eloquence.

Unfortunately, the pharmacological arsenal to relieve the misery, hopelessness and the cumulative dark despair with all its pains and chronic distress is today limited, though it is much greater than in the last decade and increasing.

It is very tempting to look at the life of someone who has committed suicide and attach to it a huge complex tangle of issues. No one illness or event causes suicide, but psychiatric illness is almost always present. Each case of suicide is ultimately unknowable. It is a very private and terrible act. The privacy of the mind is inaccessible. Any clue we might infer is indirect. Suicide is not necessarily a very awful way to die, but the path that leads to it generally is; the mental suffering is prolonged, intense and relentless. The suffering is inexpressible. Love, friendship and understanding are hardly ever enough to counteract the pain and destructiveness of mental illness. But love and support should be at all times unflinching provided if there is hope for success.

It is important to dispel some erroneous notions about suicide. Many depressed people think about suicide often, but it is an unreal thought, an abstraction, even when depression is worsening and the methods of suicide contemplated become more violent. Occasionally, the thought of suicide allows the depressed person to exert some control and help them continue on. The knowledge that you can kill yourself one minute later might allow you to survive the next few moments. I cannot emphasize this enough: most young people that commit suicide do not want to die; it is not an escapist

way out. In some cases suicide is an act of extreme courage, misguided at the moment, but definitely not an act of weakness or cowardice.

Suicide is generally a part of a disease, generally depression, manic-depression in the depressive phase, or schizophrenia and personality disorders. These mental disorders produce a diminished sense of self, or even a total loss of self, and it is only under such conditions that suicide becomes possible. With a loss of self, the possibility of self-harm becomes a logical consequence of distorted thinking.

Just as the AIDS/HIV campaigns to generate more awareness of the dangers and forms of transmission of the disease helps lower the spread of this deadly killer, awareness of the problems relating to suicide should help us prevent some of these tragic deaths.

Most of the SSRIs, the more popular antidepressants, have not been studied to determine their capacity to prevent suicide. In manic-depressive patients using lithium, which has been more rigorously tested, the rate of suicide among patients who discontinued lithium treatment increased sixteenfold. Most people suffering from severe depression find it hard to feed themselves, and under such conditions the energy needed to end one's life is simply non-existent. It is possible that some drugs that assuage depression increase the possibility of suicide by increasing motivation in general. It is important to distinguish between an enabling and actual cause.

One undisputed fact remains: we are all—doctors, patients, loved ones—very ignorant of the causes and reality of suicide. I discussed suicide briefly with Mitch and he quickly dismissed the idea, especially as it pertained to him. Although he was a smart young man and I am much more educated than the average person, I couldn't even begin to help guide my son through his problems. At one point, I did promise him that a solution for his problems, at least an explanation, would be found, even if he was fine and all this became an experience in his past.

As a survivor of suicide I cannot even begin to express the devastation that is left in the wake of a young death. Unfortunately, I have seen that premature deaths, irrelevant of the cause, always have a much greater impact on us. One is always left with a sense of having been cheated unfairly.

Depression, Schizophrenia, the Regulation of Emotions and the Sense of Self

My research on the brain and emotions lead to mood disorders, which pointed clearly to a slight increase or decrease of neural activity in the brain depending on whether a positive or negative mood exists. In order to understand better what is going on when people suffer a mood disorder, it becomes necessary to understand something about neurotransmitters. Neurotransmitters are the chemicals that neurons use to communicate with each other. Some are excitatory, some are inhibitory, and some can be both, depending on where they are acting. When neurons signal each other faster, thoughts and speech become accelerated, accompanied by increased activity, decreased need for sleep, increased sexual activity and a possible enhancement of the senses.

According to my research, and in general, making all the pieces fit using the simplest explanation, mania can be seen as the simple speeding up of the brain due to an increase of an excitatory neurotransmitter (glutamate). The delicate balance between an inhibitory (GABA) and excitatory (glutamate) neurotransmitter is slightly off. This slight increase in neural activity activates memories associated to positive emotional states, which then trick the brain to trigger automatically many positive emotions simultaneously. This produces a feeling of joy or even euphoria, generally accompanied by greater self-esteem. Based on this increased self-esteem, risky and bizarre behaviors become common, along with grandiose plans or illusions and dangerous behavior to self and others.

To complicate matters more, a deep relation exists between the major excitatory and inhibitory neurotransmitters in the brain: the latter (GABA) is made from the former (glutamate) using a few other chemicals. This means that any of these other chemicals could be the main culprit in producing mania or depression. This adds one more dimension to the specific condition, and perhaps manifestation, of the disease in each person. And, to make things more complicated, the endocrine system might also be involved.

The symptoms of mania (or depression) mix with each individual's personality, past experience and thoughts to create a unique medley that differs from person to person and even from day to day. Since each individual has their own memories, these will trigger the associated emotions. Memories associated to negative emotions become inaccessible. This period of excitation can last for as little as one day or as long as several weeks. Varying from person to person, the excess excitation will eventually produce a slight deficit of other neurotransmitters, as their normal replacement rate can't keep up with the speeded up consumption. When this happens, the brain slows down to rates slightly less than normal. We can think of it as a brain-crash. This is how depression is induced when individuals suffer manic depression. Eventually the neurotransmitters are brought back to normal levels and the person returns to normalcy.

In the case of unipolar depression, the brain slows down because the delicate balance between the inhibitory and excitatory neurotransmitter is off, but in the opposite direction of mania. In this case there is an excess of inhibitory activity that slows down the brain. The symptoms of depression in both cases are almost indistinguishable, but in the case of manic-depression, the depression was brought on by a diminution of other excitatory neurotransmitters, whereas in unipolar depression it is brought on by a slight increase in inhibitory activity. The difference between the depressive phase of manic depression or unipolar depression is a small and subtle one. Not surprisingly, the medication in each case should be different. In manic depression, the brain depleted its normal levels of neurotransmitters because of excess excitatory activity. In unipolar depression, the brain slowed down because of excess inhibitory action.

The slowed down brain activates memories associated with negative emotions, and these in turn trigger negative emotions simultaneously. These can include sadness, emptiness, fear, anxiety, diminished pleasure, worthlessness and excessive or inappropriate guilt. There can be persistent anger, an increased irritability or frustration as negative emotions shift quickly. Facial expressions and body posture will reflect these negative states, and might be accompanied by sleep disturbances, fatigue and a significant reduction of sexual activity. Positive emotions and memories become inaccessible.

Again, the thoughts and memories of each person will be uniquely linked to individually varying negative emotions; as a consequence, each person will express a depressed state differently. Our emotions lie at the center of the experience that most of us take for granted, the presence of a well defined, predictable and unique subjective entity we call the "self". When our emotions

become disordered, our sense of self comes into doubt; we have great difficulty perceiving the difference between health and illness.

Depression might be mild, moderate or severe. In cases of mild and moderate depression, the person might seem to be operating normally, but this appearance is only through great effort.

Next, I turned my attention to the study of schizophrenia as this was another mental disorder that figured disproportionately in suicide. On one occasion, when he was eighteen years-old, my son Mitchell was diagnosed as schizophrenic. Unfortunately, at the very beginning of his illness, this was one of the times he went alone to see a doctor. He did go alone, because, as usual, when you make a medical appointment precisely because there is a perceived emergency, our medical system is such, that they schedule you in spite of the emergency a few weeks later, because they are already filled for weeks with other emergencies. When it was time to go to the appointment, Mitchell seemed almost O.K., pretty close to his normal self, so we didn't think much of it. This visit would be simply a second opinion, perhaps to confirm a moderate depression that has passed. And so he went alone.

I can only imagine what Mitch told the psychiatrist based on the conversations I had with him at the time. Mitch had been trying to use his knowledge of physics and chemistry to attempt to explain what was happening to him. He would search for the origin of life, and then ask why life evolved the way it did, and ultimately why he might be in the situation he found himself. His imperfect knowledge of natural history could certainly lead down some strange speculative paths, which in some cases I thought I had dissuaded him to pursue. In hindsight, I am sure he felt misunderstood. But perhaps, because of the father-son relationship, he respectfully didn't argue with me. This is tragic, but totally understandable.

At the time, when this psychiatrist called me to offer her assistance in helping me deal with my son's schizophrenia, after momentarily loosing all my bearings, I wondered about her professional qualifications. She told me there was nothing she could do for my son, but she could help me. Even if she was right—and I completely disagreed with her diagnosis, and still do—you can't just tell somebody over the phone that their progeny has a chronic, incurable illness. That showed me a complete lack of understanding of human nature, and therefore she could be of little or no help to my son.

I can see clearly how Mitchell, over a one-hour consultation, without any of the vocabulary used in psychology or psychiatry at his disposal, would

use different physics or chemistry principles to try to explain his condition, perhaps adding his own interpretation of evolution and where mankind, and ultimately himself, fit within that scheme of things. I can see how an ignorant (of physics or chemistry or evolution or even philosophy) psychiatrist could interpret such a youthful, philosophical, and even brilliant effort to explain his own condition as having lost touch with reality; thus the diagnosis: Schizophrenia.

The essential feature of schizophrenia is a mixture of two or more characteristic signs and symptoms, both positive and negative. The positive symptoms are the following: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior. The negative symptoms are: affective flattening (no emotional response), alogia (poverty of speech) and avolition (inability to initiate and persist in goal-directed activities).

My research in regards to schizophrenia lead me to propose a more complicated imbalance between two neurotransmitters. More complicated because both these neurotransmitters can act in different ways: one can be excitatory and inhibitory, and the other one can have a fast or a slow effect. Also, the activity of each one affects the production of the other. In some cases increasing or decreasing the activity of one, depending on whether it is acting in an excitatory or inhibitory capacity. And the reciprocal action of the other can have a fast or a slow effect. The slow effect, in engineering terms would mean a time-lag. A time-lag can be crucial when the brain is trying to synchronize activities, particularly that of the attentional systems.

To understand schizophrenia it is useful to begin with delusions. First think of the part of the brain that puts things into a context, and then imagine what would happen if many things were erroneously tied into a particular context, where the context doesn't vary. As this happens, it encodes more and more events within the same context, thus more and more memories are related to the wrong context. A decrease of one particular neurotransmitter could cause this. Most delusions fall into certain categories, but, varying from individual to individual, not all.

In the case of Delusional Disorder, the delusions are non-bizarre, meaning that they could be conceivable in real life (e.g., being followed, poisoned, infected, loved at a distance, etc). Apart from the direct impact of the delusions, psychosocial functioning is more or less normal, and behavior, as long as it is consistent with the delusion, is not odd or bizarre. There can be mood episodes of brief duration compared to the delusions, but the particular train of thoughts brings these on during this imbalance in the brain.

The lack of the other neurotransmitter in the thalamus produces a temporal dissociation of the attentional systems, which produce mild visual or auditory hallucinations, as the brain loses the ability to differentiate between reality (sensory information is there during the creation of the present) and imagination (when sensory information is not present while remembering or imagining).

When the brain locks into a context, the sensory information is filtered through this context and is deformed accordingly. The delusions produced by this effect fall mostly into a few categories: Erotomaniac (another person is in love with one), Grandiose (having some great or unrecognized talent), Jealous (lover is unfaithful), Persecutory (being conspired against, followed, poisoned), Somatic (problems with bodily functions or odors from orifices), Mixed (various delusions together or alternating) and, of course, a category for unspecified (all other possibilities).

If we look at Schizophrenia as a worsening of Delusional Disorder, and we continue to decrease ever so slightly the activity of one neurotransmitter's activity the symptoms increase. Both the positive and negative symptoms can be explained in this manner. In the positive case the lack of coordination might manifest itself as the individual "slips off track" from one topic to another, answers to questions might be totally unrelated, and in some extreme cases speech can be so disorganized that it is incomprehensible. In the negative cases, the action of the same neurotransmitter affects other areas of the brain producing disorganized behavior such as childlike silliness or unpredictable agitation. There can be problems in goal-directed behavior, or the person might appear disheveled, or dressed in an unusual manner (wearing many coats or scarves on a hot day); there might be clearly inappropriate behavior (masturbating in public) or unpredictable and untriggered agitation (shouting or swearing).

This disorganization blocks activation of any associated emotions. The systems that so beautifully activate related emotions to certain thoughts are confused by the disorganized nature of the thoughts, and this is manifested as affective flattening. No emotions mean no emotive responses, and can clearly be seen by the person's face appearing immobile and unresponsive, with poor eye contact and reduced body language. Even though the person might smile occasionally, his or her range of emotional expressiveness is clearly diminished most of the time.

When the thalamus is slowed down enough, the attentional systems become disorganized and uncoordinated. This produces hallucinations. Hallucinations may occur in any sensory modality, but auditory hallucinations are by far

the most common. They are experienced as voices, familiar or unfamiliar, that are perceived as distinct from the hearer's thoughts. Two or more voices conversing with one another or maintaining a running commentary on the person's thoughts or behaviors is particularly characteristic.

I struggled to maintain my own sanity as I continued in complete solitude with my research. My wife, her family and my own family, carefully put up with my rambling about the brain. Some of my friends, subjected less often to my monologues, seemed slightly more receptive.

My son Freddy sought therapy after his brother's death, to deal with that, but more importantly to deal with life in a new perspective. At some point he told his therapist about my research on the brain and the book I was trying to publish. She was curious to read my brain research, and so I eagerly sent her a copy of my brain manuscript. She acknowledged that, "It is a remarkable and ambitious piece of work!" She suggested a few books to read that might help me. She questioned who my target audience is, and more revealing, she asked point blank, what was specifically new in my theory. This was very interesting, and would happen repeatedly with the few people that read my research at this time. Even though I was stretching it, particularly with my theory of echoes and attentional systems, my brain theory in a court of law would be considered at best circumstantial evidence. Yet, it all appeared familiar to the professional reader, as if encountered before. It became painfully obvious to me that a trained therapist mostly saw a well researched document on the brain with nothing new. This was probably due to the deep interrelationships I wove between my theory of the echoes and the attentional systems with established knowledge of memories and emotions. I decided at this point to highlight in yellow my own views and speculations to emphasize my own theories when I deviated from established facts or the opinions of others.

When I finally self-published my other book *A Thousand Moments of Solitude*, in 2006, I sent her a copy. She basically responded in an e-mail, "It is a beautiful and touching work. The way you weave personal history with world history, science and emotion is artful." She ended with, "I am glad the Sanchez' have not given up on the profession."

However, as I continued struggling with my brain theory and my "suicide book," as I called it, whenever I talked to a friend who might be remotely interested in the subject, such as a Ph. D. in ecology, a psychologist or cardiologist or general doctor, at best I got words of encouragement, a few leads to other books or articles, or perhaps the e-mail or address of another person whom I might approach.

I realized I had bits and pieces, a sort of disjointed theory, that even if it made sense to me, it didn't to others. I needed to develop a whole picture of the brain if anyone was going to listen. I had some elements in my theory to explain suicide: I suspected a loss of self as being a main factor, coupled with hopelessness, helplessness, emotional torture, and the phobothymic switch (switches fleeing to fighting, fear to anger) in case of panic attacks. I was getting closer. But if losing the sense of self was part of the problem, I would need to explain how the sense of self was generated in the first place. This was the next challenge. I did have some clues as to the road to follow: the increase or decrease of activity on one side of the brain with respect to the other when emotions were present and how the brain returns to neutral calm; and the speeding up and slowing down of the brain during moods.

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In hindsight, I must advise anyone who is going through a depression or has a loved one suffering from a depression, that on average, the knowledge of some in the psychiatric community is sketchy, and at best, even the finest doctors don't know all the details. If some treatment is not working, another opinion should be sought. Since the present therapies and the medications available deal with the issues peripherally, every stone should be turned; every treatment, every therapy, every medication should be tried until a solution is found. Keep in mind that precisely, because medications are addressing some neurotransmitters, but not necessarily the real culprits, what works in one case, doesn't work in another. Even when there is no danger of suicide, the suffering must be relieved! Love, friendship, loyalty, are not enough, but must be given continuously, as these can be the difference between life and death.

If a treatment produces an improvement in the condition, it is worthwhile to pursue tweaking it by trial and error. In this I have to agree with the psychiatrists, but only if there is some visible change for the better. In general terms, the best results are obtained by individually fine-tuning a cocktail of medications and managing the side effects along with therapy. *This requires constant supervision, and revisions.* This reflects how little we really know.

The suffering in depression is beyond words, beyond metaphors. Very talented writers who have tried to describe what depression is like complain that there is no terminology, so they use metaphors that at best touch only the surface. Depression is a very complex state, unrelated to the normal experience of people that haven't suffered through it. Depression is a very

disorganized state, emotionally and intellectually. Here are some examples of adjectives that, perhaps, convey the sense of what depression is like, as well as the individual differences that depression can manifest.⁸

In some people, depression manifests a sense of disconnectedness, i.e., the self is a fiction, reality becomes ghostly, I felt like an outline of a person, like a ghost, a shadow, emptying of the soul, and think ceaselessly of oblivion.

Others describe depression as a confluence of bad feelings: loneliest, I thought I would never recover, or die, pounding around, utterly confounding, immensely disturbing, a fidgety restlessness, intolerable grief, agony reached a deafening pitch, panicky, crying inconsolably, died of sorrow and dangerous.

Also common to many that try to describe depression, is the use of some of the physical symptoms that accompany negative feelings, i.e., the dread of the clammy chill, a knot in my throat, awful heaviness, sadness in my cheeks, and drained rapidly.

Frequently, many describe depression as a form of exhausted state: I stayed quiet, stalled, throttled back, deep trough, weary and fatigued, desperate prolonged, insidious, and a relentless torture.

My son Mitch spoke “of a blackness in his head.” I found allusions to the darkness very often, i.e., skittering blackness, downwards into hell’s black depths, and darkness crashed through the dread.

Intellectual confusion is expressed as follows: aggrieved, pitifully small, ramshackle structure, memories are a huge minefield, exaggerated ills and threats, and a cage without a key.

Depression is akin to an unspeakable torment where the individuals lose touch with themselves. Because depression manifests itself differently from person to person, and can be different from one depressed episode to the next, it is confusing to the sufferer, and it is hard to diagnose correctly.

Mitchell didn’t have the words or the experience to help us understand, but what amazes me is that the few doctors who did see him in the beginning, didn’t try to convey to us what his state could mean; it is almost unforgivable

⁸ Some of these adjectives were picked from the following sources:

Kay Redfield Jamison, *Night Falls Fast*.

Kay Redfield Jamison, *An Unquiet Mind*.

William Styron, *Darkness Visible*.

Peter C. Whybrow, *A Mood Apart*.

Neil Casey, Editor, *Unholy Ghost*.

that professionals that deal with and make a living trying to treat mental illness would explain so little to my wife and me.

This terrible state that is manifested in seemingly different ways by each individual, is in reality a slow loss of the sense of self. This process varies because each one of us has individual memories and feelings. This awful state is so important to understanding suicide I coined the term *idiozimia* (from the Greek *idios*=self and *zimia*=loss). A partial loss of self, or the beginning of the process should be clearly labeled; I use the word *archidiozimia* (from the Greek *archi*=beginning).

When my cousin Luis's wife, Gina, whose mother suffers from manic depression, heard about Mitch's problem, she recommended we see her doctor in Mexico City. We were planning to go to Acapulco for Spring break with Mitch, so I made an appointment on a Monday in April 1999. Mitchell arrived a couple of days after us on a Saturday. I told him about the appointment, and he said it was a complete waste of time, that he was just fine. He was feeling great and went out drinking and dancing with his cousins late into the night.

The next day, Sunday, he had another full-blown episode like the one he had in the parking lot in Lake Tahoe a couple of months before. My sister Minnie had suffered from anxiety attacks, and recently had found a doctor who controlled her attacks with medication. One of the medications was Tagamil. She gave Mitch one pill and it seemed to help him. He calmed down enough to be close to normal. Needless to say, the next morning, Mitch and I flew to Mexico City to keep the appointment I had made with the psychiatrist. He was very good.

He slowly got Mitch talking about his "problems." The psychiatrist was not digging into the past to look for the life-shattering events. He wanted to know about Mitch's present state. Mitch recounted his fears of braces, and now the pimples, and how he particularly didn't like to look at himself in the mirror. The psychiatrist was able to gently coax out of him some of the issues that he was embarrassed to talk about.

His diagnosis was Moderate Depression With Occasional Panic Attacks. He explained to us that when an individual falls into a depressed state, he tries, in a rational sense, to find the cause of this depression. Invariably a cause will not be found, because there isn't one, and one will be invented: the braces, the pimples, the red hair or whatever will be found as a "reason" for the depression. These "reasons" are not obsessions; they are rational explanations that one eventually believes to be true. When the person discovers that the depression continues, even in the face of the removal of the reason, a new reason is found

to explain the depression. Part of therapy is to keep the patient focused on the depression and to avoid inventing a reason for it. And, he continued, depression occasionally is accompanied by anxiety or panic attacks. And panic attacks are what Mitch had suffered a few times (maybe four up to that time). He recommended *therapy accompanied by medication under close supervision*.

The psychiatrist also mentioned that just as the depression appeared suddenly, sometimes, just as suddenly, it simply goes away, occasionally to never come back. He also said that the younger one is the more probable that the depression will be permanently cured. He also added that in some cases it goes away for years and then returns.

He cautioned Mitch about drinking; hangovers are a state in which it is easier to trigger a Panic Attack or a Depression. He told us that all the leading scientific advances in the field were being made in the United States, and that we should be able to get very competent help in Santa Barbara. Once Mitch felt that his condition was known, as opposed to some incomprehensible, unknown emotional state, and that it was curable, he seemed to improve remarkably. And I mean in hours, not days. I felt that, at least we had a label for his condition, and a plan to pursue.

But perhaps what helped the most was the emotional involvement and exchange we had in the next few hours. My friend Mario, who lives in Cuernavaca, forty-five minutes from Mexico City, picked us up at the bus station and drove us to Acapulco. After a couple of hours talking in the car, Mitch started to be his usual self, telling us stories of Sidartha and other books by Herman Hesse. Mario, whose wife had suffered from bad acne, was familiar with many of the products to improve facial skin. We stopped at the first pharmacy in Acapulco, and got Mitch all he needed to get rid of the few pimples he had. This would take care of any pimple problem, real or imagined. When we arrived in Acapulco that night, Mitch was under pimple treatment and looking and acting like his usual self. A week later he returned to Santa Barbara.

When we offered to go to Santa Barbara to help him find a good doctor, he informed us that he had already seen one at the University and that, "Mom, I'm fine. Don't worry! They say I am O.K. If I'm not, for me to go in and see them. It's as simple as that." Spring went by and Mitch reported he was doing great. That summer he went to Europe with Jeff and Julie, dear friends from high school. He seemed fine to them. He saw his girl friend Katie in Italy; she and her family also felt he was fine.

Katie's mom told me, after Mitch's death, that in Europe she had sensed that Mitch didn't like to see his reflection in the mirror, but she considered this just a simple eccentricity. I thought back to Mitch's first interview with

the psychiatrist in Mexico City. “Beware of madness in the family,” taunted me. I hadn’t picked up on this at all.

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In the summer of 1999, while Mitch was in Europe, he tried to fax us the following letter. The pages were written in a hard cover, bound notebook; he ripped them out, tried to glue them so they would transmit continuously, like a roll. We never received them. After his death, going through his things, I found his letter:

Dear family;

I just want to inform that my time spent in Europe has been phenomenal; the first five days in Paris by themselves are unforgettable. We saw the Eiffel tower as it crawled towards the sky. We ran through the city like three scoundrels, jumped over ticket meters, walked quickly with thousands of workers on their routes to and from work. We stayed in a small room that was red like the devil and had the scent of old people. Although there was no toilet the shower and sink worked quite well. While flying over London I saw the beautiful gardens, magnificently kept and green as can be. Paris reminds me so much of New York City and I’m looking forward to going there. I love the French language even though the only words I know are merci and pardon.

All three of us have stayed up late many nights and spoken of our dreams. I feel as though the entire world lies before me, I’ve traveled across fields and long stretches of dark forest. Beyond these fields and forests might be farms and mills, and in a way I sense that Europe can be for me, wide and enchanting, beautiful, ready to be explored. I am no longer a boy that sees the world through television. The towns of the countryside seem a reality; I feel I am no longer just a stranger to these places with difficult pronunciations. Now, within me are places with a face, places with times and places that I can drink of all of it. Their sky is my sky; its weather is my weather. I fell small in this large country and I love its people that make me feel like I belong.

In Paris we walked all the Champs Elyses. We did some shows and also, we went to two museums with beautiful sculptures of the human body and incredible ancient artifacts from the time of the Egyptians. In another place we saw many cannons lying around. The side of one had a woman’s face with the French flag fluttering above. But the

French can be very mean at tourists. I mean that they snap and bark when they find out you speak only English. I feel so free here, my mind is filled with so many beautiful pictures.

We went to the Picasso Museum. We saw radical art and I bought a couple of prints. Afterwards, we walked outside and lay on the peaceful grass lawn. I saw some kids playing ping-pong and I decided to join them. I played with them for many hours, lost in their laughter and happiness. I taught them the ping-pong rules I knew from Mexico.

Under the willow trees, the wind blowing gently and saw myself in it again, laughing as a golden child, blond hair swaying in the breeze. We went out that night and met some cute girls from North Carolina. I told great stories of Sidartha and Narcissus and Goldmund. While flirting with the girls I felt important, as if I had something important to say. Jeff and I have had many philosophical, scientific and literary conversations. Julie and I have been talking about possibly moving to Paris when we get older. Over her, there is a great connection amongst all people. I even saw some skateboarders in Paris, even though they wouldn't let me use their boards.

And I've learned so much about myself on this trip. I've learned that friends and family are really essentially the only thing that can save us from ourselves. They inspire us, reflect in us the beauty, which we can't see, and make us realize the simplicity and beauty of life.

While traveling from Paris to Amsterdam, Nick and I put our resources together and dragged behind us a groggy group of hung-over travelers. Nick spoke French with the train people while I read and organized the transactions. On the way to Amsterdam oceans of green vegetation, gleaming skies glazed with white clouds, and the phone poles passed by quickly. In Amsterdam, Jeff and I spent one night by ourselves in a comfy hostel. We walked around town; saw porno shops on every corner, coffee stores that sell marijuana, strangers who casually try to sell you cocaine, heroin and even crack. Even with all the filth and leniency of the city we were able to find culture and beauty. I started reading a lot in that city. I also played Nick's guitar and we all sang. Julie stayed in Amsterdam and Jeff and I continued our journey to Germany. Fourteen hours and we were there. We struggled to the hotel and went out to see some ancient towers and structures. We saw the technological museum in Munich, which had just about everything that dad and Freddy would love to see. It even brought on some nostalgic feeling from my M.I.T. days. We walked around the

beer gardens and finally settled down for a refreshing beer and some home cooked German sausages.

I miss you guys tons and can't wait to see you in New York and how incomprehensible everything is and actually beautiful, although it is also sad. I feel as though I know all these things yet I know nothing. One lives and runs about the earth, rides through forests, and certain things seem so promising and challenging and nostalgic: green pines slipping away from Germany to Switzerland, bright grassy fields, or sun light creeping in through withered leaves of a dense forest.

Now only the life within me is real, the powerful beating of my heart, the nostalgic sting of longing, the joys and fears of my dreams. It is to them that I belong. It is to them that I have abandoned myself. I have only listened to the rivers and voices inside myself which draw me away into beautiful countries where one can see a beautiful Swiss lake shimmering in the sunset while laughing with a new friend, sleep in a park after spending a fun filled night of skateboarding, laughing and talking with Swiss kids.

And looking back my last months of University feel like a roof that I was standing under the same way as a hesitant wanderer who is caught in the rain who stops under any roof, a tree, just to wait, for fear of the unknown.

Italy is so beautiful. It is so full of color, art, architecture; just everything. Venice has been kind to us. Jeff and I had a cherry red bottle of wine last night with our prawn pizza and red sauce lasagna. We ran around the river-infested city a little tipsy and talking with just about any stranger with a bit of sex appeal. I think I've given a pretty good summary although I've only scratched the surface.

In conclusion: At times it seems something never seen yet, long desired is about to happen, that a veil will drop before everything, that some great explosion or self realization will take place; but then it passes and nothing happens, and the riddle remains unsolved, the secret spell unbroken, and in the end grow old and look wise like dad, cunning like Freddy, or powerful and loving like mom and still know nothing and maybe are still waiting and listening.

*Love,
Mitchell*

This is our last day in Venice. We are on our way to Florence. I will call when I get there.

I continued with my brain research: once an emotional habit is well learned, the brain system involved in expressing it becomes simpler. According to my echo theory, once learned, the procedure is transferred to the cortex and stored as an echo. Then the echo can trigger that emotion automatically. With an expanded cortex, more habits or emotions can be stored and enacted. It is extremely important to regulate emotions, to turn them on or off appropriately. There are several mechanisms to achieve this.

The brain communicates its internal emotional state to other brains using specific universally recognizable facial movements, gestures, body postures and the prosody of speech. In social animals this is of extreme importance. The emotional displays reflect in very subtle ways the emotional states of the brain; and an emotional transfer is achieved when properly read. And more interestingly, producing the exact facial expression of an emotion generates the actual emotion. This has big therapeutic potential.

As mentioned, recreating an emotional facial expression generates the emotion. For example, raising the inner eyebrows, and raising the cheeks, and lowering of the corner of the lips, will be sufficient to create marked changes in the autonomic system. This generates sadness and anguish. If you lower the brows, and raise the upper eyelid, and narrow the eyelids, and press the lips together, you generate anger. The heartbeat will go up ten to twelve beats and the hands will get hot. By simply learning how to create the facial expressions that correspond to stressful emotions as anger, sadness and fear produce the corresponding physiological changes.⁹

So called mirror neurons (because they copy or mimic), fire when you move your hand as well as when you just watch someone else move their hand, also have counterparts that not only fire when you stick your tongue out or purse your lips, but also when you see someone else do it, even though you have never seen your own lips or tongue.¹⁰ The mirror neurons guide imaginary replication of other's expressions, and through the association of emotion to motor commands linked to emotional expressions, trigger subtle emotional reactions.

Emotions do not only elicit specific, related memories and behaviors, but also, through the external expression of these emotions, communicate these emotional changes to others. What is known in psychotherapy as transference

⁹ Malcolm Gladwell, *Blink*.

¹⁰ V. S. Ramachandran, *A Brief Tour of Human Consciousness*.

and countertransference is a continuous process of emotional information transfer between individuals. Species-specific, emotional, expressive displays in the sender activate the attentional systems of the receiver, thus becoming emotionally competent stimulus. As such, the expressive displays automatically trigger the same emotion in the receiver. When the brain of the receiver perceives the emotion, the meaning of the emotional display is felt directly. The attentional systems hover, shifting from the external sensory stimuli (the expressive displays) to the internal emerging bodily sensations (the emotions generated as an automatic response). Thus the emotional communication achieves a somatic transference. In a similar fashion, there is a countertransference of emotional information, which confirms that the message was received. These reactions are very fast, occurring in microseconds, reflecting the physical emotional changes.

There are several emotional regulation modes: one is a regulation via two or more emotionally interacting individuals, the emotional information transfer and countertransfer; another, which we already mentioned, is an interactive regulation through the external changing conditions which change the internal emotional state; and lastly, is a self-regulatory process, based on feedback and automatic tendencies to reach a neutral state of calmness.

Without going into many details and keeping it simple, there is a circuit in the center of the brain that monitors and regulates the activity of the whole brain through several feedback loops in each hemisphere, along with connections between both sides of the brain. The primary function of this circuit is to try to balance activity in both hemispheres, continuously attempting to restore neutral calmness. This circuit is important enough to deserve its own name, the isorropic circuit (from the Greek, *isorropia*=balance). In essence, the isorropic circuit's output goes to the brain stem and affects most all the principal neurotransmitter systems, which can alter, not only the activity in one hemisphere, but in the whole brain.

Try to imagine that the entire brain's activity could be represented by a single point. Let's call it the isorropic attractor. Now, think of neutral calm to be represented by a point in the center of a piece of paper. If we could draw each emotion as a spoke radiating from this center, then each emotion could be represented by a point on the spokes; the more intense the emotion, the farther away from neutral calm (the center). We could draw the positive emotions as radiating to the right and the negative emotions radiating to the left. Whenever the brain's activity drifted along any of these emotional spokes, either to the left or to the right, the isorropic circuit's function would be to bring it back to neutral calm as quickly as possible.

Intense emotions would be far out from the center, and to switch to another emotion it becomes proportionately difficult as the distance between each spoke increases as you move away from the center that represents neutral calm. The closer to the center, the easier to shift from one emotion to another, because there is less change, chemically and otherwise. The brain's state changes ever so slightly close to neutral calm (the center). The farther out (the more intense the emotion) the more difficult to switch from one emotion to another, to change from one state to another.

The more complex a brain is, the harder it is to settle on neutral calm. In the case of humans, it becomes extremely difficult to reach perfect, neutral calm. Some philosophers have called this state "the center of the self." Others have called it the "true essence." Franz Kafka, the Austrian philosopher and poet, recommended, perhaps as a means to reach neutral calmness, "You need not leave your room. Remain sitting at your table and listen. You need not even listen, simply wait. You need not even wait, just learn to become quiet, and still, and solitary. The world will freely offer itself to you to be unmasked. It has no choice; it will roll in ecstasy at your feet."¹¹

Emotions are related to memories, and the wider the spectrum of emotional responses that can be triggered, the more intense the sense of self is felt. Conversely, the narrower the spectrum, the less intense the sense of self is perceived. In other words, the closer to neutral calm, the more intense the sense of self is perceived. This translates into a nonverbal knowledge that many memories can be quickly activated because the brain can flutter, ever so slightly from emotion to emotion, changing from moment to moment the chemical milieu of the body and brain. Normally, the brain is changing, second by second, the emotional internal landscape in subtle ways that are almost imperceptible.

When the isorropic circuit's attractor is wandering on the positive emotional side, the brain perceives this as a high degree of self-esteem. If it is wandering on the negative emotional side, the degree of self-esteem is low. When the isorropic circuit is close to neutral calmness, autobiographical memories can be more easily activated because myriad emotions associated (through handshakes) with all the memories can be quickly triggered.

When the isorropic attractor is far from neutral calm, short term, working and explicit memories can be affected, primarily because thalamic control of the attentional systems can be disrupted. In contrast, semantic, source and

¹¹ Deepak Chopra, *The Seven Spiritual Laws of Success*. 1994.

procedural memory, because of a low or inexistent relation to emotions can still be activated even when the brain's activity is far from neutral calmness.

When the brain's activity is pushed outside the chemical ranges that permit homeostatic balance, the sense of self becomes distorted; the spectrum of emotions that can be potentially generated, thus the memories that can be activated, are greatly diminished and the behavioral responses limited. The limited choice of behaviors, imposed by stressful conditions, under a wide array of circumstances, can still generate a correct response. But the longer the stressful conditions prevail, the smaller the number of responses that can be activated and the less the probability that the correct response will be generated.

In extreme cases, when the brain is pushed far enough from the range of homeostatic balance, it will no longer be able to perceive a sense of self; the organism can no longer adapt. The sense of self is an indirect measure of the organism's capacity to adapt.

There are other aspects to the sense of self superimposed on the activity of the isorropic circuit. When our attentional systems activate biographical memories, in spite of the diversity of sensory signals, memories, beliefs and thoughts, a coherent sense of self emerges. In this way the brain constructs continuity and a unity of the self.

But still, there is more to the self; there exists a sense of embodiment, a feeling that we are bonded to our bodies. And beyond this, the self is empowered with a sense of agency or free will that allows us to feel we can direct our bodies and our actions. These different aspects of the self are embedded in an ever-changing emotional milieu, which as we have seen activates relevant memories. Ultimately, the activity of the attentional systems permits us to reflect, of becoming aware of our self with all its subtleties. The attentional systems, somatosensory, visual and auditory (perhaps olfactory and gustatory as well), along with their memory systems, are the circuits that generate the sense of self and our perception of consciousness. The self has many sides to it and as a result any of these different aspects can be individually disturbed.

I had struggled daily for about eighteen months with my writing and research. I desperately needed some feedback. After I had put together some of the elements regarding the regulation of emotions and the isorropic circuit, I felt that I now had a strong enough model of the brain to explain many more things, other than suicide. I continued writing my suicide book and expanding my brain research.

I tried to get some input from some suicide experts. I sent a letter and later copies of my two manuscripts to Kay R. Jamison. About six months

later, I received a kind letter from her, apologizing and explaining that she is too busy to read any of this.

At this point I felt it was important to share my investigations and speculations on the brain with someone with credentials that would give me some feedback or criticism. I felt that perhaps a renowned investigator and neurologist at Berkley, Walter Freeman could be the man. I knew about him because I had used some of his research in my brain theory. He answered me with a beautifully written e-mail, where he sympathized with my tragic loss and so on. But essentially, in a very polite way, he excused himself as not being a brain theorist, explaining that, "My own efforts are rather narrowly focused on the elementary aspects of normal dynamics in perception by small mammals, so there is little that I can contribute to the broad canvas." And he finished, "I wish you success in finding like-minded theorists with whom you can share your insights." Well that was that. What did I expect?

Another friend of mine, an osteopathic doctor, recommended that I send my brain theory to Viola Frymann, a renowned osteopath. In it, suicide is just a few pages, a small chapter of brain theory. If she could get interested in this she would be a great force within the osteopathic community. After reading some parts of my brain theory and scanning through the manuscript, she sent me a nice letter. She thanked me, "for the opportunity to peruse your remarkable document. It does indeed describe 'a new theory of the brain.'" Referring to all the minute detail I recognized and described explicitly in relation to the motor, visual, memory, attention, and so on, circuits and systems, she commented, "I find something missing as I consider the whole person, the whole patient. There is no soul, no spiritual being." She ended with, "I hope and pray that one day you may discover the spiritual being within, within yourself and within every patient that crosses your path. Then you will have an ever greater reverence and appreciation for the physical mechanism you have so ably described, and a new awareness of the real person, the spiritual being within."

I responded thanking her for her comments. In part I stated, "I am very grateful that you have pointed out that I have not mentioned the whole person. I will make sure to add in no uncertain terms that, 'The whole (brain) adds up to much more than the sum of its parts (or circuits). The continuous interaction of all these multiple circuits has a multiplicative amplifying effect, which we are just beginning to understand.'

"I am striving, every day, to understand more of others and myself. I can only add that the more I study, understand and reflect on who we are, the more I stand in awe and reverence of what we, as human beings, are."

I felt painfully isolated, misunderstood, but nevertheless continued trodding along with my research because I felt vindicated, as my brain model could be used to explain easily other problems or abilities. At this point, my model was powerful enough I could tackle other problems such as synesthesia and catatonia. Slowly, over the next couple of years, I tackled personality disorders, autism and savant memory.

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After Mitchell went off to the University of California at Santa Barbara, my wife and I were empty nesters. Now we could travel freely. We decide to open a retail store on Madison Avenue in New York City. We opened it on the Friday after Thanksgiving in 1998. We needed to spend several months in New York City while the operation got up an running. We rented an apartment on the East Side and invited my mother-in-law and her husband, as well as our two sons, Freddy and Mitch to spend Christmas with us in New York. A couple of days before Christmas we had dinner with my cousin Carol and her family in a restaurant on West 58th street. While we were in the restaurant a huge snow storm broke out. When we came out, three or four inches of snow were already threatening to paralyze the city. Taxis were hard to come by, so to make it easier for everyone and to save one taxi ride, I proposed that Freddy, Mitch and I would walk home to enjoy the storm.

We were one block away from Central Park, so I suggested we walk through the park. Freddy wondered if it was dangerous, as night had fallen. I thought we could outrun any potential threat. Mitch pointed out that the snowfall was so heavy it was almost a whiteout. Who could even see us? As we walked through the park in the midst of this storm, I could see my two sons enjoying themselves enormously. We came across one adventuresome couple seeking romance and greeted them laughing. If anyone saw us, who could imagine that a little over a year before, Mitch had suffered a panic attack and almost hadn't been able to graduate from high-school.

I was thinking about what to do to make this moment more memorable, when the Tavern on the Green popped into my head. That was a sight to see, especially at night, and particularly as you approached it from the park. All the trees around the famous restaurant were wrapped with thousands of lights creating a fantastic effect. I remembered that it was located on the West Side of the park.

"I know what we can do! Let's go have a drink at Tavern on the Green. Keep your eyes open. Somewhere on our left, we should be able to see many

trees lit up with thousands of lights all over their trunks and branches.” I said enthusiastically.

“Are you sure we can find it?” Freddy asked, referring to the almost whiteout conditions of the storm.

“Are you sure it’s on the right?” Mitch asked, referring to the few drinks I had already consumed during dinner.

“The lights are very bright. There are many trees. It is spectacular. I’m sure we can find it. Lets go,” I said, pointing to a left fork in the path so we would be closer to the West Side.

We ran into another adventuresome couple. Their laughter was the only sound as the snow absorbed all the city’s noise and lights. As we continued walking, my two sons looked at each other and without a word pulled their collars up to avoid snow falling down the back of their necks. I took this to be a sign of doubt and resignation. I started having doubts about whether we could find the Tavern on the Green, when suddenly, through the falling snow, the faint green outline of a few tall trees appeared on our left. Hundreds of tiny green lights were wrapped around the main trunk and branches of dozens of trees creating the effect of ghostly, luminous trees. Mitch looked at Freddy and laughed.

“Look at that. It’s incredible!”

Shortly after we were sitting at the bar. There was nobody there, we had the place all to ourselves. The waitress came by and I ordered, “Three Bacardi with coke.”

“I’m sorry,” she said. “But I need to see their I.D.’s,” as she motioned to Freddy and Mitch with her head.

I looked into her eyes trying to read her. She looked straight back.

“These are my two sons. I’ve come from far away to New York.” The waitress still looked into my eyes trying to tell me that whatever I said was useless. I raised my voice for emphasis, “And I walked a long distance through the Park, in this storm, to have a drink with them.” I moved my face closer to hers. I looked her in the eye and added, as I dropped the tone of my voice indicating there was no room for argument, “There is no one here but us,” implying that nobody could check what she did and added forcefully, “So forget about the I.D.s and bring us our drinks!”

“Calm down, dad. It’s not a big deal,” Freddy interjected, making sure we continued to have a good time, fearing that I would get up and do something to the waitress.

She forced a smile, thought about it, and left to fetch the drinks. “It’ll be just a moment.”

“Yeah, that’s right, Dad,” said Mitch, and added with a huge grin, “It is not a big deal. We both have fake I.D.’s”

I have many beautiful memories of my sons. But for some reason, this other time stands out as the best day I ever had with Mitch, perhaps because it stands in such contrast with a few days before when he had suffered a panic attack and we had gone to Mexico City to see a psychiatrist.

During spring break in 1999, my wife and I went to Acapulco to the Second Sanchez Open. We were staying as guests of my sister Minnie and my brother-in-law Pepe. Mitch’s spring break coincided with Easter and he flew down from Santa Barbara to join us for the week.

While there, Pepe’s sister and her husband Rafael invited us out to spend the day at their house by the Lagoon of Tres Palos. Rafael is into everything aquatic: motor boat, skis, slalom, wake board, banana. We were a group of six adults, two of my sisters and their husbands, my wife and me, and four of our children—Mitchell, Pepo, Francesca and Rogelio.

That morning, Mitch and I, over breakfast, discussed his relationship with his girl friend, his surfing, school and his future in general. The phantom of his last panic attack floated in the background of my mind. But he was obviously well, in good spirits and enjoying himself.

Rafael had invited other guests for the day, couples slightly younger than we with slightly younger children, probably ranging in ages from ten to seventeen. In all they were another six adults and nine children and teenagers. After introductions and greetings, Rafael asked, “Who wants to ski?”

There were surprisingly few takers. Rafael Jr., seventeen, was one of them. He, like his father, loves all things aquatic, including driving the motorboat. As it turned out, Rogelio, my other brother-in-law, and my wife Pat, the two Rafafs, and Mitch and I got on the boat. First Rafael Jr. skied, and dazzled us with his expert slaloming; followed by Pat, who after a couple of falls managed to get up and do her usual ski-a-little-bit-but-good slalom routine.

Mitch turned to Rafael Jr. who was driving the boat and asked, “Do you have a wake board?”

“We sure do. Have you ever done it? It is not too difficult.”

“I’ve done it a couple of times, but I’m a very good skateboarder and snow boarder. I think I’ll be fine. It’s pretty similar.”

“Suit yourself. The wake board is in there,” Rafael Jr. said, pointing to a seat in the middle of the boat that lifted up and served as storage space.

I was a little bit worried that Mitch might have some problems with the wake board, as this was something relatively new for him. I had seen him snowboarding, jumping and turning, and even somersaulting through the air, but I wasn't sure how much this could translate to a wake board being pulled by a motorboat. He, however, confidently jumped into the water and gave us the signal that he was ready to be towed.

"Keep the board between you and the boat. Flex your legs slowly as you start to stand up. Don't let the boat pull you head over," Rafael Sr. yelled out as last minute instructions.

The boat roared to life. The wake board swiveled a little bit from side to side. I held my breath. Mitch stood up on the wake board, and proceeded to move up and down it, as if testing the stability of the board. I watched amused. He smiled. Then he turned the wake board, jumped the wake of the boat and made a complete 360-degree turn in mid air, landed fine, turned and jumped again. He was seven or eight feet up in the air. It was like watching a magician perform trick after trick: high jumps, 180 degree turns with backwards landings, backward jumps with forward landings, another 360.

Rogelio jokingly told me to close my mouth. I was speechless. Time seemed suspended. Then, Mitch attempted a somersault, and even though he landed standing on the wake board, he was unable to stay on it and fell with a big splash into the water.

We turned the boat around to go pick him up. He had made it all look so simple. I asked if I could try the wake board. At least, hopefully, I would be able to stand up, turn and make an ass of myself in my first jump. As it turned out, I couldn't even make a turn or get enough speed to jump the wake.

Later we decided to go in the boat to a restaurant at the end of the lagoon. There the lagoon normally breaches a sand bar and flows into the Pacific Ocean. Lunch at this place meant fresh fish and shrimp and occasionally baby shark.

The problem was that we were 17 grownups, if we considered our older children, and eight kids. Rafael determined that we would need at least three people to ride in a rubber raft pulled by the motorboat so we could all go. I thought that many of the kids would volunteer to ride in the raft, but none seemed willing. So Pepe, Mitch and I volunteered. Pepe filled two Tequila shot glasses for our boat ride. He packed his cigarettes and matches in his breast pocket, and motioned to Mitch and me to follow. We boarded the rubber dinghy and sat down with our feet hanging over the edge. Pepe passed me my tequila shot. Everyone else boarded the boat. As soon as the boat began to move, the dinghy started skipping and jumping over the water. My tequila

glass filled with water before I could take my first sip, Mitch was sopping wet, and Pepe grinned madly as we bounced on the wake of the boat.

I can clearly remember my sisters Pelusa and Minnie waving at us and with Rafael, Rogelio and Cecilia, Pepe's sister, laughing at our antics. We guffawed with each unexpected lurch. Over the noise of the engine, Mitch yelled at me, "How do you always manage to have such a good time?"

"It is just a question of having good friends," I replied at the top of my lungs, trying to make myself heard over the boat's engine, the slapping of the rubber raft as it was buffeted by the boat's wake and everyone's laughter. I could see him smiling.

After a brief pause he yelled back, "I want you to know that this day has been perfect. Thank you."

"Wait till you see the waves where we are going, there is still more to come."

As we approached the sand bar, the boat slowed down, then stopped. "Just look at the beauty of this place," Mitch said, "the vegetation, the ducks, and here I am with you and Uncle Pepe, your sisters and Uncle Rogelio. I can't believe it. The three of us acting like little kids."

As it was the end of the dry season, the lagoon was not emptying out into the Pacific. We jumped out of the boat and waded up the steep sand dune. We could hear the deafening roar of the waves pounding on the other side. When we reached the top of the dune, we could see the Pacific Ocean. The beach was steep and, in typical fashion for beaches just north of Acapulco, the waves were big, almost fifteen footers, and breaking thunderously very close to the shore.

As one wave broke and the white foam came pounding towards the beach, I timed my move, ran down the beach and dove into the oncoming surf. The surf was so powerful that, as I had planned, it easily stopped my forward dive and drove me backwards toward the beach. As the surf lost its power, I simply stood up. As I walked back up the beach, Mitch came running, and dove into the surf imitating my move perfectly. Then he walked up to me and gave me a high five. Together we both raced in and repeated our move.

Watching us, Pepe couldn't resist running down the beach and diving into the surf. The only problem was his timing; he dove into the retreating surf, which sucked him in. The next wave broke on his back. I told Mitch to get ready; we might need to go in and get his uncle out.

We waited for Pepe to wave for assistance. I yelled at him to ride the next wave out. It pounded him into the sand. Mitch ran in to grab him; I followed close behind. Mitch managed to get a hold of Pepe's hand, and helped him regain his footing as the water rushed back into the ocean. Mitch extended

his hand and I grabbed it, and between the two of us we managed to pull Pepe out.

After lunch and a swim, Mitch sat with his two uncles, Pepe and Rogelio, and me in a shallow place in the lagoon. We drank tequila and talked through the afternoon. Eventually, it was time to head home. Fortunately, for the ride back we convinced a group of the teenagers to ride in the rubber dinghy. Mitch and I sat at the back with Rafael our host. Rafael Jr. piloted the boat.

At the dock. Mitch jumped out and yelled, "It's zero hour. Run," leading the way quickly up the hill, as swarms of mosquitoes came alive as the sun was setting. At Rafael's house, attracted by the light inside, mosquitoes matted against the window screens. We sat inside looking out, as every window screen was carpeted with a thick, fluid, black layer of crawling mosquitoes, giving us a feeling of unreality.

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I was convinced I had stumbled on some very important insights into how the brain functions and why suicide happens. I felt that a summary of my brain theory should be the major reason for my book, *A Thousand Moments of Solitude*. I recruited Elliot Roberts to help me give the book form and assist in getting it ready for publishing. I slowly, over months, came to realize the book was too ambitious, but I still am convinced it is a very important book. I sent material to over fifty literary agents, hoping to get published. The answers I received varied tremendously, ranging from pre-printed thank-you, but-of-no-interest-to-us, good-luck, to detailed personal moving letters explaining the complexities of the publishing business, or commiserating with how terrible the loss of my son is. However, all the answers had one thing in common: No.

I was prepared for rejection, and I knew that authors, like actors or singers need a break, or need to be "discovered," but I also feel that perseverance is part of the deal. So I persevered until I felt that self-publishing was the way to go. The book should be available to any serious student of suicide. At the time of writing, you will not find it in any bookstore. However, it is available on any major on-line book seller, and that is the important thing.

At this time, before I got my book published, almost three years after my son died, a nephew attempted suicide. He tried to overdose with his antidepressant pills, but luckily was discovered by his wife and rushed to the hospital. This time, I was not ignorant. This time I had the knowledge. I rushed to his side and made sure that what needed to be done was being

done. I printed a copy of my brain book and a copy of *A Thousand Moments of Solitude*. I had over seven hundred pages and I came to realize that my books would be of no immediate help to him or his wife. My brain book was too detail-oriented and full of neurological mumbo-jumbo, and would only make sense to a dedicated neurologist. My other book was full of personal anecdotes and history of Mitch; it would take too long to get to the useful information. On the plane, on my way to see him, I started writing another book, a book on suicide: *Suicide Explained, A Neuropsychological Approach*. The book has nothing personal, it just deals with suicide—many aspects of suicide. It deals with statistics, the who's, the when's and the how's, as well as historical perspectives on suicide and various theories that are currently used. This other book includes a simplification of my brain theory and explanation of suicide, and uses all this information to explain what is being done, what the shortcoming of these approaches are, and makes recommendations for what we need to do to reduce suicide, especially among the young. After three years of struggling to understand my son's death, I was really ready to begin to help others. I was becoming an expert. However, this new writing made me look hard at the current literature on suicide. It made me uncomfortably aware of how deficient the current concepts are and how simplistic the approaches to suicide are, reflecting the profound ignorance. All this produced a new sense of urgency: I needed to get the word out. I have information that can help others, and more importantly, save lives. *Suicide Explained* is available, and perhaps in a second edition, I will add a few details dealing with personality disorder that need to be incorporated because this is another group that fares disproportionately in suicide statistics.

This urgency also propelled me to write this book. Perhaps I can publish a simple story: this happened to me and this is what I learned. Please use this information at will and spread the word, and then perhaps the other important (much more important books) will be read. More significantly, once a brain theory (if it is correct) guides research in a coherent matter, better therapies and pharmacologies will emerge naturally. Once suicide is put into a scientific framework, more can be done to prevent it.

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According to the *DSM-IV-TR* Manual, depression usually develops over a period of days to weeks, and it can include anxiety symptoms and mild depressive symptoms. These can be present for months before the onset of a full Major Depression. If untreated, depression typically lasts about four

months. In the majority of cases there is a complete remission of symptoms, and a person returns to “normal”. In many cases, some depressive symptoms (but not enough to diagnose a Major Depressive Episode) may persist for months or years.

In hindsight, I can tell you that if you suspect a loved one is suffering from Depression, do not hesitate to seek proper treatment. My research shows that in general, the younger one is, and the more aggressive the treatment is, the greater the chances that the Depression will be completely eradicated. Do not be fooled by an apparent remission; treatment and supervision should be continued by a professional until it is safely established that supervision is not necessary, or the conditions to return to treatment are clearly explained to everyone with need to know. Treatment should be pharmacological, and as soon as the treatment improves the patient to a level that permits therapy, therapy should be initiated.

There are many types of drugs to treat depression. If the one that is prescribed is not working in a matter of weeks, find another doctor if necessary, to prescribe another drug. If therapy is not working after two or three months, look for another doctor and perhaps a different type of therapy. The goal of the therapy should be to eventually stop medication entirely. Do not hesitate to do all this. Keep in mind that one in five people that suffer depression commit suicide! One in six that suffer from manic depression commits suicide.

Do not rely on the personal reports of the person suffering depression, because in many cases they learn to conceal many of their symptoms quite well. In general, close observation will reveal when something is wrong. You can detect agitation, a lack of concentration, restlessness, problems sleeping or getting up and about in the morning, loss of appetite, lack of pleasure in activities that traditionally have been pleasurable, disorganized thought. Any one of these symptoms by itself doesn't necessarily mean anything, but combined can alert you to various mood disorders.

Share your observations with others. They might observe different symptoms than you, and when you add the information together, a clearer picture emerges. Do not be bashful, and try to make the person understand that he or she is sick and needs treatment.

Mitchell: Almost O.K.

The letter Mitch intended to fax us from Europe in the summer of 1999 indicated no problems. Sure, perhaps some lines could be construed as *he is trying to send a signal*, but to me, it was really just Mitchell being Mitchell. The eloquent Mitch trying to write as well as possible.

That summer life moved on in a normal way. At the end of August, we (Pat and I, and Mitch returning from Europe—with Freddy joining us a few days later) went to New York City, and from there, to my mother's family reunion in Southern New Jersey. The family reunion was being held as an excuse to have a birthday party for my Uncle Courtney's ninetieth birthday.

Freddy, as the captain of the Berkeley Lacrosse team, had won the National Lacrosse Club Championship in St Louis, Missouri the previous summer. At Berkeley, they had organized a tribute to the two National Championship teams to be held at half-time in the football stadium. I take the opportunity here, to thank him for missing out on this to be with us at a family reunion. In retrospect, perhaps I should have gone to Berkeley to be there for him instead. It is not too often in life that you win a National Championship. On the other hand, that family reunion was never to be held again, something that I suspected.

On route to New York City, Mitch started and later continued this letter to his friend, Luke, who went to Middle School with him:

I'm sitting here on this airplane on my way to New York and can't help reminiscing about our friendship; everything we went through and are still going through, is difficult but I know we will manage.

Remember this: You and I hitch-hiking our way around Carmel Valley, staying young, true to our ambitions and beliefs. Skate-boarding until we were drenched with sweat and blood; when loyalty was not an option but a first priority.

Above all, we lost our innocence together and for that I will never forget you. You taught me to throw up my fists for what I believe in; that discomfort is the only path towards balance and happiness; that life will continue and to stay calm even when confronted by scary situations.

Don't let the fire die out—I know it sounds cheesy but you're made of steel and I'd hate to see your potential go to waste.

*Love,
Mitch*

While in New York, two of my sisters, Pelusa and Susana joined us. One of those afternoons we went to the U.S. Open in Flushing Meadows. Mitch wrote this in one of the notebooks he carried in a backpack most of the time, probably the beginning of a letter:

I write this to you not out of an uncontrollable yearning for the past, but with and optimistic view into the future. This summer I went everywhere and saw and felt life in its craziest intensity. I snowboarded, skate boarded (even won a contest), and wake boarded in Portland. I went camping with Katie up to Sykes in Big Sur; had the two wildest days of my life. I then flew to Mexico. In Acapulco I reacquainted myself with my family.

I tell you all this, not to sound like the overanxious, falsely happy pretentious prick, but to let you know I'm O.K. Guess what? I'm at the U.S. Open right now. I'm not even joking. A year ago, to this day, I felt like life was over, and now I feel like it just started. I'm hanging out on this wild little porch, like a civilized person, drinking my Heineken. It was 5:10 and I was watching Pete Sampras play against Paul Goldstein. The stadium held about 10,000 souls and it was full to the gills. After the second set a guy died in the crowd. They had him on the floor and CPR was being given. Five minutes went by and I could see his feet coming out from the assisting crowd. They rushed in the paramedics, but I suppose it was too late. The sirens were audible within five minutes! God, the public intercom wouldn't shut up. It kept yelling, "Will people going to court two switch seating the stadium is full!"

The tennis match was not even interrupted. That's New York.

On the same trip, but on another occasion Mitch wrote in his notebook:

A giant splash of light filtered through the skyscrapers in NYC at 3:50 PM late August and I could see thousands of people walking by.

It was pretty hot and I could see the Citibank across the street. Like herds of cattle or sheep, people migrated; some wore suits and neckties,

others wore khaki pants with odd patterned cotton long sleeve shirts. I sat on this wonderfully dirty marble staircase next to an elegantly designed copper rail.

This is Fifth Avenue I'm talking about. I mean, the people just appeared out of nowhere. I wonder if there's ever been a study done on people who randomly roam the streets of New York. Some seem to be workers on a break, others tourists on vacation and others look like extras in a Tarantino movie.

Lots of people were wearing designer clothes, others wore torn up rags and begged for money or beer or sex. There was no possible way to look out of place. The stranger and more disabled one could be, the better the chances that earthling had of receiving importuned money. Now, the classier one dressed, the more intensely one was attacked by avid sales people.

It was almost hilarious that nobody even noticed me staring and writing. They were all so eager to look in a window, become anxious to buy, go in the store and purchase some item. Then, with little or no thought, go to work on Monday, look at the windows at night, and complain on Friday nights that he can't afford to pay the rent.

Lovers, freaks, businessmen, priests, and criminals strolled past me. Casting a gothic shade on half a city block was Saint Patrick's Cathedral. A yellow Porsche, golden as the sun and fresh picked bananas turned right on 52nd.

~

Katie, Mitch's girl friend moved to Santa Barbara in their sophomore year. Mitch was excited about school and having Katie near him. His sophomore year started uneventfully as far as his "episodes" were concerned, or at least, as far as we knew. He did suffer a panic attack in February and another in April. Later, after his death, when we talked with Katie, she confirmed that these panic attacks were the only ones she knew of; she would see him almost every single day, and she emphatically related to us that Mitch was not a depressed person. She could only remember one or two times when he was bummed out. To most people, being bummed out is an everyday part of life. At least for most of us, life presents a few obstacles that make it seem that life is a bummer. We get down and out on ourselves occasionally; this is not a big deal, it is normal.

When Mitch finished his sophomore year he worked in Santa Barbara part of the summer, then came home. Because he had taken so much math,

he announced the easiest thing to do was to graduate as a math major. He acknowledged that English was getting pretty boring; all those literature courses, reading all those boring books, were simply not for him. I suggested that if he was really interested in writing perhaps he study journalism. There his studies would be more focused on how to write a story. He insisted that it should be math, so math it was. This was supposed to be the easiest route to graduation and a degree.

In the beginning of his junior year, for no reason that I can discern, Mitch sent me a big post card, letter size, and was found among his belongings in New York when he died:

Dad:

Alone, I spent three hours surfing in the cold gray ocean while it rained and the white washed sky radiated a faint stale light. I faced each wave with all of my will, letting the powerful white water pound my body and cheer my soul. I stopped and looked around and for a moment I saw the world through your eyes. Sometimes when I run through the campus late at night, I pass under the orange courtyards and imagine that I am a professional soccer player about to score a goal. Time escapes my presence and your soul is there with me. We shoot the ball together and win the game—I now understand and admire the complexities of your life and accomplishments. I owe everything to you. You taught me how to be a man, how to love one woman, how to have respect and prestige and elegance. You showed me how to see through super difficulties and discover truth, love, knowledge, life and happiness. You did everything right. You gave me so much space and liberty as a child and allowed me to have a perfect childhood, sheltered from the evils of the world. You gave me the direction and passion to fulfill my dreams. But most important of all, you followed your heart and believed that it was all worth it: the hard work, dedication, self-sacrifice, giving up the good life in Mexico, everything. You are the smartest man I know. Anyone can learn facts and spit them out, but you have always had a genuine intuition about life; you're a goddamned comedian one second and an intense philosopher/engineer the next. Every day I strive to achieve something similar to you and I must admit that you weave a hard path to follow. I love you for passing cars on the freeway going to and from Acapulco, for telling me stories about the Aztecs, for keeping it real, for putting the world inside me, for losing your sense of self satisfaction and for wanting nothing but

the best for me. You saved me, gave me life, told me truth. There are so many words, so many variations of time and colors, my love for you goes beyond the material world,

Mitchell

It isn't until February of his junior year (2001) that Katie called telling us that Mitch was feeling pretty bad. She had made him visit the University's psychiatrist. Katie was so concerned she sent him home. When he arrived, he looked a little haggard from lack of sleep. I noticed that he started to get agitated as he got out of the car, but quickly got a grip on himself. I wondered if it was possible that the house, or a smell, or a plant, or something here, in his home environment, could be a trigger, a reminder of when he first suffered a panic attack a little over three years before. Could there be some connection to a partial memory or experience that even in a wrong context could start a panic attack?

Today I know that all the stimuli present at the time when any strong emotion is felt will be related. It's like the rabbit that went to get a drink and was ambushed by the bobcat. Not only does he remember the bobcat, but all the sounds, sights and smells associated with the event. The price of admission into the I-survived-the-bobcat club, includes everything that happened during that instant, the location of the ambush, the time of day, the plants that were growing next to the stream, even the colors of the flowers. All associated stimuli, now become associated to the real danger. In the future, any one of those stimuli, the time of day, the plants, or the even the colors, can elicit the natural fear response of the bobcat.

Mitch relayed to us that indeed he had had another panic attack, a pretty bad one. He had talked to the doctor at UCSB who had prescribed Paxil and a sleeping pill to be taken as needed to help him sleep. He was a little on edge, slightly agitated, but a couple of days later he announced, "I have to get back to school." And he left, assuring us that with the new pills and the doctor's supervision he was fine. We believed him.

In retrospect, as we found out the truth, this was a terrible mistake. It is common that people suffering from mood disorders come to believe sincerely that there is nothing wrong with them. At times, they incorporate their mood disorder into the natural weave of their life and sense of self, an "I've always been like this" kind of attitude.

I now wonder if some things in the home environment, the place where Mitch suffered his first panic attack, were serving as continuous triggers to his fears and anxieties, which he was able to suppress, perhaps at great effort,

under the illusion that home is supposed to be a safe place. Could it be that being home the last few months of his life was only aggravating his condition? Or could it be that things slowly, unrelentlessly spiraled out of control? Could a mad clock have taken over?

In the words of Dr. Robert Zupolsky, in his book *Why Zebras Don't Get Ulcers*, "In many cases stress and the onset of depression tend to go together. People that are undergoing a lot of significant life stressors are more likely to succumb to a major depression, and people sunk in their first major depression are more likely than average to have undergone a recent significant stressor. However, some people tend to have the great misfortune of suffering from repeated depressive episodes, ones that can take a rhythmic pattern stretching over years. When considering the case histories of those people, stressors emerge as triggers for only the first few depressions. Somewhere around the fourth depression or so, a mad clockwork takes over, and the depressive waves crash, regardless of what is going on in the outside world."

~

The best neurochemical evidence suggests that depression involves abnormal levels of several neurotransmitters: norepinephrine, serotonin and dopamine. One class of antidepressants, called tricyclics (a reference to their biochemical structure), stops the recycling, or reuptake, of norepinephrine and serotonin into the axon terminals. The result is that the neurotransmitter remains in the synapse longer and mimics an increase of neurotransmitter.

Another class of drugs, called MAO inhibitors, blocks the degradation of norepinephrine and serotonin in the synapse by inhibiting the action of a crucial enzyme in that degradation called monoamine oxidase (MAO). The result is similar, in that the neurotransmitter remains longer in the synapse and increases the chances of stimulating the dendrite of the receiving neuron. However, the newer drugs that have been developed work only on the serotonin synapses. These are called selective serotonin reuptake inhibitors, or SSRIs, of which Prozac is the most famous. Some newer antidepressants seem to work only on norepinephrine synapses.

Serotonin is widespread throughout the brain and body. It acts in various ways: e.g., controls diameter of blood vessels, affects pain perception, influences the gut, has a role in the inflammatory responses, causes platelets to clump, and is also deeply implicated in depression, sleep regulation, aggression and suicide. It is well known that serotonin, dopamine and norepinephrine are intricately involved in mood disorders. The different antidepressants have a

great range of failures; these medications, I believe, only occasionally affect neurotransmitters and accidentally help restore a proper balance in the brain chemistry.

To give you pause: consider that there are currently recognized fifteen different types of serotonin receptors, with differing functions, efficacies, and distributions in the brain. Maybe there are a variety of different neurochemical roads to a depression, and different pathways are associated with different subtypes of depression (unipolar versus manic depressive, or triggered by outside events versus a depression running on a cyclical clock, or one dominated by psychomotor retardation versus one dominated by suicidalism . . .). Antidepressants act tangentially and do not address the root of the problem, which is the simple explanation of why sometimes they work, and sometimes they don't.

The evidence is scant. Doctors simply don't know it all. The important thing is that the doctor must monitor closely what the medication is doing, so that he or she can increase or decrease the dosage or the type of medicine, or combine several of them. An improvement should be noticeable in a couple of weeks. As soon as practical (sometimes a person is so depressed that psychotherapy isn't possible), therapy should be brought to bear to assist the medication. Some people react to therapy better than to medication. The goal is to reestablish health without the use of medications.

~

Shortly after Mitchell returned to UCSB that February, he announced that he was changing his major again. His explanation to me was that math, especially the upper division courses, were too boring. As an engineer, with a good knowledge of math, I agreed with him. For me, mathematics is a tool to solve problems; to study mathematics for mathematics sake is too abstract. As I belatedly realized, Mitch hadn't mentioned that he felt the cause of his recent panic attack had been the degree of difficulty with his math courses. Mitch now would be striving to graduate with a degree in International Studies.

In the normal course of life, emotional exchanges through facial expressions, body posture, tones of voice, serve to communicate to others our internal emotional state. We "understand" other's emotional states by re-creating in us the same emotion that their facial expression or tone of voice conveyed. Unfortunately, when our loved ones are feeling bad, are depressed, they strive to limit their emotional exchanges to spare us from generating

internally the bad feelings they are experiencing. This limits our ability to empathize with them, or conversely, when we do “see” their bad feelings, occasionally we avoid re-generating their bad feelings, conveying the false idea that we don’t want to be bothered with their problems. Mitch’s limited emotional displays at this time, added to the physical separation because he was away in college, resulted in us being much less aware of the his real emotional make-up.

In an e-mail to R.B. (friend of my sons and fellow skateboarder) dated March 8, 2001, he barely makes a slanted reference to his state of mind. After he discusses a very rigorous, skateboarding practice routine, he goes on:

I was just feeling it in this morbid fog I guess. I don't know . . . I still go to the underground parking lots by myself on a rainy day and skate it up. Anyway, you got to see the car we're building. It's almost done. I'm building the whole suspension system and the driver train. It's so crazy to think of our boxcars compared to this thing. It's weird though; a lot of the mentality is the same. I got a job in a machine shop making medical parts and racecar components. Everything is computer controlled. All I do is push the start button and clean the parts when they come out of the machine. We could put my chopper together in that shop in about an hour if we wanted to. You'd like the suspension I built. It's got four arms on each side of the car that go to the bearing assembly, which connect to the shocks. The drive train has four universal joints and two splines, which allow the shaft to extend and contract . . .

Anyway it's been a dark old week, with all these kids snapping and killing people. I don't know if you heard of the kids that were killed at our school. It's out of control . . .

Then doing big old kick flips, or nollie flips or whatever off the stair or the ramp. I could put it at my parents' house in the back. I don't know. I get these fleeting visions and then they're gone.

Hope you're doing well, and hope to see you soon.

Mitchell.

I checked with Mitch about his medication (Paxil), he responded, “It numbs me a little, I feel like I think slower, but I can feel its effects and it keeps the antsiness at bay. It allows me to do more analytical work without the feelings coming up and getting worse.” When I pressed him about sleeping, he answered, “Generally I don’t need to take the sleeping pill, but if for some

reason I can't sleep, then it helps me relax and fall asleep." Essentially, Mitch said, "I need to take the Paxil, but slowly the dosage will be reduced and I should go off it. Not to worry; my doctor at school is supervising closely."

Here, in another E-mail, is the smallest indication that mathematics, or abstract thought in some way triggered his panic attacks. This one dated April 1, 2001:

. . . what I mean is that some things are just bad and that's all there is to it. Luke is stuck in Carmel; he's given up on himself and is praying for cancer. He believes that trying to build something in life only leads to greed and that he never wants kids or a better job. I nearly tore him a new asshole last time I was in Carmel. I told him to get his act together . . . what I mean is that we have a foundation to build on. Things might get rough but we're not praying for cancer . . . it makes me sad. I mean, imagine if you were stuck in that quiet afternoon sky of Carmel for the rest of your life, no education—the whole nine yards. But then I think of my friend Aaron who broke his neck riding motorcycles and he's more positive about everything than just about anyone I know. And he can't even move his left arm.

This last quarter broke me. I thought that I could pull out the math degree but it shattered my mind in about a thousand pieces. For about two weeks I had trouble sleeping and was so mentally exhausted that it hurt. I changed my major to Global Studies with emphasis on socioeconomic politics. Hopefully I will manage that. I try to believe that it was all for a reason, me crumbling under the density of sixteen units of Euclidian Geometry . . . Anyway, one theory that I had been brewing in my mind is that we can only experience as much happiness as we can pain. That for every moment spent suffering—a cold shower, long day in the machine shop, stepping up to a pretty girl for the first time—only after those experiences can there be moments of rest and enjoyment . . .

A few e-mails Mitch wrote just a few weeks later in April give us a glimpse that he is back to his usual self and show no trace of any mood disorders or panic attacks:

That poem was fierce. You have to read Nabokov to get the sick words and phrases, like "like the wail of a crippled violin, avalanche of dull sound, a wild pale glitter was flying across the sky like a rapid

reflection of colossal spoke” . . . Anyway, the car is in its final stages. We are welding the shit out of it right now. I keep getting in squabbles with this faggot engineer who thinks he knows it all . . . I wish it was us, you, Shariff and Freddy . . . drinking beers . . . No calculations, no “are you really an M.E. major” bullshit. Just riding it until it snapped and then making modifications

. . . Sometimes I feel uncertain about having grease and dirt under my fingernails from the machine shop, but that’s the life style that I know I’ll excel at. I sometimes wish I could have a B.S. in Mechanical Engineering like Fred and my Dad and most of my friends. But I wouldn’t be happy I sometimes feel I had to dig holes while those chumps sat at their desk doing calculus and thermodynamics and they’re the ones that are going to get all the gold. I try to remind myself that my experiences are much richer and humane and that the pay cut will be nothing compared to the richness in my life . . .

. . . there is the peaceful quiet Mexican that I work with . . . he told me he was into music and singing but he could not play any instruments. He began singing the most beautiful songs and poems about his time in Illinois away from his family, about regrets he had with his mother, deep insights into love and happiness . . .

. . . Like this computer programming shit I did for the helicopter. I was so into it, just for the helicopter and all. And now I found a job that pays 25/hr to do nothing but that program . . . It’s a fine line my friend, and I’m willing to live in a shack with my girl and a dog and have truth than to be bitter, ’cause nothing is worth that feeling (unless you got little ones running around and then anything is worth it . . .

After his death we talked to his doctors at UCSB. His records indicated that Mitch had been in to see them three times in February 2001. He had been diagnosed with Moderate Depression with Panic Attacks; he was not considered suicidal. He was sent several written notices to report back to the doctors for his continued treatment as late as May. Mitchell never returned to see his doctors until over a year later in May 2002, when he needed to clarify his medical records as a requirement for his plans to go to Spain to start work in a master’s degree. His medical record shows that he convinced his doctors that he was fine; he was doing all right at the time and had no problems of any sort.

The last quarter (spring of 2001) of his junior year Mitchell was working on an off-road vehicle with a team of engineers at UCSB. This vehicle had

to perform all kinds of different feats like going up a slope at a certain angle and going over a log or a rock of a certain diameter. The vehicle then would enter a competition against other entries from other Universities.

That summer he came home and he wanted to start a factory for off-road vehicles. He was an expert, Mitch informed me, the brightest guy on the UCSB team. He presented a business plan to build several a week. He could, he felt, net half a million dollars a year.

I agreed to be his financial partner if he listened to me. I advised, "Build one and sell one. Then build two and sell two, and so on." He reluctantly agreed. We would start by building one, and then take it from there. Once we bought the equipment and tools and began work on the car, I realized he didn't know that much, but with my experience in designing and building machinery, this would be a "piece of cake."

I started by teaching him how to weld. As he asked all kinds of questions, he marveled that I could not only answer them but also open a book to where it was all explained in more detail and pass it his way. He asked such things as, "How can you determine the strength of the chassis? How can you determine the top speed of a car?" I suspected there was a little bit of regret that he hadn't pursued his engineering. When he didn't believe I could remember the answers, he would call his brother Freddy, also a mechanical engineer, and he would get pretty much the same reply.

Katie, his girl friend was also at home for the summer, a few miles away. The only thing I thought strange about Mitch that summer was his aloofness with Katie. She would call, and more often than not, he would not even return her calls. I told Mitch, "If you don't want to see her fine, but tell her so. You shouldn't keep people hanging around unnecessarily." I wondered to myself if he was just a normal twenty-one-year-old, being a little inexperienced and careless, or if it could be a shadow of his former behavior when he broke up with Meredith in his senior year in high school, because Meredith was "making him stress out". Could there be a mental explanation for his recurring depression that he had learned not to externalize? I watched him closely, but became convinced he was just simply being an inexperienced twenty-one-year-old. He insisted that he was too busy building this car to see Katie, and I could see that he was. However, if he loved her, I couldn't understand why he wouldn't make time for her, but Mitch just threw himself completely into this project. One thing I noticed was a little unnerving: he didn't pay attention to some small instructions I gave him, like always tighten all your bolts and nuts as much as you can, but if you knew his mother, this was a minor transgression.

One afternoon Mitch took the off-road vehicle for a test drive down our drive, a privately owned road that goes straight and flat for about 600 yards, then turns right. After the right turn, the road becomes very steep and ends at the top of a hill. There he could turn around in a cul-de-sac and come back down. A few minutes went by after Mitch made the turn, and I couldn't hear the sound of the engine. I thought probably the engine had stalled and Mitch was having a problem restarting it. Then, I saw him walking down the road towards the house. He was visibly shaken.

"I almost got killed, dude," he said. "I lost my brakes. They fell off and you don't need to rub it in. I know. I won't forget to tighten the screws from now on, so don't say anything. Just be quiet. I could've gotten killed I was coming down so fast . . ."

I chuckled.

"It isn't funny, don't laugh! I almost got killed; and don't tell Freddy."

We finished the off-road vehicle, thoroughly tested it on a track we traced out on our property, made some notes on improvements we would want for our next generation of off-road vehicles, and tried to sell it. A few people showed some interest, but no real buyers.

Eventually Mitch sold the off-road vehicle. He pocketed the money explaining, "If you take into account the number of hours I worked, it comes to about \$3.50 per hour. I hardly made any money!"

"What about all the hours that I worked, what about my investment?" I retorted.

"You worked for fun, and you can afford this loss," he tried to convince me philosophically.

I was \$1,500 poorer. He had made \$1,300 for the summer.

Later, Freddy and I had a good laugh with Mitch about the brakes.

~

When Mitch was home in Carmel or at Santa Barbara, he went surfing every time he could. He told me the cold water had a soothing effect on him. When I was young, whenever my parents took me to Acapulco, I loved to body surf. There the water was forever warm. I never learned to surf on a board, even though I always wanted, and was glad that Mitch liked it so much. For me, the Californian waters were too cold.

As a young boy, I studied the wave patterns in most of the beaches in Acapulco, and I came to know intimately how the contours of each beach affected the rise and fall of the waves. I discussed with Mitch the different

types of waves. Inside the bay, for the most part, the waves are very small, from one or two feet to perhaps five or six feet in height. There was only one beach inside the bay where, when conditions were right, the size of the waves would be close to the size that you normally would encounter on the beaches outside the bay facing the open ocean.

The beaches facing the ocean have much bigger waves, because the waves are undisturbed on their long journey across the Pacific Ocean. Occasionally, I have seen waves twenty-two feet high; more common are waves in the range of thirteen to seventeen feet.

When I was about nine years old, two brothers, Danny and Ricky, who lived nearby in Mexico City and were my best friends, would invite me to go to Acapulco with their family. They would generally go twice a year. Back in those days, we had two weeks vacation in May and two weeks vacation in September. School would be in session all summer, but we had December and January off between school years.

Their parents rented a four-bedroom house above Mimosa beach, a private beach. This beach faces the open sea, and its waves are very similar to the ones at the Pie de la Cuesta, a well-known beach north of Acapulco, famous for the sunsets and the big surf. Because the terrain under the ocean rises quickly, the waves approach the beach, suddenly lift up, then break. The orientation of the waves in relation to the beach causes each wave to approach in a continuous front and to break practically in one movement. This kind of wave isn't good for surfing, because there isn't any time to get going on the wave before it crashes overhead. With enough practice, however, you can do some body surfing. For the most part, it is just plain fun to navigate and survive the pounding of the waves.

As I look back, I don't know how we were allowed to swim in the ocean unsupervised so many hours daily. We would go down about one hour after breakfast, and more often than not, we would swim until it was dinnertime.

As we got better over the years, we would invent different games to play in the ocean. One of them consisted in sitting in old inflated inner tubes, holding on to each other, and letting the currents of the waves take us wherever. It was a type of chicken game. The winner would be the last one not to jump off the inner tubes and dive to avoid being mangled by the breaking waves. If we all stayed on our inner tubes and got mangled together, the first one to get to an inner tube would jump on it, and the others had to get a tube, bring it close to the first one, and jump on it and start again.

We had timed the pounding surf after it broke to last about fifty seconds. We all could hold our breaths at least one minute, so as long as we weren't

caught by surprise, we would all surface from the rough rides among the foam. We were always careful to count heads when we came up, and occasionally when someone didn't come up with the rest of us, we'd all dive and start looking for the missing person. But normally, just a few seconds after we all came up, the missing head would pop up laughing among the foam in some unexpected place, reflecting the fact that the underwater ride had been longer than expected.

On Easter Week 1964, when I was twelve, Danny and I were in Playa Mimosa alone, playing in the waves with our inner tubes. There were some rocks sticking out of the ocean, about 600 yards from the beach. We used them to estimate the size of the wave, as well as how far out it was going to break, by observing how high on the rocks the waves would rise. This time, we both saw a wave rising far behind the rocks, probably about a mile out. This one was going to be very big!

I turned and looked at Danny; he was about ten yards behind me, closer to the beach. I said urgently, "Hurry, we have to get in!" I wasn't sure if he could make it.

He yelled back, "I can't make it. I'm going out," meaning that he didn't think he could make it before the wave broke, it would pound him severely, so he was better off retreating to the beach. This was always hard to do, because the ocean rushed down the incline of the beach to meet the oncoming wave.

I, on the other hand, estimated that if I swam as hard as I could, assisted by the sucking of receding water, I would just make it over the wave before it broke. I started swimming as fast as I could towards the rising wave. An error in judgment, or even hesitation, on the part of either one of us, could prove fatal. I felt, more than I thought, I was committed; I could not get out of the water. The rushing waters meeting the oncoming wave were too strong. I was locked into going in. Still, I was amazed that his estimate matched mine. I might make it, whereas he would surely not. He was locked into retreating.

"Go," I encouraged. We both swam in opposite directions fighting for dear life.

I had my inner tube under my chest as I paddled furiously with my arms and kicked with my feet. The wave kept rising, and the amount of water receding from the beach was increasing unbelievably. I had never seen anything like it. I was getting close to the rocks, now about one hundred yards from me, and the approaching wave kept rising behind them, foam starting to break at the top. The wave must have been about thirty-five feet high. The top fifteen feet was covered with thundering foam, as the top was breaking

and couldn't support itself. I felt that I might not be able to get through such a big curl of foam. I had a nagging feeling that I was doomed.

If Danny hadn't been able to make it out, he was surely doomed. I turned towards the beach to see if he had escaped. I was amazed at the sight. The six hundred yards that were normally covered with water were bone dry. I could see the exposed rock formations that we had only guessed at before by the shadows they normally made below the surface. I could see Danny on the beach in the distance below me.

I turned to see the looming wave, and simply couldn't fathom how I would be able to swim up such a steep surface. The last amount of water that was rushing to meet the wave pushed and carried me swiftly up to the top. I was hanging on to my inner tube, literally for dear life. I managed to burst through the thundering foam at the top, and the wave passed me and broke. After the wave broke, the foam and water that erupted and fell on top of me threatened to drown me. I knew I was on the surface of the water, holding on to my inner tube, but the foam was so thick I couldn't breathe. With one hand I waved desperately trying to remove the foam above me. Finally, I felt the air and gasped relieving my burning lungs.

The beach was about eighty yards wide and then a steep hill went up at an angle of about fifty degrees. I saw that the wave had swept past the entire beach and rushed up the slope of the hill. Danny was up in a tree about ten yards above the beach. He was waving at me. I waved back. As I started my long swim back to the beach, I kept looking behind my shoulder, fearing that another wave would show up. Normally the big ones come in series of three to five waves.

Fortunately, nothing else came. Everything was back to normal. When I got to the beach, Danny and I looked at each other, and he said, "We are so lucky to be alive."

"I know. I think we should go to the pool," I answered. He agreed without argument. It was the first time in years that we quit the ocean voluntarily. Later we found out that we had survived a Tsunami, known in Mexico as the Green Wave, generated by an 8.4 earthquake in Alaska the previous night (7:36 PST).

A few years later, when I was nineteen, I was body surfing in Pie de la Cuesta, a beach a few miles from Playa Mimosas. I was practicing a move that the local beach guys had taught me. In this move, you let the water suck you in towards the rising wave feet first, floating on your back. If you time it correctly, the top of the wave, as it curls and breaks, takes hold of your feet and drives them over your head in a backward flip. As the wave pulls your

feet, the rest of your body follows and, as the wave breaks, the force of it sends you straight down, with your back towards the beach. You land harmlessly, feet first into the sand as the wave breaks over and past you and continues its journey towards the beach.

The effect, as seen from the beach, is that observers can clearly see you upside down in the middle of the wave as it rises right before it breaks. Then, after the wave breaks, if you hold your breath and don't surface, you can lead the beach observers to believe that you have been completely mangled. Of course, when you don't time this move correctly, the wave grabs you and pulls you upside down, head first on a very rough run, bouncing and hitting the sand for the full ride. It is not a pleasant experience.

On that day, I got a little overconfident and stopped paying attention to the incoming waves. Then I saw the first of a series of big ones. I was too close to the beach to get to it before the wave broke (the bigger the wave the further in it breaks), and I was too far in to try to get out. I was in the worst possible place. I struggled as best I could to stay as far away from the breaking wave as possible. It was a twenty-two footer. As it broke in front of me, it exploded and hit me full force. The wave took me down, then suddenly jerked me up, then took me down again. I was slammed into the sand. My right shoulder hit first, the impact knocked the wind out of me. I didn't realize it then, but I had separated my shoulder. Jerked around like a ragged doll, I lost all sense of what was up or down: the light seemed the same in all directions. I started to see stars; I was running out of breath; and the ride was showing no signs of abating.

I tried to move my arms and swim, only to hit the sandy bottom again. My lungs were burning. My limbs were not responding, memories flashed quickly through my head, fear, more stars in my field of vision. Suddenly, my vision faded, the blackness formed a narrowing tunnel, and in the middle there was a bright light. The bright light got smaller, and as it did, a tremendous sense of calm and peace overcame me. I looked at the light; it seemed to be getting smaller, but perhaps closer. But the peace was all encompassing. The triumphal march into nothingness, death, loomed close by. Then suddenly my head broke the surface and air poured into my lungs.

I had just stared death in the face. As oxygen levels decrease, the emotions start to shut down first, then the senses. The sensation of complete peace is simply the absence of emotions of any kind. The tunnel vision and the light that many people near death describe is just how dying feels as the senses are being slowly shut down in the absence of emotions! Perhaps the way one dies is terrible, but death itself isn't.

After going through many of the writings that Mitchell saved—term papers, letters, personal diaries, anecdotes—I found only a couple that could relate to his mental illness. One of these I find interesting and perhaps revealing, even though I am not sure when it was written, I am guessing sometime in 1999, in his freshman year at college. I convey it here, as I feel that in some small way, it might give us a window into his turmoil. At the same time I am not sure if he is being literal or metaphorical, but probably both.

My face landed on the satin covered pillow; was buried and surrounded and smothered in material. I lay there silently waiting for the slight transition into dreamland.

Wickedly conscious and anxious to fall asleep, I awaited in the bitter darkness of a hotel suite. Dirty little grunts surfaced on my face. I was going to be tough, I told myself, out of desperation in the black and gloomy single-bed room.

The basic human need for love was violently present, forcing my tear valves to secrete full throttle. I hugged the blanket, so empty and not her. I missed Katie passionately as vascular thorns pierced me fiercely.

And then I closed my optics.

A whole rainbow of colors; an intense injection of memories displayed itself, rang true, like cards shuffling—only being able to catch a glimpse of the hues. The thoughts, realities, and insights evaporated inside me, sizzled and put me to . . . (there might be a page missing) . . .

I stopped in my step and watched as a wave of stairs formed ahead of me. It enveloped me the same way quicksand devours traveling gypsies. Sinking through space, time, and concrete I found myself in a gigantic hourglass. Staring into the hourglass, with long hair and clear blue eyes was a younger version of me. I could see my replica but he couldn't see me. Dear reader, understand this: I was now in a 1965 Mustang traveling seventy miles per hour along the coast of California. To my right were vast mountains covered with dead brush and weeds. Cows fed their five stomachs with any shrubbery they could obtain. The road kept passing under the tires and off in the distance there were puddles of water in the road. When I reached the water I realized it was only a reflection caused by hot roads.

Here, now, and always there would be pain and suffering. To both sides of me there were zombies driving two-ton hunks of steel with tires. The blind look on their faces manifested some sort of task they were going to accomplish.

I drove across a bridge, connecting two tracts of land together. Giant cliffs off in the distance laughed at me. Twelve mountains off in the distance, each with sixty trees and ordered from large to small seemed to get closer as time elapsed. Some days it takes all time guessing why I can't figure it out.

Suddenly the quicksand spit me back with intense vigor. I landed back on that sidewalk from my childhood. It was daytime now, yet I still felt the tremors and mystery of the night. I threw up my hand towards the sky in a wild gesture of interrogation. The sky dripped its baby-blue firmament on my face and I was now under water. Reluctant to bring myself to the surface, I snorkeled all around checking out the surroundings. I was in a navy-blue painted pool, water cold as ice.

Because it is imagination that keeps the soul jubilant it's the safe place of refuge inside our memory that helps us face the wicked world!

"Tell me about the things you want to say. Don't act so angry, I here for you. Don't think I don't care. If you were here I would squeeze you tightly."

Why would you do that to yourself? You said you would, you did, I love, you know it. Things won't change.

Therapies and Suicide

Caution must be used when considering a therapy for a particular psychiatric problem. Not all therapies are successful for everything, and not all people respond equally to the same therapy. Therapy is a process that attempts to change the way a person thinks, feels, and/or acts.

For the most part, more and more, psychiatrists tend to try to solve the problem with medications; a fifteen-minute consultation, diagnosis, prescription, and further visits to tweak the medication. On the other hand, psychologists can't prescribe medications, and concentrate on therapies based on talking and addressing body imbalances, flows, thoughts, energies or feelings. Curiously, for the most part, psychiatrists will only concern themselves with the patient's subjective view of "are you feeling better" in order to ascertain whether to increase or decrease a dosage or add or subtract a particular medication. And the majority of psychologists will not concern themselves with the medications, much less dosages, that their patients are taking. They only concern themselves with the measurable results, even if these are subjective, to determine how efficacious is their therapy. Of course, one is billed for every visit, whether the prescribed therapy is working or not.

Psychiatrists and psychologists should understand that therapy and medication are part of the tools available to treat mental illness. Yet, there seems to be a split in psychiatry. How is it possible that medications and therapies are so often not considered in unison? In the words of William Normand, a practicing psychoanalyst, "Psychiatry has gone from being brainless to being mindless." The answer, perhaps, is economic. First, to receive a degree in psychiatry requires many more years of studies than a degree in psychology. Psychologists charge by the hour, psychiatrists by consultation, generally fifteen minutes charging the same as an hour consultation, reflecting the years of study.

Psychiatrists originally did a lot of talking and therapy; it was the only game in town, as the medication arsenal was almost nil. However, as more and more medications became available, they realized how much more money could be made by prescribing medications and were happy to relinquish the

talking to the psychologists. The psychologists, in turn, were happy to get all this business previously dominated by the psychiatrists. And, since both know that what the other is doing only works partially in many cases, if at all, they don't concern themselves with it. Considered as proof by many of them, that either medication or therapy is not working, is the fact that the patient is trying to supplement one or the other. There are some who will actively encourage both, medication and therapy. But to increase the chances of success, it is crucial to use both together. Part of therapy should be an education on the chemistry of the mental disorder and on what the medication is expected to do and of how it works.

When I had a problem with a cervical disk, the disk was removed surgically and the vertebrae were fused with a titanium plaque and screws. I was in the hospital about twenty-two hours. The bill was close to \$42,000.00. My neurologist charged close to \$8,000.00 for the one hour and twenty minute operation. I saw him a few minutes later that day. It is evident that he is a busy man, and that his time, financially speaking, is much better used in the operating room than talking to patients. At approximately \$6,000.00 per hour, he is not going to waste time talking to patients or holding their hands. Let someone else do that. Many psychiatrists, likewise, let the psychologists do the talking and hand holding.

New theories and therapies come into vogue all the time, and then drop into oblivion. The history of psychiatry is strewn with many ideas and concepts that have gone by the wayside. Concepts once held to be truths are discounted later as myths or superstitions. The more durable theories—neuropsychiatry, psychoanalysis and behaviorism—differ theoretically as well as in experimental and clinical approaches. Despite their differences, they share one basic assumption: hidden forces over which he has no control victimize the emotionally disturbed. These three schools maintain that the source of the patient's disturbance lies beyond his awareness; they gloss over his conscious conceptions and his specific thoughts and fantasies.

Emotions are triggered to produce a certain type of behavior. The caudate nucleus is responsible for activating all memories and modes of thinking associated with each emotion as well as activating emotions when certain modes of thinking are detected in order to produce a quick response. The caudate nucleus is a two way street. When I think of Mitch, different emotions are triggered depending on how I think of him; sadness, joy, nostalgia, yearning.

Each emotion in turn has its own particular circuits in the brain. The pathology arises when emotions are triggered for no apparent reason at all.

Emotional disturbances may be present when these circuits are activated for wrong reasons or lock on and can't be turned off as needed. The wrong emotions can be triggered when thinking slows down or speeds up incorrectly for one reason or another. Other serious problems arise when the attentional systems are perturbed, either because they are not working synchronously, or stop functioning normally. In these latter cases, emotions are put into the wrong context, producing improper responses.

Any therapy, to be successful, has to address these points. Most therapies touch on these points tangentially or indirectly and their success will be in proportion to this.

Coming from the nineteenth-century doctrines of physicalism, traditional neuropsychiatry tries to find biological explanations, such as chemical or neurological abnormalities, and applies drugs and other physical measures to relieve the emotional disorder. Neuropsychiatry is interested in a person's thoughts and feelings primarily as a diagnostic tool. Abnormal ideation and feeling states are regarded as manifestations of an underlying physical process or as a clue to a disturbance in neurochemistry. The neuropsychiatrist with his confidence in biological causes will administer drugs or use physical treatments like electro-shock therapy.

Psychoanalysis, which also has its underpinning in the nineteenth century, attributes the person's neurosis to unconscious psychological factors: the unconscious elements are sealed off by psychological barriers that can only be penetrated by psychoanalytical interpretations. It attempts to get to the cause of a maladaptive condition, often by making unconscious (repressed) memories conscious. This is a long, arduous, slow process. Psychoanalysis might be good at explaining things, but it is not efficient at changing them.

Psychoanalysis regards conscious thoughts as a disguised representation of unconscious conflicts that are presumably causing the problem. The patient's explanations are considered as rationalizations, as coping defense mechanisms. As a consequence, the person's ideas, his reasoning and judgements, his common sense solutions are not taken at face value; they are treated as clues to concealed components of the mind. Psychoanalysis attempts to cure the neurosis by uncovering hidden (repressed) ideas and wishes and by translating the conscious thoughts and fantasies into their presumed symbolic meanings.

Psychoanalysis is less accepted today than in the past. Sometimes it requires four or five sessions a week for up to six years. There are other related therapies called Psychoanalytic psychotherapy, in which the therapy is less frequent on a weekly basis, but can still last up to three years. And more

importantly, psychoanalysis has been proven to be quite ineffective to correct most emotional disorders.

Behavior therapy, whose roots can be traced even farther back to the eighteenth century, regards the emotional disturbance in terms of involuntary reflexes based on accidental conditionings that occurred previously in life. According to behavioral theory, the person cannot modify these conditioned reflexes simply by knowing about them and trying to will them away, so he requires the application of “counter conditioning” by a good behavior therapist. Practitioners of this therapy have downgraded thinking because in their zeal to be an exact science like physics, they reject data and concepts derived from man’s reflections on his conscious experience. Only directly observed behavior is used in forming explanations. The thoughts, feelings and ideas that are only accessible to the person experiencing them *are not* considered valid data!

The behavior therapist, with his faith in the deterministic role of the environment, attempts to cure the neurosis through rewards and punishments, exposing the patient by degrees to situations or objects that are causing the disturbance. Behavior therapy is based on the principle of counter conditioning, which states that a person can overcome maladaptive anxiety elicited by a situation or an object by approaching the feared situation gradually and in a psychophysiological state that inhibits anxiety.

Behavior therapy seeks to alter maladaptive conditions (basically, bad habits) through the learning principles of behaviorist psychology, like extinction (aversion therapy to eliminate a habit) and positive reinforcement. Another technique is relaxation training to try to produce opposite physiological effects to those of anxiety: a slow heart rate, increased peripheral blood flow, deep slow breathing and the like. These therapies work best for specific phobias, obsessions and compulsions, and certain sexual disorders.

For anxiety and psychotic disorders, there are a number of different group therapies that use different approaches. Although, their success rate is low, they mainly help to reduce the severity of the symptoms. The sessions seem to work best for helping to restore health when facing extreme normal reactions, like grieving or overcoming stressful situations. There is Supportive, Analytically Oriented, Transactional Group Therapy and Behavioral Group Therapy. Sessions vary from once to three times a week for a few months to up to three years.¹²

¹² Harold I. Kaplan & Benjamin J. Saddock, *Synopsis of Psychiatry*.

Cognitive therapy has its roots thousands of years ago, perhaps to the time of the Stoics, who considered that a man's conceptions (or misconceptions) of events rather than the events themselves are the key to his emotional disturbances. There is a supposition that the person's consciousness is a key to understanding and solving his psychological disturbance within the scope of his own awareness. Cognitive therapy takes as a starting point the notion that dysfunctional mental states (beliefs, attitudes, ideas) contribute significantly to psychopathology, and that the pathological conditions can be altered by helping the patient to identify and correct the beliefs. Cognitive therapy suggests that the person's problems are derived from distortions of reality based on erroneous premises and assumptions. It assumes that these incorrect conceptions originated in defective learning during the person's cognitive development.

Regardless of their origin, the treatment is simple: the therapist helps the patient unravel his distortions in thinking and to learn alternative, more realistic ways to formulate his experiences. Cognitive therapy works well for dysthymia and nonendogenous depression. It is a short-term structured therapy that uses active collaboration between the patient and the therapist to achieve therapeutic goals. It places the patient in the role of scientist and uses his already available tools and experiences to approach problems that seem insoluble to him.

The cognitive approach includes four processes: (1) eliciting automatic thoughts, (2) testing automatic thoughts, (3) identifying maladaptive underlying assumptions, and (4) testing the validity of maladaptive assumptions. Automatic thoughts are cognitions between external events and the person's emotional reaction. The therapist then teaches the patient how to see the validity of his or her thoughts. The goal is to reject inaccurate or exaggerated automatic thought with careful consideration. As the patient repeatedly does this, patterns become apparent, representing rules or maladaptive general assumptions that guide the patient's life. Ultimately the validity of the maladaptive assumptions must be tested and corrected when necessary.

Cognitive therapy has been applied mainly to depression (with or without suicidal ideation); it has also been used with other conditions, such as panic attacks, obsessive-compulsive disorders, paranoid disorders, and somatoform disorders.¹³

¹³ Aaron T. Beck, *Cognitive Therapy*

One of the therapies with the best record for curing depression is cognitive-behavioral therapy. This type of therapy combines elements of both behavioral and cognitive approaches. This is a form of psychodynamic therapy based on emotional and mental responses to external events, in the present and in childhood with tightly focused objectives. This approach tries to force the mind to think in certain ways, and by doing so, change one's reality. The therapist traces the sequence of events that have led the patient to their present difficulties. The patient then learns why certain events are depressing and tries to free himself of inappropriate responses. The patient is taught to neutralize his "automatic thoughts". Feelings, from this point of view, are not direct responses to the world: what happens in the world affects cognition, and cognition in turn affects feelings. If the patient can alter the cognition, then he can alter the respective moods.¹⁴

This method fails to understand that emotions dictate specific modes of thinking when they assume that faulty thinking is at the root of the wrong emotion. However, they are correct in assuming that changing a mode of thinking changes the underlying emotions.

Another therapy with similar rates of success in treating depression is known as interpersonal therapy (IPT). This approach was formulated by Gerald Klerman and his wife, Myrna Weissman. IPT focuses on the immediate reality of current day-to-day life. It fixes things in the present. It tries to teach the patient how to make the most of whatever he is; it does not attempt to make the patient a deeper person. It is a short-term therapy with boundaries and limits. It assumes that stressors trigger depression, and that these can be cleaned up through well-advised interaction with others.

Treatment is done in two stages. In the first, the patient is taught to understand his depression as an external affliction and is informed of the prevalence of the disorder. His symptoms are sorted out and named. He assumes the role of the sick one and identifies a process of getting better. The patient catalogs his present relationships, and with the therapist, defines what he gets from each one, and what he wants from each one. Second, the therapist works with the patient to figure out what the best strategies are to elicit what is needed in the patient's life. Problems are sorted into four categories: grief; differences in roles with different relationships (what you give in relation to what you expect); states of stressful transition in personal and professional life; and isolation. The therapist and the patient establish a

¹⁴ Andrew Solomon, *The Noonday Demon*.

few attainable goals and decide how long to work toward them.¹⁵ Through interactions with others, hopefully, emotional changes will be achieved. ITP indirectly uses the positive emotional attachments to produce positive thoughts and behaviors.

Other therapies derive from the idea of energy systems. Eden wrote that there are eight major systems: the aura, the chakras, the meridians, the Celtic wave, the basic grid, the five rhythms, the triple warmer, and the strange flows.

The energy that surrounds all living things is the aura. Bioenergy is said to enter the body through seven energy centers called chakras. Six are located along a line paralleling the spinal column, and the seventh is said to extend out of the top of the head. The chakras connect with the meridians and other energy levels. The meridian system is said to involve fourteen energy pathways: two central vessels that run vertically on the center of the front and back of the body, plus twelve primary meridians that exist bilaterally. Each meridian is said to have two channels of energy. One flows close to the skin and is presumably the one accessible to an acupuncturist and an energy psychotherapist. The other, flowing deeper inside the torso, passes through the organ with which it is associated. Along each of the meridians are the acupuncture points, some 365 in the twelve primary meridians alone. Most of these energy systems were developed in China and India thousands of years ago.

The main principles of energy psychology are the existence of a subtle energy system in all living things. This is manifested by energy flows and when the flows are blocked, disorders result; disturbing thoughts and emotions triggered by traumas affect the meridians. Each meridian is related to an organ, which in turn is related to a set of emotions. By treating the correct points in a meridian, the flow will be reestablished and the accompanying emotional disturbance will clear.¹⁶

These energy therapies are emerging as the therapies of choice, partly because of the low rate of success of the other therapies, partly as a choice of last resort, and partly due to their success rate.

In the 1960's the chiropractor George Goodheart, building on the knowledge of manual muscle testing, developed applied kinesiology, and this was later mixed with meridian theory to promote health. In the 70's psychiatrist John Diamond, trained in applied kinesiology, discovered that

¹⁵ Ibid.

¹⁶ John G. Hartung & Michael D. Galvin, *Energy Psychology and EMDR*.

the different meridians and their associated organs were related to different emotions.

Psychologist Roger Callahan, building on this work developed what came to be known as Callahan Techniques-thought field therapy (TFT). Later, in the 1990's these evolved into what is now known as Evolving Thought Field Therapy. Once the organ involved with the negative state is found, the practitioner treats the meridian rather than the organ itself. Using muscle testing he determines which points need to be tapped and in what order. He added a procedure called eye roll at the end of successful treatment.

Several variations on this have been developed. Gary Craig and Adrienne Fowlie suspected that all these complicated sequences were not necessary. In 2000, John Diepold developed an alternative to tapping. Acupuncturist Tapas Fleming developed another technique popular with energy therapists in 1993. This involves the patient and therapist touching simultaneously meridian points, a chakra and the occipital region of the head.

All these rapidly evolving therapies are known as energy psychology or energy therapy.

There are several methods and versions of energy treatments. According to some of these methods, some problems have several aspects, and not until the presenting one is cleared is an underlying one apparent and accessible to treatment. The patient must be thinking of the problem for it to be treatable. Treatment can be blocked by a number of factors, including neurological disorganization, psychological reversal, and energy toxin systems. Therapy is designed to address all this. Energy psychologists and acupuncturists believe that the meridian, chakra, and aura systems underlie affect, and are affected by cognitive, emotional, sensory, and chemical events. Energy practitioners believe they are intervening at the most fundamental level.

The rate of success of these energy therapies increases when combined with eye movement desensitization and reprocessing (EMDR) psychotherapy.

Francine Shapiro developed EMDR in the late 1990's. Though applied to most disorders, EMDR is recommended particularly for treatment of traumatic memories and the mental, emotional, behavioral, and interpersonal problems associated with traumatic experiences.

In 1987 Shapiro noticed that as she thought about something disturbing, her eyes spontaneously made rapid movements from lower left to upper right, which seemed to cause the thought to lose its disturbing quality. Most people, however, need help in keeping their eyes moving to achieve the same effect. Shapiro developed methods by moving her hands and asking her patients to follow with their eyes. Subsequently other forms of bilateral, alternating

stimulation in addition to the eye movements have been used effectively, but eye movement has been retained in the name of the method. Shapiro noticed that most of the disturbing thoughts her clients reported were related to anxiety, so she used the word desensitization to describe the anxiety reducing effects of the eye movement. Shapiro added strategies to resolve symptoms further and taught her clients coping skills.

These are the following principles of EMDR: (1) People can heal themselves. Each person has a natural ability to process disturbing life events to the point where these events become simple memories; (2) the self healing system can become blocked or “stalled”; (3) blocked processing affects individuals in past, present and future time. (The unresolved past and present symptoms, then, interfere with future functioning. EMDR follows a three pronged treatment approach which involves healing the past, removing the present symptoms, and addressing possible future manifestations of the issue.) (4) EMDR reactivates the self-healing system with eye movements and other bilateral alternating stimulations.

The practitioner focuses on helping the patient: (a) pay attention to the past trauma as they notice the present resources available; (b) reactivate the self healing system; (c) with bilateral stimulation maintain and accelerate the self healing system as the patient revisits the trauma long enough to reprocess it adaptively; (d) allow the adaptive and accelerated processing to proceed in a positive, curative direction assisted by the self healing principle; (e) insure self healing remains active after EMDR and is available to manage future traumatic events. As patients revisit the traumatic past, they often report re-experiencing an event in its original form, with similar intensity, emotions, thoughts and memories. These “abreactions” surprise patients because of the unexpected intensity of the memory as well as other associated memories (called childhood folders). Abreactions are neither required nor evident in all EMDR sessions, but their appearance is sufficiently frequent that they compromise another principle of EMDR. This is why, practitioners claim, only professionals should be trained in this method.¹⁷

EMDR shares with psychoanalytic tradition the view that traumatic memories have not yet been incorporated into more reality-based perceptions and that treatment must be directed at updating earlier events, often from childhood. Behavioral terms are used frequently, but with a different

¹⁷ Ibid.

connotation. The EMDR assumption that past trauma needs to be re-experienced is at odds with the traditional behavioral focus on the present. The desensitization that occurs in EMDR refers to the reduction of negative emotions through confronting and reprocessing of traumatic memories. Shapiro emphasizes the cognitive aspects of the EMDR model. He implies that changes in thinking are more likely to precede and cause, rather than accompany or result from, changes in other aspects of functioning, such as emotional, sensory, imaginal or behavioral. In this sense EMDR is a cognitive therapy.

There is overlap between EMDR and other psychotherapies in terms of informed consent, history taking, use of homework, and follow-up. Rapport between therapist and patients is also seen as essential, though EMDR therapists are more likely to attribute treatment benefit to the EMDR method than to the therapist or the healing power of the therapeutic relationship.¹⁸

When good therapists integrate EMDR with their particular form of therapy, they increase their rate of success as well as shortening the duration of treatment. Andrew Solomon, after experiencing EMDR said, "I always came out of my EMDR therapist's office reeling (in a good way); and the things I learned have stayed with me and enriched my conscious mind. It is a powerful process."¹⁹

There exist strong relations between emotions and gestures, body postures, facial expressions, and eye movements. For example, smiling will generally produce a small increase in the sense of well-being. The EMDR therapy makes a patient focus on the past traumatic events in the context of the present. Although not explicitly part of EMDR theory, some of the eye movements coincidentally access the emotional connections to the traumatic event. Other eye movements are unrelated to the emotion, and because of this, as the patient concentrates on the traumatic memories, these become separate from the negative emotions that they triggered. It is not a question of self-healing, but a question of triggering, through eye movements, a different assortment of emotions. In turn these emotions can be dealt with easier than the original negative emotion that was being triggered. When it works, slowly, in a step-by-step fashion, the traumatic memory and associated mode of thinking is distanced more and more from the negative feelings.

¹⁸ Ibid.

¹⁹ Andrew Solomon, *The Noonday Demon*.

At the very minimum, the unexamined life can seldom be brought back to health without some close examination. A profound examination is almost always revealing. Intimate friendships and relationships help maintain health through these examinations. Therapists base their practices in listening closely and attentively while the patient gets in touch with their true motivations, so that they can begin to understand why they act and feel in certain ways. Many times naming something is a way of subduing it, and knowing the source of the problem can be useful in solving it. At least the therapies might teach some tricks to cope slightly better and improve the quality of life slightly. In some cases, isolation and depression are a vicious circle, and a therapist can help connect the patient with his friends and relatives and mitigate the severity of the situation.

It has been shown that therapy is not nearly as successful as medications for pulling people out of depression. On the other hand, therapy has a protective effect on recurrence, and is a good strategy for preventing a next episode. Less than half of depressives experience significant improvement with just medication; less than half experienced significant improvement with cognitive behavioral analysis (one of the most successful therapies for depression); yet more than 80 percent experienced significant improvement after being treated with both.

Most therapies are only as good as the therapist. The relationship between patient and therapist can be more important than therapeutic method. A deep, intimate relationship can probably help a lot by constructive conversations. In an important study done in 1979, research demonstrated that any form of therapy could be effective when both the patient and therapist acted in good faith, the patient believed that the therapist was good, respected and liked the therapist, and last that the therapist had an ability to form understanding relationships. The experimenters chose English professors with this quality of human understanding and found that, on average, the English professors were able to help their “patients” as much as professional therapists.²⁰

Finding the right therapist can be daunting. Andrew Solomon recounts his search for a new therapist after terminating with psychoanalysis. “I tried eleven therapists in six weeks. Some of the therapists seemed wise. Some of them were outlandish. One woman had covered all her furniture with Saran Wrap to protect it from her yapping dogs. I left when one of the dogs peed on my shoe. One man gave me the wrong address for his office, and one told

²⁰ Ibid.

me that I had no real problems and should lighten up a bit. There was the woman who told me she didn't believe in emotion, and the man who seemed to believe in nothing else. There was the cognitivist, the Freudian who bit his nails, the Jungian, and the autodidact. One man kept interrupting me to tell me that I was *just* like him. Several seemed simply to not get it when I tried to explain to them who I was." Solomon ends with this quote from Steven Hyman, "We try to do studies of drugs versus therapy. Have we done studies on bright therapists versus incompetent ones? We are really Lewis and Clark in this area."

Diet and exercise improve or lessen mood disorders. When the body becomes physically active, endorphins are produced, and endorphins make you feel better; good when you are normal, and less bad when you feel terrible. By pushing the body, the brain will follow and become more active, and thus the negative feelings are lessened. Diet cannot cause a depression to remit, but it can help to raise certain levels of neurotransmitters or hormones. Eating well can help reduce recurrences. For example, sugar and carbohydrates appear to raise the absorption of tryptophan in the brain, which in turn raises serotonin levels. As another example, dopamine synthesis relies on B vitamins, especially B12.

The evidence for beneficial mood effect from omega-3 fatty acids is the strongest of all, the theory being that food rich in B vitamins raises the level of omega-3 fatty acids.

Fluctuating levels of blood sugar, with highs and lows throughout the day, can produce depressive symptoms as part of a syndrome of adrenal exhaustion.²¹

Under certain conditions, hypnosis might help, and massages can improve moods slightly.

Optimism and even belief can be helpful. Anything that improves the symptoms of depression can be the beginning of the long spiral upwards in the return to normalcy.

Not all competing theories can be right, but some therapists maintain that apparently contradictory models of change may all have merit in different contexts, and that any aspect of human functioning can at one time be a cause, at another an effect. This is the main argument for why sometimes in one case a particular therapy works and in other cases it doesn't, or why a particular therapy works in some cases but not all.

²¹ Ibid.

The few times that my son Mitch tried to seek therapy, he quickly became disenchanted, because the therapist, whatever his or her orientation, was seeking the cause. As Mitch told me, “Dad, they are looking for some trauma that simply doesn’t exist.”

During the last three months of Mitch’s life we were together about half the time. I tried to convince him that he should give therapy a chance, that we could find the right therapy for him. I also believed that if he believed therapy could help him, it would, even as a form of placebo effect.

The week before he killed himself, he saw an EMDR psychologist three times. I talked to Mitch on the phone the day he left Carmel to go to New York. He said, “I saw a therapist and she says I am fine. She says that it’s a good idea to go to New York. I really am all right, Dad. Don’t worry.”

My wife and I talked to her after his death. She had diagnosed him as Moderately Depressed With Panic Attacks, Not Suicidal With Hypersomnia (trouble falling asleep and then oversleeping).

“Did Mitch leave a note?” she asked.

“No,” we shook our heads.

“So he was embarrassed to do so,” she commented casually, reflecting her great ignorance about suicide.

“Embarrassed?” I thought. “Embarrassed about committing suicide?” Even I, at that early point, felt and knew, it was absurd to talk about embarrassment within the context of taking one’s own life.

“In his last session, his levels of distress, as subjectively measured by a number of categories, on a scale of one to ten (ten being the worst), were at five.” She read professorially from her notes.

She ended by telling us she could have cured Mitch in two months. Almost in the same breath, also said she had never lost anyone to suicide.

“What a contradiction,” I thought, but didn’t argue with her. And then, unbelievably, she charged us for the hour. I feel this is what many therapists are all about: making sure they get paid for their hour

Mitch believed to the very end that his personal problems were chemical and that the right pill would solve his problems. The psychiatrists who prescribed different medications for Mitch, however, did not have a good track record in his case. During the last four months of his life, Mitch was self-medicating, following the prescriptions his doctors at UC Santa Barbara had given him more than a year and a half before. He led us to believe that he was under their supervision. I worried that the medications were not

working, but trusted Mitch's subjective judgment. I did discuss with him, on a couple of occasions in those last few months, that maybe we should go see a neurologist. They, after all, would know better than anyone what the existing chemical arsenal might do.

After Mitch's death, among the personal belongings he had with him in New York were several medications: Sudafed, Dramamine, Imodium, Doxycycline, Clonazepam and Paxil. Can the medications have a side effect that led to his suicide? According to his doctors at UC Santa Barbara, the answer is no, but undeniably, the medications alter brain chemistry.

I discuss his medications for the record, and except for Paxil, probably have no relation to suicide.

The Sudafed—probably because he had a cold. Dramamine, I speculate, was to prevent motion sickness on the flight out to New York.

Doxycycline, for his acne. He had seen a dermatologist to treat his face. Doxycycline is a broad-spectrum antibiotic. It is used to treat many bacterial infections in different parts of the body. At one time, he had convinced himself that he was depressed because he had bad pimples. A few years back, he had insisted that he didn't like to look at himself in the mirror, a habit that he seemed to continue, as confirmed by Katie, probably until his death. Katie told us that, "I thought it was eccentric; he avoided mirrors, flipped pictures of himself so his image wouldn't be seen. I didn't think it was anything serious." He had taken twenty-one 100 mg pills since he picked them up at the pharmacy on October 8. He died on November 12, thirty-five days later. I don't know if or how many he had left from previous prescriptions. One of the possible side effects of Doxycycline is diarrhea. That would explain the Imodium.

Clonazepam (Klonopin) is an anticonvulsant, and has a similar profile to other anxiolytics/sedative benzodiazepines. It is used for short-term relief of mild to moderate anxiety, and it may also be used to treat panic attacks, drug-induced mania, nocturnal myoclonus, bipolar affective disorder, and to help control different kinds of seizures. He had taken 12 of 30 pills since he had picked up the prescription on August 23. On average one pill every four days for the last fifty days of his life. This seems to indicate that he felt he had his anxiety under control most of the time, but obviously the anxiety was present and recurring.

Paxil is a serotonin selective reuptake inhibitor (SSRI). The half-life of Paxil is between twenty-two and twenty-four hours. It is generally recommended in daily doses of 10-50 mg, and a steady state concentration in the blood is achieved about seven to fourteen days after starting the

medication. This medication is approved for treatment of depression, anxiety disorders and panic attacks. Mitch had taken 19 of 30 pills since he picked up the prescription on October 1. The pills were 20 mg dosage. However, there were two pills broken into halves, which seem to indicate that he was taking a half-pill daily, or ten mg per day. He lived forty-three days since the time he picked up his prescription, and thirty-eight daily dosages dovetail nicely with this time frame. Mitch probably convinced himself that he wasn't as sick as before, so he took 10 mg dosages; as opposed to 20 mg he had been prescribed twenty-one months previously.

In general, these mood drugs take one or two weeks to kick in. The phase of recovery can last a long time. Many psychiatrists feel that this is a dangerous time, because during the worst of a depression, the patients generally don't have enough energy to feed themselves, much less kill themselves, but in this emerging period they have enough energy to carry out a suicide. According to my research, rising levels of serotonin can increase aggressiveness, which certainly fits into the special-case suicide where anger, as the other side of a panic attack, is a part of it.

It is important to understand that the lack of suicidal thoughts does not always mean that a person is risk-free of suicide. Likewise, suicidal thoughts don't always lead to suicide, even though sometimes they do. Mood disorders increase the risk of suicide as well as suicidal thoughts. Andrew Solomon, deep in depression, recounts, "I was also aware that if I didn't allow myself the relief of considering suicide, I would soon explode from within and commit suicide. I felt the fatal tentacles of this despair wrapping themselves around my arms and legs. Soon they would hold the fingers I would need to take the right pills or pull the trigger, and when I died, they would be the only motion left. I knew that the voice of reason was the voice of reason, but I also knew that by reason I would deny all the poison within me, and I felt already some strange despairing ecstasy at the thought of the end."²²

Many people don't like depending on the drugs, or stop taking them to avoid side effects in an effort to feel normal again. Any good psychopharmacologist can confirm that going off drugs should be done gradually and under supervision. And some people have to take medication all their life.

The medications available to treat mood disorders are addressing some neurotransmitter deficiencies, and producing their benefits in a roundabout

²² Andrew Solomon, *The Noonday Demon*.

way. In some cases they work better than in others, and in some cases they don't work at all. About eighty per cent of patients are responsive to these drugs. However, only about fifty per cent respond positively to the first drug they are given. Good psychopharmacologists obtain the best results using an individually tailored cocktail of medications and managing carefully the side effects.

Andrew Solomon candidly reports, "I have had some sexual side effects—a slightly decreased libido and the universal problem of a much-delayed orgasm. A few years ago, I added Wellbutrin to my regimen; it seemed to get my libido running again, though things have never come up to old standards. My psychopharmacologist has also given me Viagra, just in case I get that side effect, and has since added dexamphetamine, which is supposed to increase sexual drive. I think it does but it also makes me twitchy. My body seems to go through shifts beyond my ability to discern, and what works splendidly one night may be tricky the next. Zyprexa is sedating and I mostly sleep too much, about ten hours a night, but I have Xanax around for the occasional night when I am assaulted by sensation and cannot get my eyes closed."²³

In Mitch's case I failed. I failed because I didn't understand other doctors and therapies could make a huge difference. But the medical community failed too because it did not educate Mitch or us about the potential dangers of his condition. Because it did not, I went about it slowly; after all who was I? The discoverer of the secrets of the brain? I read a book here and there. A book on memory; two on emotions; another on consciousness; one on the symbolic faculties of man; on neurons and receptors; several on artificial intelligence; even Pinzer's "*How the Mind Works*". Little by little, I gained trickles of knowledge, layers peeled off. Some insights I found led me in a new direction, a grain painfully added here, another over there. Slowly, too slowly for my son and me, I learned odds and ends; little bits and pieces of the puzzle.

I had no sense of urgency as I went about my search. I was calmed by the illusion that my son's problems were not too bad, that soon, as before, they would go away; that he was almost O.K. I believed, for the most part, he was a fine and healthy young man with a little turmoil once in a while, disturbing enough in itself, but then, almost as quickly as it came, it went. I had run out of time. Suddenly, he committed suicide.

²³ Ibid.

March, only four months after my son had killed himself, I was walking the streets of New York, perhaps the same street he walked forty-five minutes before his life ended. I wondered if he had paid attention to anything around him, because there, occupying the whole block on East 77th, between Lexington and Park, stood the Lenox Hill Hospital. “Why,” I asked myself, “why didn’t he walk into the emergency room and ask for help? Why hadn’t I thought of that when I last spoke to him?”

When a person suffers a sudden mental disturbance, it is termed a psychiatric emergency. Psychiatric emergency is a life-threatening event, just like a cut artery, a smashed limb or a bullet wound.

The problem, of course, becomes one of knowing or being able to identify a potential suicidal situation. If it is you suffering through this, the problem is whether you remain rational enough to know this and ask for help.²⁴

Edwin Shneidmann has defined suicide as “the conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which the act is perceived as the best solution.”²⁵ This implies that suicide is not a random and pointless act. In that I agree; but it is not a rational (conscious) act either, at least in a small percentage of individuals. For some individuals, suicide is not a preplanned action; it is the first and, because they act on it, the last suicidal impulse, with no time to ask for help.

If one goes to the emergency room, one will probably end up at the hands of a competent physician. Care should be given to specifically request a psychiatric consultation. Keep in mind that in emergency rooms psychiatric records are generally not available to check any previous history. If another physical condition exists, like a broken bone for example, the standard approach in the emergency room setting does not deal with psychiatric aspects of somatic illness. In general, most staff at the emergency room is not equipped to deal with an added psychiatric complication.

In the case of mental disorders, there is a bigger risk that something can go wrong because of the uncertainty of the physician’s own knowledge of the subject. The most probable action is a quick assessment of your degree

²⁴ Susan Rose Blauner, *How I Stayed Alive When My Brain Was Trying to Kill Me*, has all sorts of advice on how to help you avoid suicide.

²⁵ Harold I Kaplan & Benjamin J. Sadock, *Synopsis of Psychiatry*.

of suicidal risk and appropriate action. ER staff will ask you your age, sex, marital status, employment, educational and social background and so on. They will ask you to verbalize your suicidal intentions and they will ask you about life crises and previous mental disorders. They will probably sedate you and try to stabilize you to the point that you can't act on your impulses, even if you wanted to. They might put you under surveillance and in special rooms to prevent further possible acting out of suicidal tendencies.

A psychiatrist will be called. He or she will try to do a complete psychiatric history; try to talk to friends and relatives to have a better assessment. Nurses will try to reduce psychological pain by modifying a stressful environment; if possible by enlisting the help of a spouse or friend. The psychiatrist will attempt to build a realistic support by recognizing that the patient may have a legitimate complaint and offer alternatives to suicide.

Once a diagnosis is reached, medications will be given as needed, sedatives, antidepressants, antipsychotics or mood stabilizers. You will be interned in the psychiatric ward until considered stable enough. Individual, group and family therapies will be provided; you will receive the hospital's social support and sense of security. If they discover other underlying problems like alcoholism or some organic sickness, they will try to address those, too. They will repeatedly search your belongings and person to eliminate exposure to dangerous or potential injurious self-inflicting objects. The treating team must decide how much to restrain you and how often should you be checked or be under continuous observation.

In extreme cases they might determine that Electroconvulsive therapy is necessary for severely depressed patients. This might require several treatments, and can be quite disorienting, affecting memory, sometimes permanently.

Once the patient is considered stable enough, a medical and therapeutical program should be initiated and followed aggressively. The hospital can be a sanctuary, where the familiar surroundings of everyday are removed and an oddly gratifying sense of stability and isolation can be found. Even the continuous piercing of sirens and the sound of commotion can be stimulating, as a constant reminder that one is in a cathedral of sickness trying to join the healthy.

Sometimes, however, the best efforts to recognize suicidal tendencies in one self or others, fail.

Patients recovering from a suicidal depression are at particular risk. As the depression lifts, patients become more energized and are thus able to put their suicidal plans into action.

A patient may commit suicide even when in the hospital. According to a study, 1% of suicides occurred in general medical-surgical or psychiatric hospitals; however, the annual suicide rate in psychiatric hospitals is only 0.003 percent.²⁶

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In our basement in Carmel, Mitch had set up his electric organ, along with a computer with software that can play any instrument if you program it correctly and provide it with a musical score. In this way he could compose by writing a score or by playing it on his organ. He also had a microphone hooked up so he could sing along. Tacked on a wall, next to his PC, was the following sign:

Persistence

I will persist until I succeed.

I was not delivered unto this world in defeat, nor does failure course in my veins. I am not a sheep waiting to be prodded by my shepherd. I am a lion, and I refuse to walk, to talk, to sleep with the sheep. I will hear not those who weep and complain, for their disease is contagious. Let them join the sheep. The slaughterhouse of failure is not my destiny.

I will persist until I succeed.

The prizes of life are at the end of each journey, not near the beginning; and it is not given to me to know how many steps are necessary in order to reach my goal. Failure I may still encounter at the thousandth step, yet success hides behind the next bend in the road. Never will I know how close it lies unless I turn the corner. Always will I take another step. In truth, one step at a time is not too difficult.

I will persist until I succeed.

*So long as there is breath in me, that long will I persist. For now I know one of the greatest principles of success: If I persist long enough, I will win,
I will persist! I will win!*

—*The Scroll Marked III*

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With some diseases persistence is not enough.

²⁶ Ibid.

The brain creates a visual map of the outside world and integrates it with the map of the body and thus achieves the trick of moving through space. Similarly, the brain is trying to create a continuum between all outside events and the internal emotional landscape, in a way that produces precisely the correct emotions to guide the best responses according to the circumstances. Under certain conditions, emotions go awry. Understanding how this happens is necessary if we want to understand suicide.

Some of the details of specific suicides are ultimately unknowable. No one is there to record the last few moments of a life snuffed out in an act of suicide. But even if one were present as a silent witness, in all probability the suicidal individual could not convey or communicate properly his emotions or rationalizations.

In the case of Mitch, as in most others, I can only speculate, but intellectually it seems reasonable to assume that certain factors presented themselves simultaneously and each one of them contributed to the final result. Any one of them alone, or even in combinations of two or three would not lead to suicide.

Mitch flew to New York on a Wednesday in November; he died the next Tuesday. A series of external stressors might have been added to his internal demons. Jet lag might have been one of the factors; short winter days; the weather was cold and cloudy the day he died; he had slept badly, or not at all the night before; he probably suffered a major panic attack the night before, and again that day; his pimples (he had with him medication for his skin) were acting up.

Added to this: his hopes that his simple, quick solutions to his problems were dashed, and in his state, became huge obstacles that could never be overcome; finding a path like everyone else (he was still confused about a Master's degree in Spain, his music career, making money); getting back together with his girl friend as a solution to his emotional instability was not happening; side effects of the medication; self medicating and taking the wrong dose of Paxil (I am pretty certain he was taking 10 mg per day instead of the 20 mg of each pill, which was the dosage he had originally been prescribed, but it is also possible he was taking the right dosage, 20 mg, every other day, but Paxil needs to be taken daily.²⁷); the Paxil itself might have produced suicidal behavior as a side effect; and last, perhaps, Mitch had too many available choices.

²⁷ Armand M. Nicholi, Jr., M.D. Editor, *The Harvard Guide to Psychiatry*.

Mitch had complained to me that there were no good-looking women in California, which is absurd, and after my return from Europe, I gave him a picture of a beautiful young Spanish girl who waited on us at her parents' restaurant in San Sebastian, partly as a joke, partly as motivation to get him back on track for going to Spain to pursue a Master's. A couple of days after his death, I was sitting on his bed, and there on the night table next to the bed, was the picture of the beautiful girl I had given him. It was as if he thought that being in love might be part of the answer to warding off depression.

It has not been proven conclusively, but at the time of this writing, many antidepressants are now thought to contribute to suicidal behavior, especially in children and teenagers. The F.D.A. has mandated a suicide caution label for ten antidepressants: Prozac, Paxil, Zoloft, Effexor, Celexa, Remeron, Lexapro, Luvox, Serzone and Wellbutrin. All of these medications affect the levels of serotonin. Some side effects might be agitation, anxiety and hostility.²⁸ Mitch was definitely suffering agitation and anxiety, and these symptoms, as best I can determine, were coincidental with his use of Paxil. But, it must also be said that he took the Paxil to alleviate his anxious feelings. This is the argument presented by the drug companies: depressed people have the highest suicide risk, and depressed people take antidepressants; consequently, the depression leads to suicide, not the medicine.

With my brain research I can explain how, under certain conditions, rising serotonin levels not only increase aggressivity and compulsivity, but can be part of the activation mechanism of belief systems—in this case, a belief that suicide is a way out for depressed people.

Suicide rates among the young have been increasing in the last fifty years. The use of antidepressants has been increasing, perhaps indiscriminately. The pressure on the F.D.A. to put warning labels on antidepressants is coming from concerned parents, who even though they can't prove it, feel that their children's deaths might have been caused by the antidepressants. A warning label is a minimum precautionary action. Yet, if the warning symptoms are the reason for taking the medication, once you read the warning label, how do you attribute suicidal behavior to the medication? If agitation, anxiety and hostility are symptoms that were not present originally, and appear coincidentally with the ingestion of the antidepressant, then, these might be considered warning suicidal signs.

²⁸ The Associated Press, *F.D.A. Seeks Suicide Caution for Ten Antidepressants*, NYTimes.com, March 22, 2004.

In a recent study sponsored by the National Mental Health Institute comparing cognitive behavioral therapy and drug treatment (Prozac) for depressed adolescents the following was found: 71 percent who received Prozac and therapy responded well to treatment compared with 61 percent who receive Prozac alone, 43 percent who received talk therapy alone and 35 percent of those who received a placebo treatment.

The study also found that patients became significantly less suicidal, no matter which treatment they were given. No patient committed suicide during the trial. But the risk of a suicide attempt among patients given Prozac was twice that of those who did not. There were five suicide attempts among those given Prozac and just one among other participants.

In another study comparing Zoloft, an antidepressant similar to Prozac, with cognitive behavioral theory, in teenagers suffering from obsessive compulsive disorder, it was determined that those that received talk therapy improved more than those with the drug.²⁹

On a more general level, and probably not pertaining to Mitch, the increasing rates of depression, especially among the young, have been attributed to a number of causes, most pertaining to our modern life styles, but have not been proven conclusively: the quickened pace of life, the technological changes that accompany this, Nintendos and the internet, the isolation of people from each other, the breakdown of the family, the endemic loneliness, the failure of our belief systems (religious, political, social or moral),³⁰ the splintering of society into ever more finer special minorities. All of these are big stressors, especially among the young. Alvin Toffler would call it Future Shock. He discusses in the book with the same title, the increasing rate of change of everything around us as technology leads us into a manic environment with a frenetic pace.

The increasing reliance on medications to solve emotional problems (that in all probability are healthy and need to be worked through) can also be a factor, because as soon as the medication is taken, the emotional maturity that is supposed to be developed is warped.

The increase of suicide among the young, starting in the 1950s through the 70s and continuing on till the present, concurred with the appearance of television and could be indirectly related to it in that young children and adolescents spend more time interacting with the tube rather than socially.

²⁹ Gardiner Harris, *Antidepressant Seen as Effective in Treatment of Adolescent*, New York Times, June 2, 2004.

³⁰ Andrew Solomon, *The Noonday Demon*.

Mood disorders are generally accompanied by sleep disturbances. Since the invention of television, the average time people spend sleeping has gone down by as much as two hours. Perhaps, the decreased patterns of sleeping, and not the increased television viewing, are contributing to increases in mood disorders, particularly among the young.

Coinciding with the advent of television, we have the introduction of the pill, and reduction of the average family size. Can fewer siblings, or loneliness be part of the puzzle?

There is probably a deep connection between stressful events and the triggering or worsening of psychiatric illnesses. And under the right conditions, this might well play a role in suicide. Stress has a profound effect not only on the immune system and production of stress hormones but also on the sleep-wake cycle, which is normally affected in mania and depression. It has been demonstrated that psychological stress, certain medications and illnesses, and significant changes in light and temperature can interfere with circadian rhythms.

Stress is also directly related to time of recovery, and the longer the period of recovery, the more extended is the period of vulnerability for suicide.

Prejudice has also been suspected as causing higher rates of depression, as this increases self doubts, undervaluing of people's lives, and ultimately, despair in the face of hatred.

High levels of stress, particularly as those faced by small groups of people living in ancient traditions under the realities of the modern world, such as African tribal communities, Amazonian tribes, subsistence farmers that are being forced to join larger nations, nomadic cultures that are being urbanized, generally present high levels of depression. Even in traditional settings, depression has always been high among such people as the Inuit of Greenland, and suicide rates, in some areas, can be as high as thirty-five per ten thousand.

Children of depressed people, not only because of possible genetic susceptibility, suffer higher depression rates. The earliest signs of childhood depression, in infants as young as three months, primarily occur to the offspring of depressed mothers. It is also a well known fact that depressed mothers are usually not the best mothers to begin with.³¹

Depressed and manic depressive people function quite well between bouts, but the repeated assaults slowly undermine the mind's flexibility and ability to adapt.³²

³¹ Andrew Solomon, *The Noonday Demon*.

³² Kay Redfield Jamison, *Night Falls Fast*.

Talking therapies have been proven to be good at keeping depression at bay, and recurrences at a minimum. Good, close, intimate friendships are increasingly more difficult to come by, especially during the formative years of high school and college. Intimate friendships might be part of the solution to avoid depression. Friendships, through sharing of dreams, fears and joys can be more beneficial than therapy—depression can be caused by loneliness. Friendships and family, through love, can be a most wonderful thing and the best medicine. The old man told me, “When you find love, hang on to it. You never know how long it will last.”

I think most would agree that our present world and way of life is increasingly stressful. The lesson is simple; the more stress, the more depression; the more depression, the more suicide.

People suffering psychotic episodes and schizophrenia, though less frequent in the general population, and with lower rates of suicide, are the other important group contributing to the suicide statistics. Most of what has been mentioned that applies to depression and manic depression applies to schizophrenia.

I have not addressed people suffering from personality disorders, which are also at risk for suicide, because they are a small percentage of suicides, perhaps three per cent.

Kay Redfield Jamison, close to the end of the epilogue of her book on suicide, *Night Falls Fast* says, “I have been impressed by how little value our society puts on saving the lives of those who are in such despair as to want to end them. It is a social illusion that suicide is rare. It is not. Certainly the mental illnesses most closely tied to suicide are not rare. They are common conditions, and, unlike cancer and heart disease, they disproportionately affect and kill the young.”

The Cost Of Ignorance

A few weeks before Mitch died, he and I were in the office where we run our business. His face showed a few pimples, it wasn't terrible, but I had never seen it so bad. He was fidgety and seemed unable to finish tasks assigned to him. He answered the phone, talked to a customer. He said to me as he covered the mouthpiece, "Someone wants to order a belt."

"Take the order and get a credit card number and expiration date."

He proceeded to do so, but he acted like this was the first time he had ever done this. When he finished, I said, "Fill in the order and invoice it and run the credit card through." This was something he knew how to do, as he had done it many times previously. Although he had finished packing the belt, he seemed confused. He couldn't find the piece of paper where he had written down the order and credit card number. I couldn't find it either. We turned the office upside down. Eventually, we found it under another box that had also been prepared for shipping. He said to me matter of factly, "I can't concentrate, there are certain types of jobs that I won't be able to do. I'll just have to look for a job that doesn't require thinking."

"Mitch, you can't go through life losing things like that. You need to discipline yourself to be more organized," I admonished. He seemed to grin back at me. "I am serious, Mitch. Do you like to be losing things all the time?"

"I feel very anxious while I am looking for things, but I feel good when I find them. Sometimes I wonder if I lose things so that I can recover them, because this is the only time I am happy," he said matter of fact, even mildly surprised that I didn't see this.

"Mitchell, you need therapy. You are not well. I can't be employed today as a bird watcher because I can't look up," I said in reference to the damaged disk in my neck that was forcing me to hold my head down and to the left to avoid pain in my right arm. "I need to work on getting myself well, not on just giving up and looking for a job where I can hold my head down all day. It's the same with you."

"I don't know, dad. I've gone over this with you before. Those guys are always looking for some trauma. There is none. I think its all chemical."

“To quit smoking, I had to work for twenty days. It wasn’t easy. It takes time to change your brain. I still feel like smoking occasionally. That is how therapy works; little by little it will affect small changes. Have you been taking your medicine?”

“Yes. That is helping. I’m okay. Some days are worse than others. Today is just a bad day.”

“I wish I could convince you to try some therapy. Remember the doctor in Mexico told us that therapy and medication combined is the best way to do this,” I said. I felt that eventually he would decide voluntarily to seek therapy.

“I’m okay. Don’t worry,” Mitch said with a smile. I looked at him and despite his words and smile, I still worried. I hoped that he would be better tomorrow morning, as had happened before.

I didn’t know better.

~

On October 28, 2002, my son Mitchell wrote the following on one of my office computers. At the time he was working part time in the family business, so it could be the normal ruminations of a young man with problems. But perhaps . . . it is a message. My wife and I had gone to Acapulco on October 26, just a couple of days before he wrote this. That week he saw a psychologist three times. Maybe this was part of a therapeutic process. We returned on November 6 the same day that Mitch went to New York City. He died there on November 12. It is a brief recounting of his illness:

Mitchell’s New Life

As far as I can remember the feelings of anxiety began in High School. Towards that final year I began to get fearful symptoms of panic. I felt that it was directly related to mathematical thought. I would do mathematics and physics and the analytical thought would send my mind into a whirlwind of fear and panic. That was when I first decided to seek out some professional help. I went and saw a few people and they prescribed some medication. This was around the time that I had gone through my first real breakup. There were many emotions at that time and many uncertainties. Many days would pass when I felt hopeless and with my mind in a dark state. I was able to get into UCSB and Cal Poly as a mechanical engineer. I worked as a salesman that summer and decided to travel to Costa Rica and Portland. I read

many books and decided that I would change my path of wanting to become an engineer. That was around the time when I met Katie. She was wonderful because she made me see the world in a completely bright way. The first year away at school I took quite a heavy load the first quarter but most of my subjects were social sciences. I spoke with Katie often on the phone. We supported each other in our insecurities and drove each other forward. That second quarter I tried to take more mathematics and I did quite poorly but was able to do quite well in my other classes. The panic would come and I would try to fight it off in whatever manner possible. Usually reading and writing would get my mind going to the point where I could stop it from getting too bad. Toward the end of that year, I was having more trouble sleeping and the symptoms seemed to get worse. I had remembered the year previous and my travels; I felt that was the solution. So I packed up and went off to Europe. I seemed to have moments when I was all by myself and feeling very panicky and indecisive. There were other times when I felt strongly motivated to create and write and paint. It seemed as though the panic would come and I would write. There were many times when I would write for long periods of time and it would get my mind from getting to that point. There got to a point where the writing did not seem to help. When I would get like this I felt as though people could see right through me, and I was afraid of people when I felt his way. When I got back I started building a lot of things. That seemed to be like writing but even better for my state of clarity. I would build lots of things—chairs, ramps, and tables—and then I decided to take a job in Construction. This seemed to be new and wonderful. All of those feelings seemed to disappear. When I went back to school that next year, I took a part time job in construction and continued my undergraduate studies. Katie moved to Santa Barbara and things seemed to start anew and I was in great shape. I would awake feeling strong and motivated and go out and face the day. We were great teammates, Katie and I, and we made it well through that year. Toward the end I had decided to major in Mathematics so I decided to take computer science and upper division mathematics. Most of this was motivated by my father having always pushed engineering on us boys because he felt that most of the wealth he had created was done so through his mathematical mind. And I was poor at school and felt that if I could only change my condition that I would be able to be financially independent. Those classes seemed too rigorous to continue working in construction

so I decided to quit that job and focus on school full time. That was around the time that I had trouble focusing and my work started to fall behind. I finished the quarter poorly but I was realizing that my friendships at school could usually pull me through the tough times. And of course, Katie was still by my side. That summer I took a job in construction and I did that for a month until I felt completely defeated and like I was completely wasting my time. I decided to start working for my parents' company. I did data entry for a month and went off to Vegas for two weeks. That following year I found a place in Santa Barbara and continued with the mathematics but also taking some mechanical engineering classes. I did well that first quarter and my mind felt strong. The graphic design part of the engineering seemed to make my mind quite resolved. I spent a lot of time with Katie and a lot of time skateboarding. I was doing fine until after Christmas. The mathematics got to upper division and I started to get the attacks bad. I was fine for about a month. Each day wore away my mind a little more until it got to the point where I could not sleep or eat much of anything. I withdrew from two of my classes and changed my major to International Studies. I began working part time in a machine shop and I finished the year strong and was studying philosophy, music and international studies. That was when I started to see someone and I began taking the medication. It seemed to kick in when I was studying and it made me tired instead of panicky. That summer I tried to start my own dune buggy business and I took some time apart from Katie. I got myself a dog and felt that the problems between Katie and I could be solved by getting a dog. That next year I continued taking the medication and I continued in school and working at the machine shop. I decided to focus all of my attention on school and was able to pull it off this time. However most of my classes were social sciences. I took four classes that winter and five classes in the spring. Katie had gotten into graduate school after Christmas and she decided she would go to New York. I decided to apply to school in Spain and also look around for a real job. I was accepted to Spain and I got a job in Engineering. I felt that I was now able to cope with analytical subjects due to the medication. I felt that an income was much more important than school in Spain so I decided to take the job. I was living all alone with my dog and I was doing work in a cubicle with my computer and my work from 8:00AM until 5:00 PM. I started missing Katie unbearably. I tried dating for a while and was having little luck. I

would go to work and feel like I was going to start crying in sadness of missing Katie. A real sense of depression seemed to set in and I felt as though nothing really made it go away. That was not the worst part. I hardly had any friends in the area so I began to take trips to the Lake with a friend Chuck. The mathematics of the job started making me feel the panic and it was getting worse by the day. By about the fifth week on the job I was losing sleep, starting to realize that I could not do the job, I did one more week and decided to call it quits. I came home and started working out and helping Marne in the office. If I felt panicky I would go for a walk or a run and it seemed to get better. Lately it seems as though I've been going through really heavy ups and downs. Some days I feel all right and as though I'm moving forward in my own strange way and other days I feel as though all I can do is wait until bedtime to save me from the agony that I am feeling. It seems to be an uncontrollable wave of emotions that is some days all right and other days really bad. I am taking the medication quite regularly and feel as though there is nothing for me to really do here on this property. All of a sudden I feel the panic set in and I feel like I need to lie down and just do nothing. It is quite silent out here in this valley and it leaves my thoughts to wander in my head. I busy myself down in the office but my mind seems to be worn down. I feel as though Katie lies at the bottom of many of my emotions and aspirations. She was my teammate and companion. From this information, I am trying to tie together a new plan, which would get me going in a positive direction.

My mind can put together ideas—words, thoughts, complete places, and groups, times, locations, classes, people, and images. My mind can process but causes panic state: Numbers, computations, thoughts which [lead to panic are] a computation to be processed.

Photons stimulate receptors in the eyes in the movement of ions across the membranes of those receptors. Impulses are transported along the optic nerve to the lateral geniculate, a way station to the journey of the occipital cortex. At this point, billions of other neurons come into play. Involving language, memory, imagination, curiosity, pleasure and so on.

Plan 1: Graduate school.

The following programs are available at the University of California in Santa Cruz:

Anthropology

Applied Economics and Finance

International Economics

Psychology

In order to attend graduate school, I must first take the GRE test.

I must also receive three letters of recommendation.

Plan 2: Teaching

*I could finish the one English class that I need in order to receive my
BA and enroll in getting my teaching credentials.*

*MPC Telephone: 831-645-1357—call them and get the info for taking
an English class in the winter.*

2 appointments tomorrow.

~

In December the University of California at Santa Barbara sent my wife and me a letter telling us that the flag would be at half-mast in honor of Mitchell on December 16, 2002. A couple of months later we received from UCSB Mitchell's Diploma; they decided that he should graduate posthumously, even though he was missing one half-course. When we saw his name on the diploma my wife and I broke into tears. We are grateful for this gesture, but what are we to do with his diploma? What good is it to Mitch?

I still cry every time I think of what his future might have been.

~

In Paris with my wife in September 2002, we visited the D'orsay museum. I reached the section with a self-portrait by Van Gogh, the one in which the artist is wearing a jacket and vest of almost the same color as the wavy greenish-blue background. I was immediately struck by the resemblance of Van Gogh to my brother-in-law Mitchell. I stood there fascinated, looking into the eyes of Van Gogh. If Mitchell had lived another decade, he might have looked very much like Van Gogh in his later years. I didn't mention anything to my wife, as sometimes she becomes sad at the memory of her lost brother.

At lunchtime we went to one of the museum's restaurants. We sat down and shortly found ourselves engaged in conversation with an older American couple sitting at the table next to us. They were celebrating their fiftieth wedding anniversary. They told us they had spent their honeymoon at this place when it was the D'orsay Train Station-Hotel. When they found out that we lived in Carmel they asked, "Have you heard that Van Gogh's table is going to Carmel?"

“Van Gogh’s table?”

“Some people bought the house, the café Ravoux, where Van Gogh died, and they turned it into a restaurant. The table that Van Gogh used to sit at and have his dinner was still there. The owners of this new restaurant decided to train a chef to make the country French cuisine that Van Gogh ate and charge extra for sitting at Van Gogh’s table to have dinner. Eventually this table along with the chef was sent to visit other cities. I think the table has gone to New York and Miami. I just read in the papers that it is going to Carmel!”

“We haven’t heard anything about this. It sounds very interesting, we’ll look into it.” I have to admit that we promptly forgot about it until months later.

One month exactly after my son Mitch died, on December 12 and 13, I had very vivid images of my brother-in-law Mitchell. Although I had not seen my brother-in-law in twenty-three years, in my mind’s eye it was as if I had seen him a few hours before. For two days, these very clear images of Mitchell continuously intruded into my consciousness. I could see my brother-in-law more clearly than I could my son. The next day, a Saturday, I received a phone call from Sheila, a dear friend of ours.

“Fred, how are you? I was calling to see if you and Pat would like to join us this afternoon for some wine tasting in the Village.”

“Sure. We’ll see you in a couple of hours.” I replied.

A few hours later, after a short drive through Carmel Valley, I found myself watching Sheila’s husband Gaston animatedly speaking French with a couple of men. As I approached them, Gaston saw me and smiled, “Fred, let me introduce you to the Chefs of Van Gogh’s Table. They are going to be working here in Carmel for the next couple of months.” He then proceeded to explain to me what I already knew. “Why don’t you join us tomorrow at Casanova’s where we are having an open house to introduce Van Gogh’s Table to our friends.” And so it was that the very next day I came to be sitting at Van Gogh’s Table.

After eating at Van Gogh’s table, as soon as I got home, I opened one of my Van Gogh books, looking for the self-portrait that I had seen a few months before at the D’orsay. When I randomly opened the book this is what I read:

In a letter from Vincent to Theo his brother, “. . . *There is a figure in it, the figure of the flag bearer, in the extreme left corner, right against the frame—that figure is in grey, from top to toe, I shall call it pearl-grey—of a peculiar neutral tone, probably the result of orange and blue mixed in such a way that they neutralize each other—by varying that keynote, making it somewhat lighter here,*

somewhat darker there, the whole figure is as if it were painted with one same grey. But the leather boots are of a different material than the leggings, which differ from the folds of the trousers, which differ from the waistcoat—expressing a different material, differing in relation to colour—but all one family of grey. But just wait a moment!

Now into that grey he brings blue and orange—and some white; the waistcoat has satin bows of a divine soft blue, sash and flag orange—a white collar.

. . . But that orange blanc blue fellow in the left corner . . . I seldom saw a more divinely beautiful figure. It is unique.

. . . “The Syndics” is perfect, is the most beautiful Rembrandt; but “The Jewish Bride”—not ranked so high, what an intimate, what an infinitely sympathetic figure it is, painted d’une main de feu. You see, in “The Syndics” Rembrandt is true to nature, though even there, and always, he soars aloft, to the very highest height, the infinite. But Rembrandt could do more than that—if he did not have to be literally true, as in a portrait, when he was free to idealize, to be a poet, that means Creator. That’s what he is in “The Jewish Bride.” How Delacroix would have understood that picture. What a noble sentiment, infinitely deep.

One must have died several times to paint like that, how true it is here. As to the pictures by Frans Hals—he always remains on earth—one can speak about them. Rembrandt is so deeply mysterious that he says things for which there are no words in any language. Rembrandt is truly called magician . . . that’s not an easy calling . . .

The words, “*One must have died several times to paint like that*”, and “*is truly called magician . . . that’s not an easy calling . . .*” kept reverberating in my head. They described Mitchell so well.

I thought about how happy Mitch was last Christmas when he came home. He made some pastels to give one each to his mother, his brother, his girl friend, and me. Each one is interesting, because they all have a poem inscribed on it. Part of the poem in his mother’s pastel read:

*Imagine a distant past,
Learn to live it and not to perish
Under its burden.
Far away, a bright twinkle
Promises safety.*

Pat wanted to have copies made of Katie's pastel and another painting of two cats Mitch had given her, so she called our friend Andre Balyon. A Dutch master painter, Andre paints realistic landscapes.

Having volunteered to help us make the reproductions we wanted, Andre came to our house for dinner to pick up the paintings. When I told him of my recent experiences with Van Gogh, Andre informed me that he and his seven brothers, all painters, were all born practically in the same place as Van Gogh, at Groot Zundert, a small village near the *Belgian* border. He went out of his way to tell me how much he dislikes Van Gogh.

Andre also recalled when he first met Mitch as a ten-year old. When we moved to Carmel, Andre was our neighbor. "Mitch walked up to my house and without any preamble asked me, 'Are you the famous painter my mother knows?' It seemed he was perfectly at ease talking to me, like we had met before and were good friends."

I found many coincidences and things in common between my son Mitchell, his uncle, after whom we named him, and Vincent. They all were green-eyed redheads, all died young, they never married or had children. And then, of course there were many more things they didn't have in common. But I found comfort in making, inventing and finding these connections. It connected me through time, into the past, and the connections to each one, reinforced my connections to my son—in my mind. And like the posttraumatic visions that I had of my son that felt like real events, the emotional intensity of these imaginings made me feel better by making my connections to my son more real.

Ultimately, the strange thing is that love doesn't die when a person dies. The love, particularly the love for our children, continues in us, the living, unabated, through time. It is this love that strives to remain connected. My mother-in-law told me it took her eighteen years to stop crying every day for the loss of her son. I still have many years to go. I am today, almost O.K. But I lost a son, so I am never, really, ever O.K. We were both, Mitch and I almost O.K. Yet, I live and he died. There is such a small difference between life and death. I pretend I'm O.K. and I thank all my friends and family for letting me do that.

Why We Commit Suicide

I have related some experiences that show some of the brain's incredible innate talents, like Tonito's ability to predict rain. I described how some activities, like becoming an expert bungy-chord jumper, can be automatic and second-nature. I have described how an irrational act, such as jumping off a ladder eighteen feet off the ground, can be done just to avoid an immediate problem, without any thought as to what happens next. I have shown you how incredibly complex life and death decisions are reached instantaneously as in the story of the tsunami or when I was in the bar with the gunmen. I told you a story of an airplane accident that illustrates how small errors accumulate and lead to tragic results, when any one of those errors, or even a few of them together would have no consequences. Suicide is like that: many small things have to happen and coincide.

It is easy to try to make a huge story of one person's life to attempt to explain suicide. But to explain suicide in general you need a scientific framework, such as the brain theory I propose. I include my conclusions on suicide here, since this book is about this subject.

In order to commit suicide, several elements have to converge to produce an act so contrary to life and the survival drive. Even though I am enumerating them in a particular order, the first condition is the only one that is truly necessary, although not the only one, for suicide to occur.

First, and foremost, a person must experience a loss of the sense of self. This condition is often, but not always, produced during depression and the depressed phase of manic-depression and occasionally in schizophrenia and schizophreniform disorder. With slowed thinking or disorganized thinking, negative emotions are triggered and brought to the surface. At the same time, because of the effect of the negative emotions on the brain, certain modes of thinking, primarily all the memories associated with positive emotions, are partially inaccessible. The inaccessibility of these memories produces a distortion of the sense of self that generates a condition that skilled writers cannot begin to describe adequately. There are no words for it and the best one can hope for is a good image: I could not find love

in myself, a skittering black darkness, had a berth in a pounding hell, a veritable howling tempest, downwards into hell's loneliest black depths. I feel that by combining several descriptions, a better sense of this condition can be conveyed: the hidden, shadowy terror of devouring misery crashed down on me with a clammy chill.

Because it is so important to understand this mental state, I have given it its own special name, *idiozimia* (from the Greek, *idios*=self and *zimia*=loss). And, I have named a partial reduction or diminution of a sense of self, *archidiozimia* (from the Greek *archi*=beginning).

Idiozimia is perceived as a menagerie of simultaneous negative feelings, which produce in the individual who suffers from it, a torment greater than the sum of each of its parts. The combination of negative feelings is individual to each person, and this makes each individual's experience different. Just as each person has unique memories, so each person will experience depression uniquely. Each individual's thoughts and experiences are unique, and when they are activated by the negative emotions, will be expressed in special ways.

A history of a diminution or loss of the sense of self must be the most important predictive symptom of a potential suicide as this is a necessary precondition for suicide to become possible. But *archidiozimia* or *idiozimia* is not a sufficient condition either; other elements must be present. Suicidal thoughts might be a manifestation that *archidiozimia* or a complete loss of self are present but are not in themselves proof of anything. Suicidal thoughts could have been caused by a previous *idiozimia* even if at the present moment the self is intact. The problem, however, is that *archidiozimia* or *idiozimia* can present itself abruptly and unpredictably. And the loss of self cannot be judged by outward appearances either.

A second element is suicidal thoughts. The state of *archidiozimia* allows suicidal thoughts to emerge which otherwise would be unthinkable. The possibility of inflicting damage to oneself becomes less illogical. There is a huge gap between suicidal thoughts and acting on them, but once the thoughts are part of a possible solution, the gap becomes smaller. The continued intrusion of these suicidal thoughts slowly makes them seem more possible, more likely. A plan might emerge; this is a real danger sign. The tools or methods for suicide might be perfected or put into place; a very serious sign. At this point, if *idiozimia* is present, it might just be a matter of time.

Third element: the slow vanishing of inner strength. The intense suffering that accompanies depression and some combination of symptoms in schizophrenia and schizophreniform disorder can be so acute that ending

one's life becomes a real alternative. The effort to stay alive in the face of extreme torment seems insurmountable. The struggle to continue a semblance of normalcy uses up all possible energy; only in the mildest or very moderate cases can this outward appearance be achieved to begin with. Hardly any energy remains to do anything else. The desire for calm and peace might be overwhelming but the effort necessary to achieve this seems elusive and impossible. The strength to continue living erodes slowly until death seems a welcome act.

Fourth element: hopelessness. The suffering becomes so great that the situation starts to feel hopeless. Relief from the pain seems beyond one's grasp. That the suffering might eventually subside does not seem possible. Slowly, death becomes a longed-for relief. The renewed negative feelings, after having enjoyed a respite, can spiral out of control. Disappointment and frustration add up to all other negative feelings. Perspective on the nature of the pain is lost, magnifying its intensity like a long felt toothache pushing the individual slowly to a form of insanity. The seeming hopelessness of the situation needs to be obsessively ended. A quick solution becomes imperative. The wrong solution, if continued existence is considered a desired goal, is quickly equated with death. However, if ending the hopelessness of relieving the suffering is considered a necessary goal, death becomes a logical act.

Fifth element: damage to the hippocampus. Because of prolonged and intense stress, secretions of glucocorticoids damage the hippocampus. The hippocampus will store and retrieve the memories of all related objects to an event, in this way creating a context. When the hippocampus is damaged, the emotional context will be perceived wrongly. The negative emotions, put into the wrong context, will exacerbate the effect of the first four elements.

Sixth Element: the aftoktonic switch. Within the context of the last four elements, or because of their repetitiveness in past experience, the echoes streaming from the cortex reinforce and increase the chance that the thalamus will match incoming signals with external sensory signals and erroneously, but automatically, trigger the respective emotions linked to hopelessness and vanishing strength and activate the related suicidal thoughts. Once this happens, the amygdala will signal the nucleus accumbens and amplify these, and turn the suicidal thoughts into a belief. Beliefs take the place of reality. Simultaneously, the hippocampus signals the nucleus accumbens and increases the urge produced by the suicidal belief signaled from the ventral tegmental area. With a stressed, damaged hippocampus, the hippocampus and amygdala signal, respectively, an urge to end life within the context of hopelessness, and the belief that death is welcome. This binary combination becomes an

unbearable urge to commit suicide by whatever means available. This is what I call the aftoktonic switch. Suicide is not a random, purposeless act. To the sufferer, under these conditions, it becomes the only available solution to his or her problems. At best, the need to stop consciousness to end unendurable pain is irresistible, which leads to a suicidal act. When idiozimia is present and the aftoktonic switch is triggered, an overriding, imperative belief that death is preferable, a single-minded urge to end it all becomes inevitable, as all other alternatives become inaccessible. The choice, the response, the action, becomes one.

It is in relation to the aftoktonic switch that some antidepressants (SRRI's) can induce suicidal behavior. Rising (after having fallen) serotonergic levels produced by antidepressants when not taken at a regular basis, increase the chances of acting on a belief. If the suicidal switch has been triggered, the rising level of serotonin is interpreted as a strong urge to act. Other investigators have called this effect increased impulsivity. Antidepressants should be taken on schedule and in the right dosages, rigorously.

Seventh element: this is so important that I have given it a special name, the phobothymic switch (from Greek, phobos=fear and thymos=wrath or anger). This element might be independent of the second, third, fourth and fifth elements just described. It is common that depression or schizophrenia is accompanied by anxiety or panic attacks. Depression and schizophrenia are states that clearly indicate that something is wrong, and the fear and anxiety associated with these states could be normal responses to a dangerous mood disorder. In order for the amygdala to build up a fear response the prefrontal region must be shut down, otherwise the prefrontal lobes signal the amygdala and fear slowly dissipates when danger is not present. However, when the amygdala is completely unchecked by the prefrontal lobes, the fear escalates and a panic attack ensues.

The first step of the fight-flight response is freezing, a strategy that helps fool predators into thinking that you are dead, or makes it harder for them to detect you. At this moment the phobothymic switch can go either way, fight or flight can be equally possible. Freezing also provides a small amount of time to evaluate the threat and determine to flee, attack, or simply return to a resting state: false alarm. This state feels strangely both like anger and fear, like a prickling sensation down the spine.

When the anxiety attack or the fear escalates into a full-blown panic attack, there can come a moment, when suddenly the phobothymic switch is activated: the flight mechanism switches to a fight response. The uncontrolled fear turns into uncontrolled aggression. In this aggressive

mode, the perceived threat, in this case an irrational panic, which is translated to a feeling of imminent death, is immediately faced down with an anger attack. A confrontation with the biggest known fear, imminent death, becomes not only logical, but seems the only solution, the only way to win, the only way to survive. When the tiger has chased us into a dead-end canyon and there is nowhere to flee, we inevitably turn to face it and fight it to the death. There is no other choice. In a normal, healthy situation, at some point the threat is evaluated (not rationally, there is no time) by the cortex and determined that escape is impossible, or conversely, that the threat can be removed by quick action. Either way, the amygdala receives a signal from the cortex, and automatically the response changes from flight to fight mode; from fear to anger; from a panic attack to an anger attack. It is two sides of the same coin. The phobothymic switch is an elegant engineering solution to automatically and quickly change the strategy for survival; in some cases, at some point, the organism is better off fighting than fleeing.

The question then becomes when, not if, the panic turns into a fight mode. In this particular instance, when the individual is also experiencing idiozimia, or even archidiozimia, this switch into an aggressive mode becomes lethal. Each individual, according to his or her experience, will have a different point at which he or she will go from a flight mode to a full fight response. This point is probably impossible to determine in advance. Being young and male probably increases the probability that this will happen. I suspect that the stronger, mentally and physically, an individual is, the lower the threshold for the panic attack to switch to aggression.

The phobothymic switch described is probably the reason why we lose so many young with no forewarning signs. They, themselves are not even aware that this could happen. The first time they experience this is their last. If they survive this first experience, because of some distraction or interruption, they will then move into the category of potentially suicidal. Most of us don't know how we are going to react to a huge threat we have never encountered before, until we are faced with it. Similarly, during a panic attack the phobothymic switch will flip over to attack mode without warning. When this happens, the greatest possible type of aggression, the suicide, lashing out and killing the source of danger, killing oneself, the cause of the panic attack, is a response that the victim hadn't even contemplated before.

In some instances, mostly in the case of women, the choice of method for suicide is benevolent enough that the chances for surviving the attempt are greatly increased. Women in general choose less violent physical means

to end their lives, increasing the number of suicide attempts in comparison to young men who in turn have a higher suicide rate than women.

Out of the despairing darkness, probably in the midst of a panic attack, the phobothymic switch was triggered and uncontrolled anger took the place of fear. The fact that he was male, young, strong and smart makes this almost a certainty. A calm collectedness came over Mitchell as he embarked on facing the greatest fear, death, itself. Moments before his death, he went from panic to complete aggression; using what was readily available he fashioned his weapons. He fought his last battle and won. But by winning could never rise again to fight.

Conclusions

Independent of everything, the truth is the system is not equipped to deal with cases like Mitch's. First, Mitch failed to understand the true nature of his affliction because there was no one to explain to him the potential dangers. He underestimated the powerful forces of his depression and overestimated what he could achieve mentally and willfully. Partly for these reasons, and perhaps because of a certain shyness or even embarrassment, he did not share with others much of what did go on under the surface.

Second, I was caught almost completely unaware of how dangerous and how quickly Mitch's situation could deteriorate. In our family I had made it my responsibility to oversee and help Mitch get through his depression and panic attacks. My ignorance led to a false sense of security.

Third, there was no one at his high school that was familiar with mental illness in general and suicide in particular, especially when this problem has been on the rise among the young for the last few decades. At college there were medical services that included several psychiatrists, but they diagnosed him as not suicidal.

Fourth, the privacy laws concerning a doctor's diagnosis do not, unless special forms are signed, allow doctors to communicate with friends or relatives. Therefore, the necessary education of family to help achieve a successful resolution becomes less probable. If the patient denies the seriousness of his or her condition, as often happens, and she stops either her medication or the visits to the doctor or both, the family is not alerted of the lack of follow-up that is so necessary. The privacy laws are such that physicians need to go out of their way for release of information. They are too busy to do so. The privacy laws need to be changed so that family and friends, not everybody, can easily be alerted and warned about particular symptoms that can be lethal or which could be potentially indicative of suicidal behaviors in order to help prevent more unnecessary deaths.

Fifth, the failure of the medical profession is partly due to certain arrogance "that we are experts and know how things are supposed to be". I am not implying that such an attitude pertains to all doctors. And this attitude,

present in most branches of human knowledge, is widespread in the rest of the medical community. Medical practitioners spend little time explaining why they diagnose something, or what the diagnosis means, even less on how they decided on a particular treatment and definitely, say nothing about what they don't know. I am not implying that there is malice. In many cases it is expedient, quick and easy. Doctors are just following a standard routine or procedures, get paid for them, and move on to the next patient.

Many times, perhaps, doctors should say, "I don't know," or "I don't understand." There should be some humility in the face of uncertainty and ignorance.

In many cases the message that gets through to the patient is, "The doctor is not listening to me." Or the patient yields to the professional in the white coat, "The doctor knows best." Or, as in Mitch's case, "They can't help me," or "There is very little they can do."

Sixth, the system failed to educate the public. Doctors fail to educate patients and their relatives on the possible outcomes, particularly in the case of depression, manic depression and schizophrenia. It should be imperative that they alert their patients and family about dangerous possibilities, even though these might be considered low (by the doctors), like a one in five or one in six. At the very least, educate their patients in what they know and what they don't know. Educate their patients on dangerous signs, or if ignorant of this, at least alert the patients about the limitations of their knowledge. Schools and Universities should have some programs to educate their students and faculty on the basics of mental disorders and suicide among the young. Even if only a few students or faculty are aware of some of the signs, help could be provided quicker in some cases.

We need to eliminate the shame or embarrassment we feel about mental illness, and see it for what it is—a disease like any other. This requires extensive education of all. In particular, the people in contact with our young in our schools should be made much more aware of suicide, its signs, its prevention and cure. Psychiatrists and psychologists are continuously coming into contact with people suffering from mood disorders, and they are not alerting friends and families to the terrible dangers of these illnesses that in the extreme culminate in self-destruction.

Seventh, concerning certain mental disorders, there are severe limitations in what can be accomplished with medication or therapy today. Most therapies and medications are only scratching the periphery of the problem. For example, in depression, medications are concentrating on serotonin enhancing properties, instead of addressing the glutamate and GABA

imbalance I propose. Low levels of serotonin, norepinephrine or dopamine are a result of this imbalance, and when medications correct levels of one of these neurotransmitters, in a few cases it helps, but in many it doesn't. In manic depression psychiatrists are mostly trying to control mood swing with lithium or other medications, again not paying attention to the glutamate and GABA relationship. Lithium contributes to slowing down the effects of sodium in producing neural pulses and indirectly regulates the excitatory nature of glutamate. In the case of schizophrenia, the use of psychotic drugs, mostly dealing with dopamine, is partially on track, but psychiatrists are disregarding the fine balance between dopamine and acetylcholine that I propose.

We need improved therapies. Therapies are only partially successful, and sometimes only in a small percentage of cases, because they are not addressing the real connections between memory, thinking and emotions. Emotions have the purpose of eliciting certain modes of thinking and activating related memories. Certain types of thinking or memories can elicit related emotions. Therapies for certain mental disorders, like medications, fail to address this fundamental issue except in a roundabout way. When therapies achieve a partial improvement, or even enjoy a success, it is only in very specific cases where the issues in a peripheral way indirectly alleviate the problem. However, at the very minimum, therapy helps to make some sense of the confusion, can return some sense of control, and gives hope.

Eighth, we need to change the laws concerning insurance of medical benefits with respect to mental disorders so they are properly covered and included in all health policies. This requires education of politicians. It is imperative that financial reasons should not get in the way of treating mental sickness.

Over a period of five years, in part, because most of the time Mitch was fine, all these things conspired against him. Like in the case of his uncle's death, many small mistakes led to a deadly end. Anyone of these small mistakes, alone, would not have been fatal. Paradoxically, if Mitch's condition had been worse, any one of these factors might have been changed, and affected some of the others, and his death avoided.

Changing or improving the situation in each and every one of the system's shortcomings is the ideal goal. But any change that can be effected will decrease the chances of suicide.

This has been the story of how I came to find some answers to the question of why, less to the question of when. In most cases suicide is preventable, but more needs to be done. It is definitely possible to change some of the connections

in the brain through the two-way avenue of thoughts and memories with emotions and their deep interrelatedness. The profound connections between emotions and their facial and bodily expressions should also be explored as potential tools in the war against mental illness. Based on my explorations, I am convinced new and more effective therapies can be developed.

Three different book clubs have read *A Thousand Moments of Solitude*, and the general consensus was that it should be required reading for all parents, especially if they had a child with troubles or possible mood disorders.

I sent a copy of my book to seven suicide prevention centers around the country. I didn't even receive a letter of acknowledgement. I sent a copy of my book to the American Association of Suicidology, hoping that perhaps they could put it on their list of "recommended reading." I received a letter from them informing me they could not endorse my book as, in the opinion of the reviewer, my ideas were based on outmoded research. I suppose they meant, that since they haven't heard about such research, it must be very old and outmoded. I would understand if they had said that they couldn't endorse unproven theories, that more research is needed. Yet, they endorse books that say that suicide is unexplainable. Sometimes I wonder what are they really thinking or doing.

It is almost five years since the death of my son and I am almost O.K. I suppose I'll never be quite O.K., but I live on.

~

A few years ago, Mitch and I were alone, looking out into Carmel Valley from the heights of the back terrace of our house. Two rainbows suddenly materialized over the valley. The event was memorable, not only because of the double rainbow, but also the intensity and proximity of them. The colors of the rainbows were very sharp and had an almost solid quality to them. From our perspective we could clearly see down into the field where the rainbows touched the ground. The rainbows seemed to hover a few feet above the field, almost, but not quite touching the earth, arching upwards, high into the sky.

"Look, Mitch, there is no pot of gold at the end of the rainbow," I said jokingly, pointing to the field below us.

"You can't be sure of that. What about the other end?" he answered grinning.

So, now, I remain connected forever to Mitchell not only through loving memories, but also, when I see them, through hawks and rainbows. Hawks and rainbows are a promise of a better tomorrow and make me feel almost O.K.

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