

CHAPTER 32

CO-EVOLVING WITH JEANNIE

Since Jeannie is no longer with me, I have no choice but to describe the challenges we met together as I remember them. These incidences could have destroyed our relationship, but they strengthened it instead. Our children have been extremely helpful in recalling memories of the early days, and Kathy Brady (nee Osgood) has been an invaluable source of information about the early days at Penn State, where Jeannie and I first met. Reconstructing the past is extraordinarily difficult. Irving notes: "Your memory is a monster; you forget – it doesn't. It simply files things away. It keeps things from you, or hides things from you – and summons them to your recall with a will of its own. You think you have a memory; but it has you!" (as quoted in Marcus 2008, p. 18). Also, Pinker remarks: "To a very great extent, our memories are ourselves" (as quoted in Marcus 2008, p. 36). "Yet memory is arguably the mind's original sin. So much is built on it, and yet it is, especially in comparison to computer memory, wildly unreliable" (Marcus 2008, p. 36). These issues were particularly troubling while I was trying to recall some dates that I thought I could never forget. However, the co-evolution of my relationship with Jeannie remains vivid, and the dates are probably still available if I could find old records. Carey (2008) remarks: "Scientists have for the first time recorded individual brain cells in the act of summoning a spontaneous memory, revealing not only where a remembered experience is registered but also, in part, how the brain is able to recreate it." Writing this autobiography is a mixture of joy and pain.

Jeannie faced many more challenges than I as she adjusted to my evolving career, but two widely spaced incidents illustrate unexpected events to which I had to adjust.

(1) We were at Rocky Mountain Biological Laboratory (RMBL) for a summer in the early 1960s. At the end of the session, I had flown to Purdue University to present a paper at the Annual Waste Conference. When I returned to our cabin, late at night, people were sleeping all over the floor. I tiptoed over to our bed (the children were sleeping in the loft) and quietly crawled in. When I awoke in the morning, Jeannie said to me, "The students needed some place to stay." Apparently, the director of RMBL had asked the students to vacate their cabins the day before so that the cabins could be winterized. Naturally, Jeannie offered a refuge (our cabin) for those students who wished to stay one more night.

(2) In 1984, I had planned to return to RMBL as a research investigator. In the afternoon two days before we were to leave, Jeannie showed up at home with a Weimaraner puppy and said with delight, "He has blue eyes!" Jeannie found a box and bedding for newly named "Argus," got appropriate shots for him at the veterinarian's, and a dog license at the county seat. The next day, the three of us left in the Volkswagen diesel bug and camped that night in Ohio. Argus slept in his box outside our tiny pop-up tent. He was intelligent and well behaved. When we visited a rest stop, he jumped out and in the vehicle when I gave the signal. The following night, Argus adapted to a motel. The next night, we camped beside a lake at a Kansas state park, and we all went swimming. The last night we spent with Karen's family in Boulder, CO, and Argus adapted to that new environment. The day after we arrived at RMBL, the three of us went hiking in the mountains and saw a bear across an alpine meadow. All of us froze and, after what seemed an eternity, the bear turned and ambled into the aspens on the other side of the meadow. Argus had never seen a bear before, but he passed another test with flying colors. I did not do too badly either – I never asked, "What is this dog doing in our lives?"

Elsewhere in this autobiography, I have used the name "Jean" for my wife, but our children, grandchildren, and close friends always called us "Jeannie" and "Johnny." Calling her "Jean" seemed appropriate in the professional career parts of our lives and "Jeannie" for the more personal parts. For the record, her closest college friend, Kathy Osgood, and I both called her "Og" (a shortening of her maiden name) and still do.

World War II began for the United States shortly after Jeannie and I first met in fall 1941, but even then we felt a strong companionship attraction that grew into a lifelong commitment. For 64 years, we always wanted to be together and do things together. As Pinker (1997, p. 417) remarks, "Offering to spend your life and raise children with someone is the most important promise you'll ever make, and a promise is most credible when the promiser can't back out." Those days were "idyllic," when we studied and met on Saturday evenings, Sunday afternoons, and briefly on evenings before Jeannie had to sell "Sally's Sandwiches" and take orders for the following day. We knew we liked each other, the outdoors, reading and books, concerts, and so on. Neither of us had a passion for material possessions and, consequently, spent as little time shopping as possible. Since we were children of the Great Depression, this abstention was easy because neither of us had lots of money anyway. When we had arrived at college, we each had brought all our clothing in one suitcase and carried a winter coat over one arm. Few other students were much better off. However, this lifestyle went much deeper for us – Jeannie's mentor at Penn State, Professor Stevens, was a member of the Society of Friends (Quakers), which espoused a simple life in terms of material possessions. Jeannie and I adhered to these tenets throughout our lives.

Companionate Love

Jeannie and I were married on August 5, 1944, just after Jeannie acquired a BS in biochemistry and while I was in the US Navy. For the part of our marriage after World War II, I had to spend about 1½ years completing my AB at Swarthmore College (degree in 1947) and then 1 year of graduate school at the University of Pennsylvania. I accepted a temporary position at the Academy of Natural Sciences (ANSP) in June 1948, which became a full-time position in September 1948. I was able to use the research I did at ANSP for an MS (1949) at the University of Pennsylvania. From June 1948 to 1953 (PhD, University of Pennsylvania), I worked full time at ANSP (except for a few months in summer 1952 when I completed my dissertation) and spent long hours completing the requirements for the PhD. From 1946 to 1953, I had to focus intently on professional activities and Jeannie developed many interests of her own.

Until Jeannie became pregnant with Stefan (born July 9, 1949), we lived with her tolerant mother, Eleanor Ogden, in Havertown, Pennsylvania, so Jeannie had the help of her mother with Karen (born November 3, 1945). In 1949, we purchased a tiny, new, ranch house – three bedrooms, one bathroom, a tiny kitchen, a tiny dining space, a tiny living room, and a detached garage on ¼ acre – in a development in Plymouth Valley, near Plymouth Meeting, Pennsylvania. I used one of the tiny bedrooms for my dissertation research; Karen was in one bedroom; and Stef was with us in the “large” bedroom. I was still going on five or six river surveys of about two weeks each year. Jeannie and I continued to look forward to the other’s company whenever time permitted. Jeannie and I were so enthralled with doing things together that I never thought to analyze why this relationship was so fulfilling, even when the marriages of some of our friends broke up. Pinker (1997, p. 507) notes: “Companionate love, the emotion behind close friendship and the enduring bond of marriage (the love that is neither romantic nor sexual), has a psychology of its own. Friends or spouses feel as if they are in each other’s debt, but the debts are not measured and the obligation to repay is not onerous but deeply satisfying.” This description of companionate love initially looked promising to describe mine and Jeannie’s relationship, but on close examination, it does not seem appropriate. We never felt an obligation to repay – our life together was a partnership.

The move to our own house in Plymouth Valley crystallized our division of labor. Jeannie took care of Karen and Stefan, washed the clothes, and did the housekeeping essential to our tiny home. I usually made the large omelet and oatmeal for breakfast, sometimes prepared dinner, and mowed the lawn. From the end of the US Great Depression, during World War II, and the period until I acquired the PhD, our relationship was the core of our lives. We had time for each other and the children, but not much else. In 1953, when I acquired the PhD, twelve years after Jeannie and I first met, we had a “normal” American income, even though a regular income was never an issue in our relationship. While I was getting two graduate degrees and was employed full time at ANSP, I probably spent 60-80 hours each week on professional activities. I never kept track of time – just what goals had to be met. The field survey team worked seven days a week, often working to or past midnight (collections had to be studied and processed). This schedule never seemed burdensome to me because the “work” was exciting, and my colleagues and I did not regard ourselves as “workaholics.” I gradually learned that other research investigators spent comparable amounts of time without regret or feelings of sacrifice. In most fields of research, one must reach a critical mass of accomplishments for even modest success, although success is never guaranteed.

Major Co-evolution Begins

When I acquired the PhD in 1953, the amount of free time I had increased dramatically. Although I took a 1-year postdoctoral course in isotope methodology at Hahnemann Medical College in 1954-1955, my years of formal education were essentially over. While at our house in Plymouth Valley, Jeannie had discovered the Ethical Culture Society (ECS) in Philadelphia, PA. The entire family went to the meetings on weekends. We had both been interested in ethics – Jeannie especially due to her Penn State mentor Dr. Stevens. The building owned by ECS was on Rittenhouse Square in Philadelphia, not far from ANSP. Now we could socialize at the meeting house and visit homes of other members. At an ECS social event, we became interested in folk dancing.

About 1950, my father purchased a small cottage in Surf City, Long Beach Island, New Jersey, between Barnegat Bay and the Atlantic Ocean. At that time, only one main thoroughfare existed, with small dead-end streets that led either to the bay or ocean. Jeannie, Karen, and Stefan spent the entire summer there.

I kept a small, wooden boat at the end of the large marshland on the bay side. We usually drove to the boat because I kept the “powerful” 5-horsepower (yes, it was really 5) outboard motor in the trunk of the pre-World War II Chevrolet sedan my father had given Jeannie and me. Summer was the busy time for me because of field trips at ANSP, so I could only get to Surf City on weekends when I was not on a field trip. Jeannie’s Aunt Francis and my father were always there on the weekends, and Aunt Fran loved to cook.

Summers there were peaceful and tranquil times for the entire family, but especially for Jeannie and me. At the northern end of Long Beach Island, an inlet provided access for boats to and from Barnegat Bay and the Atlantic Ocean. A beautiful lighthouse (aren’t they all?) with a parking area also sat there. A long spit, perhaps over one-half mile long, was at a right angle to Long Beach Island, which led into the bay. On one abandoned telephone or power line pole sat an osprey nest. Even on hot summer days, a good breeze stirred. We sometimes hiked to the end of the spit (I carried Stef in a baby back harness and Karen walked) for a picnic. At that time, most of the small islands in the bay had large numbers of nesting gulls, including skimmers, which were fun to watch. Sometimes Jeannie and I would take the boat across the bay and hike up a tree- and brush-lined, tea-colored, freshwater tributary stream. In August, we would lie on the beach at night and watch shooting stars (the Perseids) until the mosquitoes drove us indoors. Some summers, Will Snyder (the only house on the bay

side in the early days) would take Jeannie and me sailing in his Barnegat Bay skiff. Of course, we always swam at least twice daily when I was there for a full day. During weekends, we went to the summer theater at Beach Haven on the island. Summer weekdays when I worked at ANSP (between field trips), I would leave just before 5 pm to beat the Delaware River Bridge peak traffic and drive the 70 miles (we didn't worry about carbon footprints back then) to take a swim in the ocean, have a quick dinner, read a story to the children and tuck them into bed, take a brief walk on the beach with Jeannie, and go to bed. Some days, I rose early, had breakfast, and started the 1½–2 hour drive to ANSP. Naturally, I could not manage this schedule every day. This time was, in a sense, a long delayed honeymoon with two children along. However, the most important factor was that, when I finally had a significant amount of free time, Jeannie and I wanted to spend it together in ways that mostly involved the children.

In 1953, we purchased the 110-year old gatehouse of a large estate near the Philadelphia Country Club in Gladwynne, PA. It stood on 2½ acres of wooded land with a small pond. As soon as we saw it, we knew it was our dream home. A tract home was acceptable for a few years, but this land had a heron, pheasants, and a fox. The realtor had given us the wrong key the day went to see the house, so we saw the inside only after we had signed a purchase agreement.

The kitchen was large but archaic – the single bathroom only marginally better. The second floor had a large bedroom overlooking Woodmont Road and was protected by a huge yew. The other bedrooms were tiny, even by the Spartan standards of the 1800s. The staircase was steep and narrow, with a sturdy railing on one side. On the first floor was a tiny living room, which was protected by the same huge yew that shaded the master bedroom. The dining room was large and had a huge multi-paned bay window that almost covered the side overlooking the driveway and hillside field above it. I had a large desk on the side opposite the bay window. The side backing the second floor stairs had a large cupboard with bookshelves behind glass doors. A door to the basement was nestled between the cupboard and the bay window. Marbles in the dining room rolled toward the desk. The basement had an oil furnace that sent steam to other parts of the house. The ancient electrical wiring (exposed in the basement) consisted of two substantial, parallel wires that were protected at intervals by insulators. The 250-gallon oil tank was in the basement below a small window near the driveway. The roof consisted of cedar shingles. I could see light through the cracks, but the shingles swelled and closed the cracks as soon as they got wet. The living room and dining room floors had at least six layers of paint, which I removed with a large sander and sandpaper and varnished once the paint was removed. I put four jackposts in the basement to shore up the large dining room floor. I also sanded and painted the “dewlap” shingles on the second floor outside walls. The metal roof of the kitchen and the shed behind it required tar, and I remember putting new tar on it when Prophet Jones, in his white ermine robe, was giving an address to a large crowd from the balcony of the estate house. At the end of the house was a tiny garage in which the wheelbarrow, bikes, and sleds were kept.

Most women would have had hysterics after seeing the interior of the gatehouse, especially since we first saw it after purchasing the house – but not Jeannie. The fine, old trees on the 2½ acres were superb and the old house was picturesque. The entrance to our driveway was flanked by two enormous stone columns that held up two huge wrought iron gates. A quaint, hand carved, wooden door under a stone arch went from one column to the house. Our gate house was once for deliveries, work persons, etc., so, because we had two small children who would play on the driveway, closing the gate would stop any through traffic. The new owners of the estate, Palace Missions Incorporated (headed by Father Devine), graciously agreed and erected a substantial but aesthetic barrier on the other end of the road where the two properties joined.

Jeannie was entranced when she first saw “our” gatehouse and so were the children. They had a “thinking tree,” a very old Japanese maple that they could climb and sit in and dream. The financial situation was challenging for a few months, but Jeannie and the children stayed at Plymouth Valley while I sanded and varnished floors at the gatehouse. The large bedroom had many layers of wallpaper – some layers covered with paint – that Jeannie and I steamed and removed. Underneath the wallpaper were numerous cracks, but Jeannie found a paint that was almost a paste. We spread it over the walls and cracks and stippled it with a special tool that came with the paint. Between the kitchen and the garage was an enclosed, unheated space with a door on the driveway side and a window on the wooded side. The metal tarred roof that covered the kitchen also covered this space. One day Jeannie removed both ends and made a breezeway.

Many of the regional mills had closed after we purchased the Plymouth Valley house, and sale signs popped up all over the development. Ultimately, we lost nearly 20% of the value of our first house and, for a few months, owned two houses. However, we were in a house where we knew we belonged. Initially, we felt as if we were living in some remote area, although later it was “discovered” and many houses were built on Woodmont Road. The schools were first-rate, and just down the hill was the Schuylkill Expressway that got me to the ANSP parking lot in about 20 minutes. My colleague, entomologist Selwyn (Sam) Roback, lived further out in King of Prussia, so we could carpool to ANSP. Thus, Jeannie had our Volkswagen “bug” every other day.

Finally the Plymouth Valley house sold, and I was able to return the thousands of dollars my father had lent us. Despite the risks we had taken and the hard work, new bonds were forged between Jeannie and me. The children had been involved in the selection of our new house and were pleased with it and the far better school system.

Post-degree Research

In 1953, my dissertation was published (Cairns 1953) – a requirement of the University of Pennsylvania – and I had three other publications, which was a slim array for a research career. Isaac Asimov once defined academic freedom as

extramural funding. My mentor, Ruth Patrick, was a past master at acquiring grants and contracts, and, from 1948 to 1953, I was entirely dependent upon her for extramural funding. In 1953, I began to acquire grants and contracts on my own, but could not have survived as a research scientist without her help. Fortunately, I had taken Professor L. V. Heilbruns physiology course while a graduate student, so when Ruth Patrick acquired a grant to study the effects of increased water temperatures from power plants and reactors, I felt somewhat prepared. The research was on freshwater fish, invertebrates, and diatoms. Consequently, Ruth Patrick introduced me to studies on three levels of the aquatic food chain. The results were interesting, and I even was invited to present a paper at the 10th Annual Purdue Industrial Waste Conference. Professor Don Bloodgood, who was in charge of the conference, published my paper and also saw that it was published in two parts in *Industrial Wastes* (Cairns 1956a,b). This valuable experience not only acquainted me with a new research area but also with the discipline of waste treatment engineering, which had money to support the research. Still, this new research area was another risky undertaking, which Jeannie fully supported. The risk turned out to be a justifiable one since a wide variety of engineers had become interested in toxicity testing. This research on toxicity of chemical substances to aquatic life continued through the 1950s to the early 1990s. In addition to engineering journals, I used *Notulae Naturae* of ANSP for publishing many papers. Classical biological journals did not welcome toxicity testing manuscripts, although they involved living material. The few journals that were willing to consider the manuscripts lacked experienced reviewers. In 1966, I managed to have an article in *Progressive Fish-Culturist* (Cairns 1966) and, in 1967, an article in *Scientist and Citizen* (Cairns 1967). Fortunately, engineering journals kept alive my hope that environmental toxicology would be accepted outside of engineering.

In 1961, I began teaching, first at RMBL (1961-1963) and then at University of Michigan Biological Station (1964-1970), and I continued at these two field stations through 1994. In the academic year 1962-1963, I taught an all-day Saturday course in physiology for the National Science Foundation Institute to high school teachers. I enjoyed teaching, and now I had three courses I was confident in teaching in case my research career failed. Jeannie's support never wavered despite the fact that, in 1963, I turned 40 years old and was working 60+ hours per week and still had not accomplished anything notable.

Jeannie and I had always liked hiking in natural systems, but hiking developed into a necessity in 1961, our first year at RMBL. After that, we felt that a 1- or 2-mile hike daily, except in inclement weather, was a necessity. We felt serene hiking the Appalachian Trail or even the second growth forest in which our Virginia house was located. Some Indian tribes call trees "the standing people." In Greek myths, spirits known as hamadryads dwelt in the trees of sacred groves (Little 2008, p. xiii), but were not immortal – if a tree died, its spirit died with it. All old growth forests are sacred, but even second growth forests have a spiritual quality – both Jeannie and I felt this very strongly. Of course, we had hiked on the beach on Long Beach Island, New Jersey, where my father had a summer cottage, but not until we got to the Colorado mountains did daily hikes become a necessity. When we arrived at Virginia Tech in 1968, swimming 1 mile in indoor pools became a daily, weekday event. Of course, we had both swum as children, summers at Long Beach Island in the 1950s and summers in Douglas Lake at the University of Michigan Biological Station from 1964 through 1984, but the activity was then seasonal.

In the late 1950s and early 1960s, I began to spend increasing amounts of time on administration. In 1960 and 1961, I had no journal articles, no books, no chapters in books edited by others, and not even a single abstract. This period was scary for a person who hoped for a research career with significant teaching responsibilities. Jeannie's support never wavered, but I had significant doubts. I was in a new field, environmental toxicology, which was not exactly a "hot, new" field. However, I was confident it would become a major factor in environmental decisions, which it did.

The Defining Decision

In the mid-1960s, I decided I needed more control of my time to develop a computer interfaced toxicity monitoring system. I had been at ANSP (from 1948) for so long that colleagues assumed I was there for life. In 1965, I had only one tempting offer from a small, quality university, but it required major administrative time and starting a biology department that would award the BS, MS, and PhD degrees.

Some of these events have been covered elsewhere in this autobiography, but I am emphasizing here the events that could have strained or destroyed the relationship between Jeannie and me. We both grew up in the Philadelphia area and had lived there for 43 years (1923-1966). We would be leaving a secure position at ANSP, family, friends, and the superb Lower Merion Township school system – all for the hope that I could manage to develop a significant research career.

The best employment offer I had in spring 1966 was from the University of Kansas (KU). I gave the customary seminar and described my research plans to the faculty and various administrators. I was shown an old frame house and was asked if it would be suitable for my research; it would have been sufficient for the first phase. I assumed that, if my research was satisfactory, then more suitable space would be found. I never saw the house again, nor was it ever mentioned.

When Jeannie and I went to KU, we assumed it would be for the rest of our lives. We were both 43 years old, and the typical faculty retirement age was 65. Shortly after I arrived, I was shown my "research space" on a take-it or leave-it basis. It was totally inadequate. My heart sank! What had I done to Jeannie and the children? I couldn't bring myself to discuss it. I would simply work hard and hope for the best.

Jeannie's amazing adaptability soon resulted in: (1) starting a folk dancing group at KU, (2) getting deeply involved in Head Start, (3) becoming, as a couple, members of three square dance groups, and (4) joining the local Unitarian

Fellowship as a family. Jeannie was obviously aware of the problem with my professional position, but we never really discussed it.

In retrospect, my despair was comparatively short lived, although, at the time, it seemed endless. I began getting increased numbers of seminar invitations from academic institutions. I had acquired enough extramural funding for my research needs and worked on manuscripts, which I had not had time for in years past. Jeannie had no intention of becoming depressed, and her attitude kept my spirits much higher than they would otherwise have been. Jeannie felt that, since we were in Kansas, we might as well enjoy square dancing and the local people.

Lift Off at Virginia Tech

In spring 1968, I had four interviews at quality universities. I required detailed specifications of my research space – I had learned an important lesson at KU. Although Virginia Tech was lowest in the national rankings, I accepted a research professorship and temporary research space until a new building was completed. Shortly after I had arrived at Virginia Tech, I was asked to visit the university's president. The KU Chancellor and Provost had called him to say that, if they had known of my circumstances, I would still be at KU. Their acts were among the kindest I have experienced in my lifetime, and the immense gratitude I felt has not diminished.

Bob Paterson (Head, Department of Biology), his wife Marion, and his family, who were old friends from summers at the University of Michigan Biological Station, made the transition to our new home less difficult. Marion even found a house for us in a very tight housing market. Two graduate students, Tom Waller and Rip Sparks, came with me from KU, and two other graduate students, Ken Dickson and Jean Ruthven, joined me at the University of Michigan Biological Station for the summer session, and then we all met at Virginia Tech. Without these fine young people, a "lift off" at Virginia Tech would not have been possible. With the combination of adequate quality research space and highly motivated graduate students, the situation improved dramatically. In just over one semester, we had funding for the computer interfaced monitoring systems, for protozoan colonization dynamics research, and, somewhat later, aquatic ecosystem research. Although I would never have believed the possibility at that time, funding would be unbroken beyond my retirement in 1995. Publications also took off. The research space was critical!

Not until 1971 was there persuasive evidence that my research program was moderately well established. The Aquatic Ecology Program had developed nicely: (1) five faculty had joined the program, (2) graduate student enrollment was heartening, and (3) extramural funding had increased substantially. In 1970, I was asked to become Director of the University Center for Environmental and Hazardous Materials Studies. The Aquatic Ecology Program in the Department of Biology and my research was increasingly transdisciplinary, so the extreme administrative effort and time were justified.

Jeannie was a remarkable person! She selected the most interesting opportunities available to her at any particular time. She always focused on now – not what was or what might have been. Jeannie found the campus YMCA and was immediately at home. When awards for the research program I had started began shortly after our arrival at Virginia Tech, Jeannie treated them with the same detachment with which she responded to setbacks – one's "inner light" should not be markedly changed by either.

Our Family

I was an undergraduate student until Karen was 2 years old and a full-time graduate student until she was 3. After that, I was holding down a full-time job and working on my MS research. Karen and Jeannie actually accompanied me on the first summer of the Conestoga River survey. Stefan was born in 1949 – the year I acquired the MS. Both Duncan (1954) and Heather (1959) were born after I acquired the PhD. Stefan graduated from high school in Lawrence, Kansas, and went to Montana State University. By the time we got to Virginia Tech, only Duncan and Heather were with us.

Jeannie was not a good cook or housekeeper. Above all, she hated being a hostess. Once she said to Karen, "Perhaps I should have taken home economics instead of biochemistry." Neither Karen nor I could visualize Jeannie in home economics. She did like things to be clean and solved that problem by favoring small houses. I enjoyed cooking, especially breakfast, so that problem was solved. She was not particularly interested in clothes, makeup, or household furnishings. Karen remembers that we dropped her off at Colorado College at age 17 directly from RMBL, also in Colorado. She had a small suitcase and a backpack. Jeannie observed the other well dressed freshwomen and whimsically wished Karen "good luck."

While Jeannie was still alive, we lived in the present; but, now that she is gone, I sometimes reflect on the past. As a start, I have never been able to visualize being married to anyone but Jeannie. We both loved our children dearly, but neither of us was a conventional parent. I also cannot visualize being anything other than a research scientist, but had that goal not materialized, I am confident I could have earned money in some other activity. My life would have had less joy, but many other people have endured such lives. Jeannie could definitely have obtained a good position as a biochemist, but that career would not have permitted the freedom of choice in which she flourished. She could handle all the risks, and we hoped each time that changes would not adversely affect our children. Even the two unfortunate years at KU, which did adversely affect our children, did not alter our view of the risk. Even with 20/20 hindsight, the decisions seemed appropriate.

Kahlil Gibran (1923, pp. 21-22) states:

*Your children are not your children.
They are the sons and daughters of Life's longing for itself.
They come through you but not from you,
And though they are with you yet they belong not to you.*

*You may give them your love but not your thoughts,
For they have their own thoughts.
You may house their bodies but not their souls,
For their souls dwell in the house of tomorrow,
which you cannot visit, not even in your dreams.
You may strive to be like them, but seek not to make them like you.
For life goes not backward nor tarries with yesterday.
You are the bows from which your children as living arrows are sent forth.
The Archer sees the mark upon the path of the infinite,
and He bends you with His might that His arrows may go swift and far.
Let your bending in the Archer's hand be for gladness;
For even as He loves the arrow that flies,
so He loves also the bow that is stable.*

The Empty Nest

Duncan got his BS from Virginia Tech and left for a MS at Florida State; shortly after that, Heather left for Swarthmore College. All four of our children acquired graduate degrees. We missed the children, but Jeannie and I enjoyed each other as much as we did when we first met. We loved summers at field stations until I officially retired in June 1995.

In 1999, I realized we should no longer live in our "treehouse" on a steep hillside on Bishop Road. Ice and snow made our long driveway impossible, and a power outage was a disaster. In early 2000, we moved into a townhouse at Warm Hearth Village, a local retirement development. We enjoyed concerts, writers group, and hiking on the many Warm Hearth trails in the woods.

The Long Goodbye

In May 2001, Jeannie complained about severe pains in the left side of her chest. Our local hospital did extensive tests, but could find nothing. Since Jeannie very rarely complained about pain, this incident caused me deep concern. She was definitely not acting normally. In June 2001, the pains returned and were worse. This trip to the hospital revealed substantial blood clots in her left lung. Her rapid decline emphasized that I would no longer be able to care for Jeannie. After discharge from the hospital, she went directly to the nursing care unit at the Kroontje Health Center in our retirement community.

Suddenly, after many years together, our lives were dramatically changed. I could walk from our townhouse to see Jeannie in about 10-15 minutes. She could not understand her new situation, and I could not explain it to her. Sometimes when she first saw me on a visit, her face would crumple up as if she feared I had been gone for good.

I tried to visit three times each day for meals. We were invited to join two other couples for lunch and dinner – three men whose wives were in the nursing unit. All us men ate before or after the wives' meals so that we could help them. I was there for breakfast – the other men were not. Lunch and dinner were the big social events of the day. Jeannie recognized me and the children, but I doubt she recognized the grandchildren, who could not make the long trip from their homes easily. At that time, Stefan in Warrensburg, MO (863 miles), Karen lived in Louisville, KY (425 miles), Heather near Ann Arbor, MI (550 miles), and Duncan in Tallahassee, FL (about 715 miles).

Jeannie started in a shared room at the nursing unit, then a private room with a shared bathroom, and finally a private room. Then, she fell and broke the same hip twice about ten days apart. Before that, I had a companion with her eight hours daily. After her falls, companions sat with her around the clock until she became incapable of falling out of bed. At that time, companions were present for only sixteen hours daily. The companions were always there when Jeannie was awake. The service placed four, fine women with her, and Jeannie obviously recognized them and felt reassured when they were there. Occasionally, all of us saw brief flashes of the earlier Jeannie, and we rejoiced each time.

I may have been delusional, but I always felt that Jeannie knew when I was there. When I read folk tales to her, her facial expressions indicated she was paying attention. However, in February 2005, she had aspiration problems and was sent to the local hospital. Our family was told she would not recover. I sat beside Jeannie's bed during the morning of February 21, 2005. When I went back to the assisted living facility for lunch, Karen and Heather sang the songs Jeannie sang to them when they were children and we could not afford a car radio. Jeannie quietly died while they were singing. One minute she was there and the next minute she was gone. Few women would have tolerated our low income for as many years as Jeannie did. Few spouses would have maintained a supportive attitude while my research career required so many sacrifices and simultaneously remained such a wonderful companion.

One of Jeannie's favorite books was Kahlil Gibran's *The Prophet*, published in 1923 by Alfred A. Knopf in New York. The section in that book on marriage captures my and Jeannie's evolving relationship more closely than anything I have read.

*Then Almitra spoke again and said, and what of Marriage, master?
And he answered saying:
You were born together, and together you shall be forevermore.
You shall be together when the white wings of death scatter your days.
Aye, you shall be together even in the silent memory of God.
But let there be spaces in your togetherness,
And let the winds of the heavens dance between you.*

*Love one another, but make not a bond of love:
Let it rather be a moving sea between the shores of your souls.
Fill each other's cup but drink not from one cup.
Give one another of your bread but eat not from the same loaf.
Sing and dance together and be joyous,
but let each one of you be alone.
Even as the strings of a lute are alone
though they quiver with the same music.*

*Give your hearts, but not into each other's keeping.
For only the hand of Life can contain your hearts.
And stand together yet not too near together:
For the pillars of the temple stand apart,
And the oak tree and the cypress grow not in each other's shadow.*

The Prophet, Kahlil Gibran, 1923, pp. 19-20

Shakespeare's Sonnet 116 *Let Me Not to Marriage of True Minds Admit Impediments* complements Kahlil Gibran's statement on marriage.

*Let me not to the marriage of true minds
Admit impediments. Love is not love
Which alters when it alteration finds,
Or bends with the remover to remove:
O no! it is an ever-fixed mark
That looks on tempests and is never shaken;
It is the star to every wandering bark,
Whose worth's unknown, although his height be taken.
Love's not Time's fool, though rosy lips and cheeks
Within his bending sickle's compass come:
Love alters not with his brief hours and weeks,
But bears it out even to the edge of doom.
If this be error and upon me proved,
I never writ, nor no man ever loved.*

William Shakespeare (1564 - 1616)

Retrospective

In retrospect, mine and Jeannie's coevolution was made possible by a few shared values.

- (1) We wanted to spend our lives together. Possibly neither of us could have explained why – I certainly could not, although I could make a list based on 20/20 hindsight.
- (2) Neither of us placed much value on material possessions (i.e., stuff).
- (3) We both loved natural systems and felt serene when we were in them. To the extent possible, we tried to live in houses that were in natural systems.
- (4) Neither of us attempted to change the other to fit some socially acceptable stereotype (e.g., model hostess, man of the house).
- (5) Clothes were utilitarian, not decorative.
- (6) Daily shared activities were important (e.g., folk dancing, hiking).
- (7) Each of us should have personal activities for which the time was "sacred."

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