Transitions: Navigating Change

MEMOIRS OF

Dr. David B. Gray

TRANSITIONS: NAVIGATING CHANGE

Notes of clarification

This memoir was sponsored by the Program in Occupational Therapy of Washington University to be ready for distribution on May 22, 2015 when Dave would be honored at his Retirement Symposium. Great memories and connections to people and his work are expressed throughout this book by Dave along with entries by close friends and family. It was meant to be compiled and edited by him. Due to his untimely and unexpected passing on February 12, 2015, the editing of the book was out of his hands.

We will be forever grateful that much of what he believed important was captured over several days of conversation in January with Mary Tyrrell. Likewise, the many vignettes of others had been sent to be included in the book; most arrived in time for him to read. We can attest to the joy he had in reading the contributions of others.

Nonetheless, we moved forward holding to the original due-date in order to have the book ready for what was now the Legacy Symposium on May 22. Although much effort and time were committed to editing, we regret that a number of mistakes are present mostly in the spelling of names and of some dates that are approximate rather than exact.

Regardless, we love the memories captured within.

Please enjoy!

The Gray Family,

Margy, David W., Beth, & Polly

Transitions:

Navigating Change

Memoirs of

Dr. David B. Gray

as told to Mary Tyrrell

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Mary Tyrrell interviewed Dr. Gray and wrote the narrative

Jeanne Barker-Nunn, Ph. D., editorial consultant

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This book is lovingly dedicated to my grandchildren,
James Marley Gray Nackley
and
Magdalena "Maggie" Nadira Gray Nackley,

my children,
David Wilmarth Gray and wife, Alicia Yamamoto,
Elizabeth "Beth" Margaret Gray and
husband, James Nackley,
and
Polly Lucille Gray Payne and husband, William Payne,

and with total appreciation to the love of my life,
my wife and loyal companion,
Margaret "Margy" Jean Esterline Gray.

Contents

Preface

For more than 40 years, David B. Gray, PhD, advocated for persons with a disability and served as a leader in improving community participation and public health. As Professor of Occupational Therapy and Neurology at Washington University School of Medicine in St. Louis (WUSM), Gray inspired change, built coalitions, and shared his expertise with the faculty, staff, students, and the communities we serve for nearly twenty years. His teaching focused on disability and social policy, and his research introduced the importance of outcome measures as a way to understand the factors influencing the participation of people with mobility, hearing, and vision impairments on an international level.

Dr. Gray's fundamental beliefs regarding disability came from his educational roots in psychology and behavior genetics. He emphasized that participation in work, education, family life, recreation, personal care, and community activities are as important to an individual's health as the absence of disease. Through his many professional roles, Gray had a significant impact on advancing the role of psychological principles in enhancing the lives of people with disabilities and promoting their participation in society.

Prior to his arrival in St. Louis, Gray was instrumental in developing the International Classification of Functioning, Disability, and Health (ICF). He served as a consultant to the Office on Disability at the U.S. Department of Health and Human Services and in the National Institute of Child Health and Human Development Advisory Council. Dr. Gray was the Director of the National Institute of Disability and Rehabilitation Research (NIDRR) at the National Institutes of Health (NIH) from 1990 through 1995. At the NIH, he helped to develop a

national research program in the area of learning disabilities from 1981–1986 and 1988–1990. He was the author of NIH supplemental research training grants, research fellowships for individuals with disabilities, and the program announcement that resulted in the funding of twelve institutional rehabilitation research and training grants. From 1986 to 1987, Dr. Gray, an individual with C5/6 fracture resulting in quadriplegia, was Director of the National Institute on Disability and Rehabilitation Research (NIDRR) at the U.S. Department of Education in Washington, D.C.

Gray's work has made a lasting impact on the world around us, and his legacy of change and opportunity for meaningful participation among persons with disabilities will live on through the team of professionals, colleagues, and accomplished students he has inspired throughout his career.

We wish to extend special thanks to the family of David Gray, the faculty and staff at the Program in Occupational Therapy, and all the colleagues who have contributed to this book. Work on this project began in the fall of 2014 under Dr. Gray's direction and with his participation. Following his death on February 12, 2015, his family and colleagues at the Program in Occupational Therapy helped carry the project forward. Thanks to everyone involved for sharing their time, talents, stories, photos, and memories with us.

This memoir is a gift to Dr. Gray from Washington University School of Medicine (WUSM) in St. Louis on the momentous occasion of his transitioning from full-time employment to initial retirement. In early January 2015, Mary Tyrrell interviewed Dr. Gray, created the narrative, and eventually generated the final product. Dr. Gray reviewed and approved the first draft of the narrative and since then, in his absence, his daughter Beth reviewed subsequent drafts with Ms. Tyrrell. His wife, Margy, reviewed the final draft. On May 22, 2015, at a memorial service honoring his many professional accomplishments at Washington University St. Louis in St. Louis, Missouri this book was first distributed to family, colleagues, and friends.

Chapter One

What's It All About?

1986

Returning to Washington, D.C., after a presentation with my personal assistant (whom I will call Anna), I had one, though not the first, of many experiences around disability that became securely singed into my brain. Due to inclement weather, our flight had been cancelled. Supreme Court Justice Sandra Day O'Connor stood immediately ahead of me in line at the ticket counter and was being offered a different plane reservation. Since I was, at the time, the presidential-appointed Deputy Director for the National Center for Medical Rehabilitation Research, I approached the reservation clerk in my wheelchair to explain my status and that I needed to return to D.C. that evening. Rather than respond to me, the clerk immediately turned her full attention to Anna. Looking directly at my assistant, the clerk explained that she would check her listings and then proceeded to look down at her computer, obscuring Anna's full view of her lips. Without looking up from that screen, the clerk then went into an explanation of why my request could not be met, but Anna was not able to see the clerk's lips. Anna was an excellent lip reader and, if properly engaged, could communicate so well that that her lack of hearing ability was almost unnoticeable. In this circumstance, however, Anna was not able to see the words being spoken and was not responding to the clerk, who in exasperation yelled loudly enough to be heard by all those in our vicinity, "What's wrong with you! Are you deaf?" Anna calmly responded, "Yes, but if you look at me, I can read lips very well."

The clerk then looked down directly at me to reply, "We're not able to fly you in tonight," and ignoring Anna's request, spoke no more to or even looked at Anna. I then had to move *my* lips so the clerk could understand and then further explain to Anna that we were not flying out that night. I had become the interpreter. It's hard to figure out how first my role and then Anna's role in this transaction disappeared. Who was taking care of whom? And what was going on here? This is just a small example of what people with disabilities experience on an almost constant basis in our culture—it seems ubiquitous. My life's work has focused on changing those initial reactions to meeting someone with impaired mobility.

Instant Impairment

After fracturing my C5/6 vertebra and damaging my spinal cord and instantly becoming quadriplegic, my body image, presentation to the world, and view of myself immediately changed. During those first few years, that sudden and permanent change of body type was a huge transition! I spent most of those first three or four years trying to figure out, "What can I do?" My physiatrist at the Mayo Clinic in Rochester, Minnesota, Dr. Joachim Optiz, believed in me, and guided me through rough waters to a new life. As I was being rolled on a gurney to the rehab unit on my way to that new life, he wisely advised me that I needed to realize that though my life had changed, it was not hopeless. I would be faced with new challenges as I strove to attain old and new life goals for my family and career. I would need to rely on my intellect and develop supportive relationships. "Develop your brain. Put your time and energy and effort into what you *can* do!" I wisely took that advice, and this is the story of my journey. Hopefully, by sharing these arduous and sometimes victorious transitions, I can inspire others on similar journeys, not simply by becoming visible to others in the world but by helping to forward a paradigm shift for people with disabilities—a goal that sometimes proceeds suddenly and at other times frustratingly slow.

Throughout this journey, I have always had a precious group of people surrounding me, urging me on. Forever grateful for their confidence, I hope my struggles will bear the fruit of making this a better world for those with similar impairments.

My friend Dr. Frank Rocco provided an excellent example of someone who had insight into my situation and took action with precise timing. My wife, Margy, and I were out to dinner with friends on a Saturday evening in Rochester, Minnesota, when Frank noticed that people in the restaurant were staring at me. I had earlier described this type of experience to Frank with a metaphor: "It's like being a beautiful woman—people stare and then eventually look away." Well, as Frank observed my discomfort at being the center of unwanted attention that evening, he announced to our table, "That's really rude. Watch this!" He stood up and, looking down at me, slammed his fist on our table and exclaimed loudly enough that the entire room could hear, "I'm sick of *you* getting the wheelchair for every Saturday night's basketball game!" The whole room full of diners stopped to look at the two of us—at first in horror, and then, in unison, everyone started roaring with laughter. They GOT IT! Instead of ostracizing me, they were now all in on his joke and intended lesson!

Dad's Family History

Ours was a fairly typical middle-class family. Dad, Fred Gray, was the middle child of five: John, Pauline, Fred, Helen, and young Frank. His parents, Frank Gray, Sr. and Katie Price, owned large parts of a county in Tennessee, where they farmed tobacco. They were proud to be distant relatives of David Crockett, and an even bigger claim to fame was the occasion when President Andrew Jackson had stopped at the inn they owned.

Young Fred liked farm life, where he experienced the birthing of animals and raising flocks of chickens. At the tender age of ten years, he decided to become a doctor. That was about the same time that the

Fred Gray as a young child in Tennessee

federal government had ordered food for WWI troops in France but over-estimated the amount they needed and didn't purchase as much as had been expected. During the depressed economy of 1920, this forced the family to sell most of their land to survive. Everyone in the family had to find a job. Dad was twelve years old when he moved to Kingsport, Tennessee, where, in addition to attending high school, he worked as a "soda jerk." He finished high school and went on to Tusculum College in eastern Tennessee. The dean there annually rented a summer place for his family in Bar Harbor, Maine, and hired young Fred to care for his two children. During those summers, though he never learned to swim, Fred was able to master two new skills: sailing and lobster fishing. When I was a child, he'd jokingly brag that he brought some lobster traps back to Tennessee only to discover he could never catch fish with those things.

After I broke my neck years later, the dean's family sent live lobsters as a gift of support. That's what I mean about my good fortune in being surrounded by supportive people. We shared the lobsters with our

generous neighbors who helped finish the construction of our house in Byron, Minnesota, after the accident: Judge Gerry Ring and his wife, Carol, and Jim and Mary Rodrick.

Getting back to my father's story, he finished college and was then accepted at Vanderbilt Medical School. With limited funds and some scholarships, he'd almost finished medical school when he completely ran out of funds for the last semester. Swallowing his pride, he had to take a loan—the boy from East Tennessee did not like to be in debt. It went against his whole philosophy of life. He graduated in one of two classes of medical students that year. World War II was heating up, and medical schools were producing as many doctors as possible.

Marion Louise Bertsch

In the meantime, the woman who was to become my mother, Marion Louise Bertsch, was growing up in Grand Rapids, Michigan. Her parents, Charles Harley Bertsch and Lucile Wilmarth, had married

Mary Chiles Gray, Ruth Bertsch Lillie, Marion Bertsch Gray, Pauline Gray, Mary Elizabeth Gray

in 1912 and had four children, the oldest of whom was Marion. After graduating from Ottawa Hills High School, where she was valedictorian and an accomplished pianist, she enrolled in a women's college, Wheaton College in Massachusetts, for the next two years and made many lifelong friends. At the end of her sophomore year, wanting to save Grandpa and Nanna the big expense of her Eastern "girls' college," Mom transferred to the less expensive University of Michigan, where she graduated Phi Beta Kappa in 1935. From there she went on to Columbia University in New York City, where she worked toward a master's degree in medical social work. The following year, she drove a Ford coupe alone to New Mexico, where she implemented an enrollment program to assist American Indians in applying for Social Security. Upon completing her responsibilities at the end of the year, she headed back to Grand Rapids, where she soon found work as a medical social worker at the Butterworth Hospital and met Dr. Fred Gray. They married in 1940 in the Bertsch home.

1940

In 1940, Dr. Fred Gray was in obstetrical training at Butterworth Hospital in Grand Rapids, Michigan, when he volunteered for U.S. Army. In 1942, shortly before finishing his three-year residency program in obstetrics and gynecology, the U.S. Army sent him to Battle Creek, Michigan, for basic training, and then assigned him to a military police unit sent to Great Britain around the time the Allies were storming Normandy. Following that, he was sent to join the hospital corps who staffed an army hospital west of Bastogne in Belgium, where thousands of soldiers died in WWII during the Battle of the Bulge. Luckily for young doctor Fred, the commander had moved the base back from enemy lines just a few days before the attack.

Dr. Fred Gray with patients in undetermined location during WWII

My Arrival

As WWII wound down in Europe in 1945, Dad was assigned to work with German prisoners. Because he was eager to return home and knew that volunteering for a program based on points for providing especially hazardous capacities would send him home more quickly, he volunteered to march German prisoners to the beach where they were to be shipped to the United States. My dad was five feet five inches tall. He and a six-foot-five colleague were responsible for marching two hundred people. Dad got on a motorcycle, stood in front of his charges, and pulled out a Lugar, announcing, "Anyone who drops out of line—I shoot." No one dropped out.

So, Dad was in Europe when I was born on February 7, 1944. Mom, who tended to be brutally honest, would tell me later that she had been in labor for two days at Butterworth Hospital when Dr. Bosch told her he was going to "jump on your tummy if that baby doesn't come out!" He had been there overnight, delivering other babies in the meantime. She always said I was the hardest to deliver. Thanks, Mom.

So when my dad finally returned to the States in 1946, I was two years old. My mother tells me it was a glorious reunion. Once home,

David Gray, age 2, meeting his father Captain Fred B. Gray

he returned to work in Grand Rapids, where Dr. Bosch invited him into partnership. We had great regard for Dad's military service and for attaining the rank of captain. As I grew I always addressed him as "Sir." It seems to me that I didn't even know his first name until I was eighteen.

Chapter Two

E G R

2333 Oakwood

I was four years old when we moved from Grand Rapids to East Grand Rapids, or EGR. Our new house at 2333 Oakwood was very nice and large enough that I would have my own bedroom. We also owned the extra lot next door, so Dad quickly turned half of that into a large vegetable garden with several rows of corn, tomatoes, lettuce, mounds of potatoes, beets, cabbage, peas, radishes, and peppers. I gradually became the weeder in the family. Although brother Fred claimed he was allergic to weeds (and work), the garden was familiar to me.

Soon the Dermody family built a house about fifty feet from our house. Mr. Dermody owned the White Auto Truck dealership in town. Mrs. Dermody was one of Dad's patients, and their son, John, became my best friend. As five- and six-year-olds, the two of us spent hours in the cabs of sixteen-wheelers touching everything while trying to shift the gears and dreaming of driving.

Each August, our abundant peach trees were the source of mom's peach pies, quarts of canning, and fresh slices cut up for breakfast cereal. Best of all, those that fell to the ground to rot became weapons for fighting the Bertsch gang, our cousins. We had wars throughout the hot summer months, as John and I would build tunnels around the edge on one side of the garden, surreptitiously covered with boards and topped off with sod, as the place to launch our attacks. Those were the years when brother Fred and I were the closest—fighting the Bertsch gang.

Clockwise from mother: Marion, Fred, Dave, Cilla, Bill

Part of the reason my parents had purchased the house was that my sister, Priscilla, nicknamed Cilla, was coming along. There were four bedrooms on the second floor, so each kid had his or her own room. Cilla was born in the early winter of the first year we lived there. Five years later, brother Bill was also born!

School Days

That first autumn, Mom enrolled me in kindergarten at Breton Downs Elementary School. I was four years old, and according to family legend, she wanted me out of the house. Fred would later tease me mercilessly that I flunked kindergarten because I took it twice. That second year of kindergarten, John Dermody walked along with us on our one-mile walk to Breton Downs Elementary. There was no bussing then. By third grade, Lakeside Elementary School had been built just three blocks from our house, so it was easier to walk to school. Fred, John, and I met more friends walking to school. That's how we met Doug Cook, who lived across from the golf course. Sometimes when the Cooks invited me to spend the night, Doug and I would spend the following morning picking stray balls from that course. We quickly learned to wash them well so they looked good and planned to make a fortune. The guy running the pro shop on the course was such a nice guy that he even allowed us to sell them in front of his shop.

Mr. Dermody smoked cigars. While in fifth and sixth grade, fun at John Dermody's included using their doghouse, the size of a garage and located at the back of their property, to smoke. The dogs made noise, but it was a great place to hide. John had smoked before and it didn't bother him, so when he dared me to try it behind the dog-house, I did. And got so sick I never smoked again. Using two empty tin cans and wire rope, the two of us also designed a walkie-talkie to alert each other if bad people might be roaming the neighborhood and we might need reinforcements.

Finding myself easily bored, I periodically got into trouble in school and sometimes had a permanent seat at the front of the class right next to the teacher's desk.

Junior High

Having had such an "ordinary" middle-class childhood, I resented my parents for moving us to a new home in 1957, when Mom and Dad built a house at 3025 Mary Avenue in a neighborhood of homes owned exclusively by doctors, lawyers, and business people. Adding insult to injury, John Dermody no longer live next door. My younger brother Bill became everybody's baby and we collectively spoiled him. At one point, he wanted a dog, so we got him a golden retriever, which he named General. Besides all that disruption, there were no boys my age—most of the other neighborhood children were female (who to me at that age were poisonous). John Dermody and my other old pals were gone, but the house had some good points. It was built close to Reeds' Lake, which was wonderful for swimming and water skiing in summer and for ice-skating in winter. Nonetheless, this move and all that accompanied it was a very difficult transition for me at that age.

Grandmother Lucile Bertsch was helpful in those days. I was always fighting with my brother Fred, and to separate us, she'd occasionally take me to her house on weekends or even weekdays. Since my voice had not yet changed, she enlisted me to sing a solo in the church choir. There were sometimes five hundred to a thousand people present as she played harp and I sang solo. Amazingly, as soon as I would get into Mom's car after singing, Fred and I would start to fight.

And never to be forgotten was the destruction of my toy soldiers. For years, Grandfather Bertsch, whose ancestor served in the Civil War and won the Medal of Honor at Gettysburg, had sent me sets of scale model soldiers, rifles, swords, and cannons from Gettysburg. In all, I had about two hundred pieces. Once during junior high, I had set them up in the classroom as a display, and while I was out of the classroom,

one of the groups using that room decided it would be fun to break off all the arms, rifles, and swords, stuff them into the cannons, and shoot them. I became incensed when I discovered what had happened. In not one of my prouder moments, I started talking back to the teacher, who responded, "You brought them in and it's your responsibility, *not* mine, to take care of them."

Cilla was learning to play violin at the same time as I was taking percussion lessons, and the only time I heard my father yell was to announce loudly, "Go downstairs to practice!" The rest of the family had little appreciation for a screeching violin and pounding drums. I had turned to percussion on the advice of my piano teacher, who told Mom, "Marion, perhaps he should try drums. He doesn't have an ear for the notes." So there, with Mrs. Black's one sentence, went my classical music career. My drum teacher, Mr. Patterson, taught me snare drum, tom-toms, and a little bit of tympani and xylophone.

Chapter Three

East Grand Rapids High School

First Two Years

Dave Gray high school photo

One highlight of my high school days was my civics teacher's annual invitation to Congressman Gerald R. Ford to give a two-hour presentation to all the students. I was always eager to hear what he had to say. This may well be where I developed the interest in government that was to serve me well in later years.

East Grand Rapids High School was a brick building with lots of windows, a great auditorium, and a good band room. I was a good but not great student. One of my problems was my small stature—just five feet two inches tall and weighing a hundred pounds. Fred, my older brother, then a junior, would yell down the hall, "Hey *!##, get out of my hall!" Humiliation was the name of that game, accentuated by his horrible habit of winding up his arm and hitting me on the back in a gesture he called "da whip."

During my freshman year, there were lots of activities with my family and the neighborhood. Cilla liked to ride horses and frequented some nearby stables for a few years. Dad, having grown up on a farm, also loved horses and eventually bought one for her. Since Dad was the obstetrician of the stable owner's wife, the owner gave us a break on the charges for horse and stable. A couple of years later, as I got older and

achieved a driver's license, I'd drive Cilla out there for her lesson. While waiting for her, I would practice track by running indoors in the winter and outdoors in the summer.

I had a run-in with the band director, Warren Falkner, about this time. Although I had taken years of private percussion instruction, he made me play bass drum rather than snare. One fateful day, I blew up at him. As I remember it, we were playing a march at his tempo when he changed the beat in the middle of the tune and proceeded to call me out in front of everyone. I aimed and threw the bass drum stick at him, which hit his music stand. I was sent to see Mr. Kutchi, the principal, and my father was called away from performing surgery to show up at my school in his green scrubs. Angry, my father announced to Mr. Kutchi, "You won't have to worry about him. We're going to take him to Culver Military School in Indiana tomorrow!"

Back home, Mother, who was the president of the Parent–Teacher Association, declared that she'd never heard of Culver. "Now Fred—let's not jump to conclusions," she said; "I know Warren." If Dad had not discussed this with Mom, I'd have been sent to Culver. Thank God for Mom! I promised to never go to the principal's office again and decided I'd get myself under control. Whew!

Hockey and Track

Soon, Fred was off at college and I had a break from his harassment at school. Physically and psychologically, things were . . . transitioning. I grew six inches my junior year, and I was five feet ten inches tall and weighed 140 pounds when my voice began to change.

Hockey had been my favorite sport since I was around eight or ten years old. I'd started ice-skating in second grade and never wanted to stop. In junior high school, when the lake near our house froze over and turned black, I'd skate from our house to school in the morning to build up my muscles. After school, I'd change into my hockey outfit and report for practice. I loved the sport!! We had a regular team at our

community hockey club and wore helmets and, after the first few years, shin guards. By the time I was in high school, we had pants with pads and shoulder pads.

Hockey is so intense and rough that teams usually require switching between four lines of players every forty-five- to sixty-second sessions on ice. We managed to keep only three lines, which meant more time on the ice.

We were the Grand Rapids Rockets. Mr. Vedjis, our volunteer coach, was a former player for the Latvian Olympic team. He was tough and demanded a lot from us. I started out trying to make the team in seventh grade, but didn't make it until eighth grade, when I was taken as a substitute. In ninth grade, I made it onto the regular team. By tenth grade, I played center! For eleventh and twelfth grade, I was captain. We played other teams in the Michigan Amateur Hockey Association, most of whom used rinks for practice. We skated and practiced on Reeds' Lake. End-of-the-year tournaments were favorite times for me, and I'd pray for cold weather. Whenever we went to Canada, the opposing team often won. But in Detroit, we had a chance in the tournaments. Whenever kids from the Upper Peninsula were our opposition, they proved themselves to be better because they came down from Canada. Five of our teammates played later for Michigan State.

Track was another sport I enjoyed, and our track team went to state. The coach asked me to try to run the half-mile, which I ran in two minutes and five seconds. The second time, I ran it in two minutes and two seconds, a good time for me. So Coach had me run first, then Mike Kerwin, next Craig, and then a replacement on the relay team. At state I ran the quarter-mile relay, half-mile relay, and one-mile relay. We did not win state.

The event that got me out of football happened in my senior year. Part of my job on the team was half back on second string and defensive backfield. In senior year, I wanted to be a hero and was happy to be assigned to the position of place kicker to kick extra points at the beginning of the game or after a score. The time we were playing Grand Haven was classic. We were rated Class B and they were rated Class A.

With a score of six to zero, I kicked an extra point, therefore making it seven to zero. Near the end of the fourth quarter, Coach said, "Kick the ball out of the end zone." The weather was windy with icy snow, and I ran up to the ball and MISSED! Coach was not laughing. But because I hadn't touched the ball and it had flown off the kickstand, we had another chance. Coach said, "Just kick it hard!" I hit it hard, but it hit a big lineman and bounced off his chest. At least we didn't lose the game.

My most famous high school sports story was about semi-finals in hockey. We were playing in the Michigan State Hockey Stadium. The MSU hockey coach was observing and I wanted to make a good impression—college was on my horizon. The score was tied one to one at the end of the second period. I came skating around the goal with my left wing on the other side of the goal and said to myself, "I'll just send it up to the left wing to score the goal." Unfortunately, my goalie turned around, stick in hand, and the puck went into our goal. As I skated dejectedly back to the bench, my coach wouldn't let me sit down. I got a goal in the third period that tied it up and we won. The games were broadcast on a local radio station, and that was the only game my dad ever listened to.

Dad never showed up at my games. He was too busy and was almost never around. Years later when I asked him why, he said that I seemed to view it as an avocation, and he viewed it as a "waste of your time. When you want to be successful, you can't divide your energies." If it weren't for Fred challenging me all the time, I probably would have given up. I knew it was rough and loved it.

Mom, on the other hand, was a saint. If ever my school principal called her, which in junior high was almost monthly, she came immediately. She kept me involved in as many activities as possible. I was her job, and her children were to be exposed to as many opportunities as we could handle. She bought season tickets to the symphony, and Dad usually had a patient to deliver and could not go. I was privileged to go along with her, and that's how I developed my love of dance and classical music.

My track numbers greatly improved. Sophomore year I was running a mile at four minutes, fifty seconds, and by senior year I hit four min-

utes, thirty-eight seconds. In fact, because I achieved the half-mile in two minutes, I was chosen co-captain.

I was elected president of the Athletic Club and was recognized at graduation as a scholar athlete. On the rink or around the track, it was the best time of my life.

I had met my best friend, Craig Miller, at the beginning of ninth grade. He'd played linebacker for the football team. He also ran track and was co-captain of the team with me. I ran better at the longer distances while he excelled in the shorter distances, 220 and 440. I ran the mile, half-mile, and quarter-mile. We were good friends, and other than my wife, he was possibly the closest friend I ever had.

Summer Jobs

Dad bought a motorboat when I was in tenth grade, and since we lived next to a lake, we could easily go for a boat ride or water ski. Often, Craig would get his girlfriend and the three of us would water ski. That summer I found a job with a highway road crew chipping paint off high bridges and worked weekdays from 6:30 a.m. to 2:30 p.m. hanging off the bridges while trucks traveled directly below my feet going seventy miles an hour. At 3:00 p.m., I painted summer cottages. By 5:00 p.m., I'd return home to clean up and meet at Reed's Lake for water skiing and swimming. It was idyllic. At Craig's urging, we'd usually have a girl or two join us for the last part of the day. They were smart and pretty, but had no interest in me unless I was driving the boat.

Because Craig's dad was a camp attorney and my dad was active in the YMCA Men's Club, the two of us were employed one summer at Camp Manatoulin, a children's camp, where we were called CITs—counselors in training. The camp director, Pappy, was on guard about the two of us. One evening as campers were roasting marshmallows, someone came by in a canoe and dropped something into the fire pit that blew up to scare the little kids. Pappy had blamed it on the American Indians who lived nearby. Craig became inspired by that trick and

five times placed a charge into the next campfire and got away with it. However, the next time there was something amiss, Pappy became suspicious! There were diving towers on the lake secured by ropes to keep them from drifting to the other side. Craig and I had cut the ropes and soon heard the campers screaming, "Pappy, the diving towers on the lake are moving away!" Next thing, Pappy, without missing a beat, yelled, "Gray! Miller! Get over here by me!" As part of our punishment, Craig and I were to rake up leaves from the slope leading down to the lake, place them into a hay cart, and take that downhill to the ball field. We were not allowed to eat until it was done. Two other CITs were also caught and given the same punishment. We found that the hill was so steep that we had to back the hay cart downhill by holding the huge tongue attached to its front. Craig was a state champion sprinter and bet the three of us that he could beat us getting it down the hill. He apparently forgot about the steepness of the incline, so with him in front and the three of us in back, he started down the hill as the cart quickly gained momentum and began going downhill too fast. Craig threw the tongue up into the air, and the cart veered to the right heading into the outhouse. "It's going to wipe out!" we yelled. Craig reached out to change the direction of the runaway vessel, which sent it into our cabin. The rest of us tried to cushion the blow, but it was too late. The cart lifted our cabin off its cement blocks, leaving it askew on its foundation. This had taken so much time that the bugle was then calling the signal for evening assembly. We all got in line for assembly. Pappy made inspection of the first four cabins and all was fine. Our cabin was number five, and as he placed his foot on the first step, the entire cabin tipped forward, exposing a hole in the back wall. He yelled, "Miller, Gray!" As we and the other two guys lined up in front of him, he announced, "No dinner until your cabin is repaired!" We managed to get the other counselors and campers to help lift the cabin back onto its blocks, found wood to repair the back wall, and caulked, nailed and painted it. Finally, we reported for dinner, where Pappy was seated in the kitchen. We ate our meal very quietly, but at the very end, Pappy lashed into us, saying how our parents would be humiliated by

this juvenile delinquency and finally asked, "How did you come up with the idea of ruining our cabins?" One of the campers, Walt, started laughing, and then the next guy got the giggles. Only Miller could hold a straight face. So we were confined to quarters and had KP (kitchen patrol) for a while.

Girls

When Craig found a girlfriend, Jan, our relationship changed and I entered the world of dating. I'd had lots of crushes on girls but didn't date anyone. I'd had maybe one or two dates, and by the end of junior year, I agreed to a blind double date with a girl named Bonnie. George Carpenter (who drove a motorcycle) was the other guy, and his date didn't want to be on a cycle, so we all took my Dad's car. I drove George to his date's door, where she hopped into the back seat. I'd never seen my blind date, who attended Ottawa High School. After knocking on her door, this beautiful freckle-faced blonde answered. Suavely, I asked, "Is your sister here?" I noticed someone inside on the stairway who seemed to be spying on us as the girl in front of me said, "You're talking to Bonnie." There were gales of laughter from inside the house. I was so embarrassed I was ready to turn away. George Carpenter was bent over in laughter in the car. Bonnie's father saved the day. "Come on in," he said. "I've done worse than that." I looked at Bonnie—the first female I thought was really different than a male. We went to the movie and had a great time. On another occasion, I took her to a dance at my high school, where the locker room was filled with guys joking, "What is she, crazy?"

Academic Influence

A handful of teachers made a lasting impression on me. I no longer recall the real name of one of those, but we called him Dr. Whiz, who managed to get tenth graders all fired up about physics. Ms. de Young was fabulous and the best math teacher I ever had. Our Latin teacher

used her Latin name, *Magistra Collis*, but her real name was Miss Hill. She refused to speak any English in class, and I'd never before had such a difficult class. Since early childhood, I had liked history and felt it was my hobby. However, when the history teacher began lecturing and allowed no open discussion, I was quickly bored. Many of the students in this class were falling asleep, and yet I somehow managed to achieve a B grade. My most outstanding teacher in high school was Coach Waterman, and years later I even dedicated my master's thesis to him. He believed in me and didn't let me get distracted. While I was in gym class, he'd declare loudly, "Attention! Attention! Dave Gray found a muscle!" A wonderful man, he was relentless in encouraging me.

Senior Class Sermon

The year of graduation, I was selected to provide the senior class sermon at First Methodist Church, an annual tradition to honor those graduating from high school. I chose the topic of phenomenology and shared what I had learned about the development of soft-thinking psychology by clinicians such as Carl Rogers during the 40s and 50s.

Chapter Four

College

Advice

When it came time to look at colleges, I remembered my dad's advice that I shouldn't divide my energies between avocations and vocations and chose Lawrence College (now University), which was south of Green Bay, Wisconsin. Two presidents of Harvard had sent their kids to Lawrence because of the superior academic preparation. My freshman year didn't go so well—it was a completely new experience for me. My first assignment was on Plato's *Republic*, and I became aware that most of my classmates, who came from the East Coast, had already read the classics. It was the first paper I had ever written.

The freshman class was divided into four groups of eight to ten people who met for six weeks of classroom study. Professor Kaplan taught my first session. When I wrote my first paper, I thought it was good enough for a C grade, but it was returned with a D- and the comment, "That is a gift." The topic sentences were not good enough, and he added, "See me." At that appointment, he made me aware of my poor use of the English language. I thought I was being sent back home and got ready to pack. This made Mother and Fred look like nice people. Fortunately, Professor Kaplan then allowed me a rewrite and my score came up to a C+.

When I got out of Dr. Kaplan's first section and into the next, I thought I had improved. Again, everybody else in the class had already read the book assigned. I did improve, I got a C+. Dr. Kaplan took a liking to me and spent two and a half more hours with me exploring

what my problems were. No one had ever before taught me about themes and topic sentences.

I had signed up for chemistry but didn't like it, and I didn't do well in math, either. The dean telephoned Dad after my freshman year, and Dad gave me an edict: "I paid for your college. Come back next year with a B average or you can find your own college." That summer I took a make-up math class and worked with the road crew, although I didn't paint as many cottages.

So when I returned for sophomore year, I took classes in psychology from Dr. Buckley and biology from Dr. Gilbert. When I explained that Dad wanted me to eventually go into practice with him, Dr. Buckley said, "You don't want to do what your dad wants for you." To this day, I remain so grateful those two kept me from entering a career I didn't want. In fact, in the entry of our home, I keep a piece of ceramic pottery that was a wedding present to me and Margy from Dr. Buckley.

Margy

I barely managed a B average until I met Margy, Margaret Esterline.

Freshman year, I was supposed to complete my requirement for a foreign language and chose German but dropped out after a week. The fall of sophomore year, I enrolled again. That year I again walked in late for class and found only one open chair—between a beautiful blonde and a gorgeous redhead. "This is gonna' be better than last year," I said to myself. Margy didn't pay any attention to me. The other one did.

Sophomore year, I had changed dorms, and it just so happened that Margy lived in an honors house only one or two houses away. I'd see her in the afternoon as she was walking to the gym for required phy ed class. The following week, she eventually paid a little attention to me. While I was playing touch football with the guys every afternoon, one mentioned that he had a slight crush on her.

Margy and her friend Erla would ride over with us in a bus to the gym, which was located across a river. Students were not allowed to

Margy Esterline and siblings.
From left: Joey, Kate, Albert, Margaret, Anne

drive a car, but the two of them told me that Erla was keeping her car and had managed to park it in an obscure place so they'd have it for weekends. The next weekend, the two of them showed up with bandages on their heads. My friend Chris Isley and I were concerned. "How's the car?" we asked. They didn't answer our question and went on into gym class while Chris and I left to play football. After a while, we saw it was time to return to the main campus and the two girls were in the bus laughing—absolutely nothing was wrong with either of them! That she had let me think differently hurt my ego, so I was refusing to talk with Margy. Some of her friends let me know that Margy didn't mean to insult me and that she'd go to the fall dance with me if I wanted to go with her. She telephoned me. "Sorry," she began. So I said, "How'd you like to go to the dance with me?" She laughed and said, "Yes." We had a good time on that first date. I knew immediately she was the one! Many more dates followed.

Cilla was visiting the campus the weekend of our first date and reported back to Mom and Dad, "He's gone." When Dad met Margy, he took me aside to say, "Marry this woman. She's very good for you."

I went to visit her at her family's home in Faribault, Minnesota, on a hundred and sixty acres where her dad raised sheep, cattle, a mule, a horse, plus dogs and cats. They also put up hay and grain crops. Her father, Albert, was the principal of a school for the deaf, and her mother, Lucille, taught kindergarten and first grade for children who were considered disruptive. The farm is where I learned to clean up manure, as did all three sons-in-law.

The next time I went to visit Margy at their farm, it was winter and the whole family was there. They had huge bowls filled with every kind of delicious food one could imagine. Her father was still grumpy, but her mother seemed to like me. It was a wonderful romance as we'd ice-skate together and enjoy taking long walks in the snow. During summertime visits, we'd swim, weed the garden, pick vegetables, and play touch football and soccer in their backyard. I was aware that her father was reticent about me. Margy had been an actress during her high school days and he wanted her to be a movie star.

Germany

My sophomore and junior years of college went well and were interrupted only by a recurring dream about needing those two credits of a foreign language. The summer of 1965, I went to Germany for two months' immersion for those credits. I lived with a family who treated me as their own and was able to visit Cologne. One train ride that accidently went into Eastern Germany resulted in soldiers marching me off the train. I knew I was finally immersed when I awoke dreaming in German.

College Hockey

Only part of my college career was wasted on the hockey club. Lawrence played St. Olaf and Carleton, who had official teams. Ours was just a club. One time while skating at the blue line, I thought I'd flip

the puck into one of the nets. It bounced in front of the goalie and got in. The biggest game we played was against the University of Wisconsin, which we lost ten to four. I had a hat trick and they went after our goalie, Steve Blair. Steve was renowned for being a goalie who didn't play with a mask, and his major was French horn.

Delta Tau Delta

I joined Delta Tau Delta fraternity at Lawrence, where our members had the highest academic average of any other group on campus. When the college bowl was held, we won two of four years. That's also where I met John Ishikawa, whose Dad was the vice president of the Bank of Hawaii. My fraternity brothers included Henry M. Kaiser, grandson of Edgar Kaiser, Sr.; Chris Isely, whose father was founder and owner of Pilot Products in Chicago; Stephen Landfried, who taught high school and worked in high school administration many years and was a freelance photographer for National Geographic; Larry Wilson, lawyer and

Delt brothers and friends during a visit and picnic in Minneapolis, 1970. Dave and Margy (on right) Delt brothers from left Larry Wilson, Chris Isley, Steve Landfried, and John Ishikawa.

marathon runner; and Michael Katz, who has been a jazz pianist since he was in high school. Most of those guys served in Vietnam or during that war.

In the spring of 1966, Henry took six of us on a cruise on a 94-foot teakwood motorboat. We motored to Princess Louise Inlet, climbed mountains, went water-skiing, and all had a wonderful time. When a problem developed aboard, Henry called his father, and next thing we knew, his parents pulled up alongside us on a forty-foot yacht. They had a good time with us until Mr. Kaiser received a phone call from Robert F. Kennedy, who wanted to meet with him about building a dam in a foreign country. The Kaisers also had a summer home on San Juan Island by Seattle, so he called his seaplane pilot to pick him up because the Kennedys wanted to visit. As we awaited the visitors, Henry suggested we celebrate. Larry had spotted some good wine in the cooler, which was enjoyed by many, but not by me because I didn't drink. Only the next day did we learn that the wine was actually some very special pink champagne that Mrs. Kaiser had purchased to entertain the Kennedys. Henry heard about that for a long time.

Margy and Dave wedding

Chapter Five

Family Life and Grad School

Wedding

When I asked Margy to marry me in June of 1966, she refused, but we continued to date. After I returned from Germany, she changed her mind and accepted. All our romancing was done, and we couldn't be apart any longer. We planned our wedding to be held in Faribault. Her entire family and my entire family and lots of close friends were in attendance. We spent the night of our honeymoon in the Kahler Hotel in Rochester, Minnesota, and from there we drove on to Kalamazoo, where I was getting my master's degree in psychology at Western Michigan University.

Margy had to finish up at Lawrence and headed back there for the interim. As soon as she graduated, she joined me in Kalamazoo. I was in heaven. At the time, I was running rat experiments on shock-elicited aggression and was often up until 2:00 a.m. to collect data. We lived on the money from that research, which we called our "rat money."

David Wilmarth

We were excited that Margy was soon pregnant. In September, when she started going into labor, I drove my 1966 yellow Ford Mustang as fast as ninety miles an hour to Butterworth Hospital, forty-five miles away. As I pulled into the hospital, Dad was standing there protecting the parking spot. He and Margy headed to the delivery department, and I found the

David Wilmarth Gray, 1967

father's room. After a while the loudspeaker announced, "Attention, Dr. Gray has had a grandson." That's how I found out that we had a son. I spotted the head nurse careening around a turn in the hall and Dad coming down the other hallway. He gave me a big hug and said, "She's okay. The baby is fine; good color and all the parts are there."

Dad, Mom, Grandma Katie, and I were there when I first saw David Wilmarth Gray. At first Margy wanted his middle name to be Crawford after her fraternal grandmother, but after discussion we agreed on my maternal grandmother's last name.

What a joy to have a son! Exciting! One gets a big ego becoming a father. He was cute, but cried a lot. While walking him, he'd drool all over me. I'd never before held a drooling baby. Never fed one, either. It's difficult to describe how gratifying it was to comfort him and feel responsible for making sure all went well.

We were living in an apartment that was sparse, and every time Dad would visit, he'd leave a twenty-dollar bill. But he'd hide it every time.

Master's of Science 1970

Now I was on the higher education track and had to get good grades. I got straight A's that year. The two most influential people I met there were so helpful. Dr. Gyula Ficsor, a Hungarian immigrant from the city of Pest, taught my biology course. A geneticist, he taught me lab procedures, use of the microscope, drawing blood, and other field tools. I became interested in alcohol and its effects on metabolism. There had been some work on it, and I was looking at its effect on different breeds of rats. That was the first independent study I ever did.

The other influential mentor that year was Robert Hawkins, a psychologist and research clinician who encouraged me to become a Skinnerian behavioral analyst. I received a fellowship under Dr. Hawkins and was his research assistant.

Margy and I became friends with Dr. Hawkins and his wife. We made documents together, writing up our results and drawing graphs by hand directly on paper and staying up until 2:00 a.m. to meet our deadline. It was pre-personal computer days, and that's how we prepared for conference presentations. I kept in touch with those two professors for many years.

With the completion of my master's degree, I needed to find a job. There were two available. One was at Ontario Copper Mine, north of Lake Superior, which paid well, but the other, at Seton Hill, a Catholic college in Greensburg, Pennsylvania, looked more to my liking, as it was teaching psychology. I won the Teacher of the Year Award twice in a row and had my own lab full of rats to study cooperative behavior. The department chair was a nun, and I found teaching was not a tough assignment.

Elizabeth Margaret

Elizabeth Margaret Gray, 1969

We lived on the top floor of a Tudor-style house, and as David grew, we'd take him on walks. To add to our joy and excitement, our daughter Elizabeth was born on August 22, 1969. Margy wanted that name because she loved it and had asked her mother to name her youngest sister that, but her mother hadn't. I liked the name, too. I remember taking Margy to the hospital four blocks from our home and being asked to wait in the fathers' room.

Because it seemed to be taking too long, I finally went to the nurses' station, where I was told, "You can go into your wife's room." I thought to myself, "How much longer is it going to be?" Dummy that I am, I was astounded when I walked into the room to hear Margy say, "I delivered a half hour ago." The moment I saw that baby, I was in love. All I could think of was what a lovely person she was and how she would be the gem of our lives. What had I ever done to deserve this?

We brought "Beth" home. David was almost two years old. I knew I had to start making some money. Nine thousand dollars for an annual salary as chairman of a department was not going to cut it. So I applied for the Ph.D. Behavioral Program at the University of Colorado and at the University of Minnesota, which was renowned for its human subjects research.

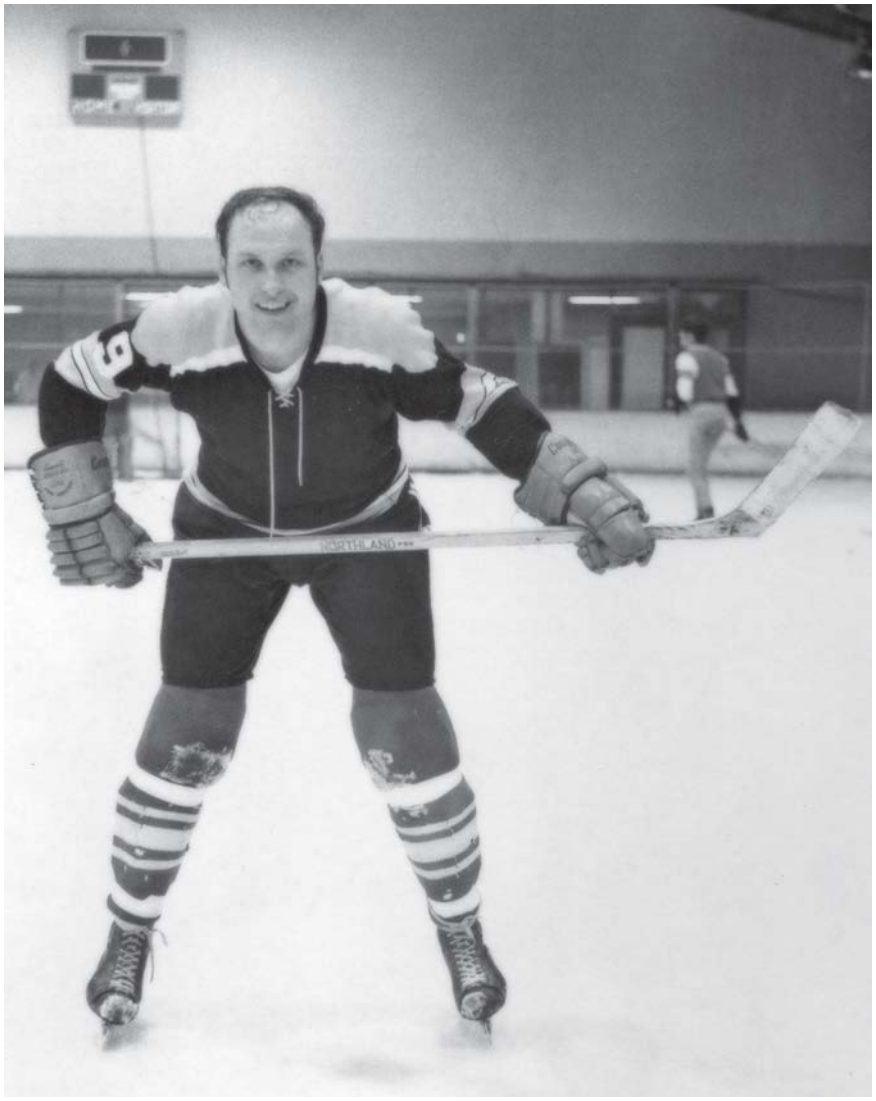
I was down in the basement lab in March when Sister Ann came rapidly down the steps to excitedly announce, "You have a call from the University of Minnesota." Dr. Irving Gottesman was there and famous for his work with twins reared apart at Maudsley Hospital in London. I sprinted upstairs to the red phone booth to hear Dr. Gottesman offer me a fellowship in their graduate program. He added that to qualify, I would need to enroll in a summer class in Pittsburgh on population genetics. I spent from March to July preparing.

The summer of 1970, we packed our bags for Minnesota, driving first to Faribault to visit Margy's parents. Soon we found an apartment across the Mississippi River near the Minneapolis campus and the student walking bridge. I rode my bike to class. My mother- and father-in-law were delighted to have their grandchildren in Minnesota. I was not delighted; I was terrified to be among all those fantastic scientists at the University.

University of Minnesota

I enrolled and started taking all the required courses, which included two years of genetics. Interposed were psychometrics, theory of psy-

chology, behavior genetics, and Skinner's approach to verbal behavior. I noticed that in Dr. Kenneth McKordal's class I didn't miss any points and wound up having a perfect score. "How'd you like to be my training assistant next semester?" he asked. I did, and we got along well.



Dave on the ice

I also took Dr. Lee's summer course on behavior and passed. The two behavioral specialists in the program, Dr. Mike McCormick and Dr. Endfield, taught fabulous courses, and I was relieved to have gotten through the prerequisites. It took two and a half years. They didn't accept one credit from Western. It was during this time that I became interested in combining behavior analysis with genetics.

After two years, Dr. Gottesman called me over to share that he was going to do research abroad for a year or two and I was going to need a new advisor. I was shocked but also thrilled.

After reading Dr. Travis Thompson's books on mental retardation and addicting primates to drugs, I considered him a genius and an incredibly diverse thinker. So I approached him with my idea of wedding behavior analysis with genetics, and he said he'd think about it. When we met a week later, he said, "Let's get together. It sounds interesting, and I never heard of someone doing that type of work." I slept soundly for the first time in a long time.

The University of Minnesota had a fantastic Psychology of Genetics Program. The first month, I took a one-month seminar taught by Dr. Travis Thompson, Dr. Gottesman, and Dr. Paul Meehl, the second-most famous psychologist in the last century on constructing behavioral measures. Also in the department were a post-doctoral specialist in genetic child development, Dr. Sandra Scarr, and a geneticist, Dr. Elving Anderson, a world authority on epilepsy. A more august group of people I had never before met. They met monthly, and first-year students were presenters.

My first assignment was on the genetics of homosexuality. Dr. Scarr was to be my mentor, and I asked her for her impression of what was known on this topic. At that time, she said, "We don't know anything about the genetics." Intensive preparation included reading lots of studies. The day came for my presentation. We were all seated around a huge table, students intermixed with faculty. As I was about three-quarters of the way through, I noticed Dr. Reed, another faculty member, with hands on his chin, then slowly leaning over, asleep. I finished,

eagerly awaiting a response. Dr. Reed picked up his head to say, "That was the worst seminar I ever heard!"

Dr. Sheldon Reed had written the book on mental retardation and ran the Dight Institute for Human Genetics. Although originally known for eugenics, its purpose was changed in 1948 to providing parents with knowledge on which to make decisions, now known as genetic counseling. I didn't make an impression on Dr. Reed as a budding geneticist, but he liked me. For five years after I broke my neck, he sent me $100 a month. Dr. Reed's hobby was orchids, which he grew in his basement, and he became well known for developing new types of orchids.

The following month, another of the "first-years" presented. Dr. Reed didn't fall asleep, but at its conclusion said, "I thought we had the worst last time—this was worse." Before I entered this class, no one had pulled me aside to share that the professors sometimes made fools of people with others sitting around. I decided I was going to say only what I *really* knew. Suffice it to say, in the midst of these world-famous professionals, I learned an incredible amount without having to say much. They'd get into arguments about such topics as phenogenic traits having a pervasive effect. From these arguments I learned that we needed to present on theories, not just data, and that was when I realized I was not going to become a world-famous psychologist.

That experience reminds me of a time when we were living in Pittsburgh and the National Hockey League Penguins were just getting started and holding summer hockey camps. In their attempt to establish a fan base, they invited interested people in the community to join them for a day in training. I put on my hockey stuff and after playing twenty minutes or so, I got slammed up against the boards so hard by J. P. Parise it took my breath away. For a moment, I thought my life had been taken away in that one breath. What had happened to me in the seminar was similar, and it would have been helpful if older students had described the initiation process to me.

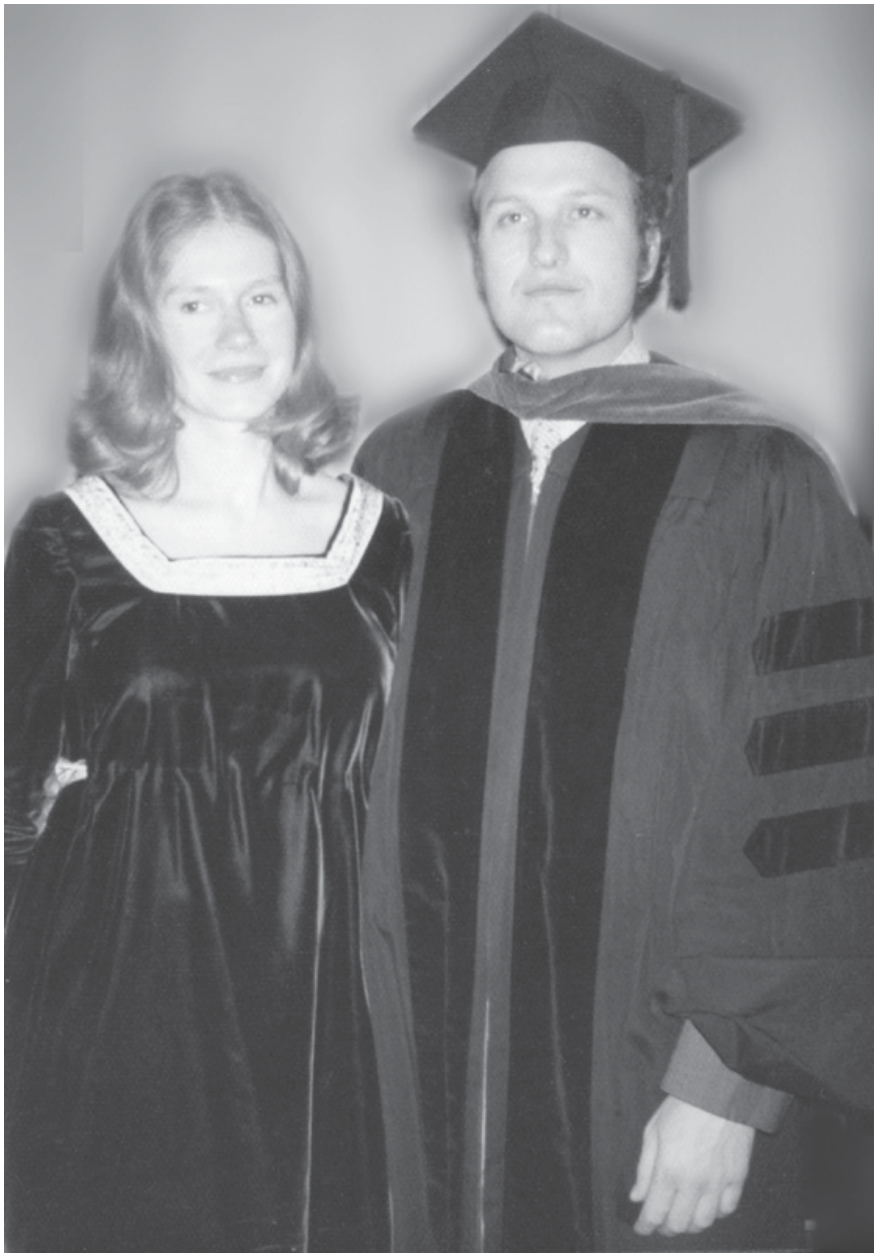
Then came the biggest struggle—deciding on a research question for my dissertation, with Dr. Travis Thompson as my advisor. I started

off with the question, "What can I learn from the human genetics of people with catatonic schizophrenia?" I asked Dr. Thompson what he thought I needed for an adequate sample, and he suggested I investigate Rochester State Hospital in Rochester, Minnesota. Exploring their case records, I found that in the 20s, 30s, and 40s, there had been a fair number of patients with that diagnosis, but in the 50s and 60s there were none. When conferring with Dr. Francis Tyce, medical director at the hospital, I asked what happened to people diagnosed as catatonic. He said, "You have to look at who trained the psychotherapists. This unstable phenotype is nothing you want to look at."

In my second shot at a good question to explore, I chose to characterize the variability in Down syndrome people's rate of responding and pauses between types of responses when receiving temporal versus continuous reinforcement. The subjects had been given deamphetamine sulfate to control hyperactivity. I did this research at Faribault State Hospital.

I designed a machine with a light that switched on to cue the subject to push the bar, after which they received a marble that could later be exchanged for a treat. Dr. David Merrill, a full professor of genetics with a strong background in the area, agreed to be another one of my advisors. My thesis topic was "Do Down syndrome individuals respond slower and can they discriminate an operative schedule of reinforcement?" However, I didn't have a very large number of subjects (only ten), plus, due to HIPPA regulations, I was not able to look at parental genes, and the intervention took more than an hour with each individual. So for the full six months of the research, I was there ten hours a day. Margy was teaching school so that we would have sufficient financial support.

In the end, the data showed that there was variability in their response. Dr. Merrill said, "You may not have shown what you wanted, but you did show variability in their response." Dad came to take Margy, Mother, Dr. Thompson, Dr. Merrill, and me out for dinner to celebrate the conclusion of the study. Dad commented to me later, "You know, for all that work you put in, you could have been a real M.D."



Margy and Dave upon his graduation from University of Minnesota, 1974

Dr. Peg Giannini

In the meantime, I had applied for jobs. One was the Director of Behavior Modification at the Mental Retardation Center of the New York Medical College in Valhalla, New York, about thirty miles north and slightly west of New York City. The director, Margaret "Peg" Giannini, M.D., had started a service for the parents of children with mental retardation in the basement of the Flower and Fifth Hospital in the late 40s. Peg proposed the development of a university-affiliated facility (UAF) to continue her work and advocated for a research institute at the National Institutes of Health (NIH). With the help of Eunice Kennedy Schriver, who was sponsoring the Special Olympics, and by hounding the NIH National Institute of Child Health and Human Development, Peg received funding and formed the infrastructure for a UAF.

In 1974, Peg hired me as Director of Behavior Modification at the Mental Retardation Center of the New York Medical College, Valhalla, New York, to spend half my time in genetics and half in psychology. The person who was responsible for the genetics part of her facility left shortly after I arrived.

Back home, Margy, who was finding it difficult to have no extended family nearby, summed up my situation by saying, "You don't like what you're doing. They did not do what they said they would do. You did all this and they didn't deliver." Being young and sure of myself, I announced, "I'm going to leave." Peg said, "That's not a wise career decision, but if you decide to leave, I'll continue to back you."

Polly Lucille

We were living near Pleasantville, New York, and I was working at the New York Medical College, when we welcomed our youngest child. On March 14, 1975, we left on a very stormy night to take Margy to Phelps Hospital in Tarrytown, New York, also known as Sleepy Hallow Hospital. All that day the weather had been turning cold, and by the time

we left conditions were becoming icy. After arriving at the hospital, the doctor had suggested that since the timing between the contractions did not seem to indicate that the birth was imminent, I should take Margy home so she could rest in comfortable surroundings. I said no thanks. "Okay, you can stay here," was the reply. Twenty minutes later, Margy, who didn't want any pain medication, said, "I give up. I'm delivering!" I said, "The doctor said you have a lot of time." Then I looked down to see a head emerging. The doctor delivered her in the labor room.

Polly Lucille Gray, 1975

I was so happy. She was beautiful, with a head shaped like David's and giant brown eyes. A few days later, back home with David and Beth, ages seven and five, our new daughter was a big hit. They fought over who would take care of her.

Polly Lucille was named after my Aunt Polly and Margy's mom and my mother's mom. But since we were now in New York with three kids without any help from extended family, it was difficult.

Dad's Death

In the autumn of 1975, my father, with a medical history of a stroke followed by a heart attack, died due to cardiac insufficiency. It was traumatic. He'd been a big supporter to me and loved the kids, especially Polly, whom he called "Pumpkin."

He'd suffered his first stroke at age fifty, while I was still in college. Due to poor health, he had retired at age sixty. During his active practice, he'd delivered seven thousand babies and performed seven thousand major gynecological surgeries.

Standing: Dave with baby Polly and Mother Marion.
Seated: Margy, Beth and Father Fred Gray.

Back to Minnesota

Even before Polly's birth, Margy had been working full time and wanted to get out of New York. She put her foot down and said, "We've moved away from our parents, and it's economically difficult."

So I found a job at the Rochester State Hospital doing research projects with the Mayo Clinic in the subdivision of developmental disabilities, where 190 people were receiving services. My ace in the hole was that Dr. Peg Giannini had promised to back me.

On our drive back to Minnesota, I wanted to try a slightly different route and we drove along the east side of Lake Huron on our way to the

Cottage at Nipigon. From left: Ryan, Beth, Polly, Dave, Tallie

islands in Michigan to camp overnight with the kids. Upon hitting the Upper Peninsula, we approached the Mackinaw Bridge, near to where my grandparents had built their cottage in 1923 on Lake Huron. I really wanted the kids to see where I had spent many summer days during my childhood. From there, we drove to Faribault to drop off all our furniture. With Grandma and Grandpa available to babysit the kids, Margy and I headed to Rochester, where I checked out arrangements for my job and she found a farmhouse for rent for one year. The farmhouse belonged to Judge Gerald (Gerry) Ring, who was studying at Harvard for a year. We loved the house and quickly settled in. We also got to know the neighbors, Jim and Mary Rodrick.

1976 Christmas Card. From left: Polly, David W., Margy, and Beth

Chapter Six

1976

New House

I enjoyed my first year on the new job. Dr. Tyce treated me like a son and invited me to join the local Rotary Club, where we'd laugh ourselves silly with some of the speakers.

Since I was happy in my job and the house we occupied was available for only that one year, we decided to build a house. Due to lack of funds, I became the general contractor. After contacting the lumberyard, then carpenters, roofers, plumbers, sheet rock installers, and an electrician, the house was starting to take shape.

The Byron, Minnesota, house under construction.

July 14, 1976

On July 14, 1976, I had an appointment at the Mayo Clinic to talk to a geneticist about the genetics of autism. We had submitted a grant application and at that meeting I was to learn if it had been awarded to us. I had dressed for the occasion—I had on a sport coat, dress pants, and my good shoes and was about to leave when it started to sprinkle. The builders had just recently cut a hole in the roof for the chimney, and although I had tried to reach two carpenters to cover it, no one was available that morning. So I climbed up the stepladder, placed plastic sheeting over the hole, and three times carried a brick up to the top step of the ladder, placing a brick on each corner. When I went up a fourth time, I slipped, flipped over on the porch landing, and fell ten feet down onto the dirt below. I couldn't move and could barely breathe. Margy came outside, followed by Beth and David. I was sure I was going to die.

When the ambulance arrived from St. Mary's Hospital, the EMTs, who were Vietnam veterans and knew how to perform evacuations, got me onto a stretcher and raced me to the emergency room. In the ER, one of the residents I had played squash with the day before broke down crying. Staff found a second resident to place me into a halo traction to stabilize my neck. I was in the Intensive Care Unit (ICU) for the following three weeks, then moved out for a few days before having to go back to ICU.

The next time I was discharged from ICU also lasted only a few days. I had developed gastric reflux and was bleeding through my nose. Around 3:00 a.m., Sr. Rita was making rounds and stopped by my bed and announced, "He's coding." The activity picked up and they placed tubes for drainage and provided me with oxygen for breathing. They saved me, and after a few days I was again placed in a step-down unit, where I was discovered to have a bleeding ulcer. After a week I sort of leveled off again, got out of ICU, and was placed in a step-down unit and then transferred the rehabilitation (rehab) unit. That's when I met Dr. Opitz in the hallway and he told me how I had to realize that my life had changed and I would be faced with new challenges.

Margy and Dave, September 1976

For one long, torturous year, I tried to be able to lift myself high enough to dress. It didn't go well. Finally Margy said, "It's easier for me if you let me dress you." That was a huge transition. The occupational and physical therapists worked long and hard on getting me to walk, which was not successful. Instead we focused on writing and typing. Then came Activities of Daily Living (ADLs) rehab, where I relearned how to wash my face, shave my beard, and feed myself. I never quite mastered the complete skills to dress myself because I couldn't get my feet into my pants.

What a happy time on Thanksgiving 1976 when I made my first trip home to play with my children and sleep in my own bed! Though I was home for only two days, it renewed my spirit. And what blessings we received from friends, colleagues, and neighbors who helped finish the construction of the house. It makes me cry even today to think of it. On Christmas, an ambulance again took me home for the day.

Setback

I'd just had my halo off for a month when it had to be put back in. I started tracking my strength, as I had a lifting device that measured how much I could lift with each arm. My chart notating the innervation I had achieved hung on a clipboard on the back of the door of my hospital room, number 232. Every day, upon my return from the hospital gym, I would mark the chart myself to keep track. I was up to seventeen pounds on my right and fourteen pounds on my left arm.

Then I developed a skin ulcer on my left hip, and to encourage healing, they placed a Spika (plaster) cast from my mid-chest down to my hips; it was heavy. I began losing strength and was down to 129 pounds.

One day, brother Fred made a surprise visit. He'd been visiting Mother, who suggested he come to see me on the mat where I exercised. It was December 17. Just days before, I had been struggling on that mat trying to transfer myself; that day, I looked up at the ceiling mirror to see Fred. He was crying. All the anger I felt for him through all those years of teasing dissipated. We remain close to this day.

On January 17, 1977, the physical therapist providing my therapy accidentally dropped me, which knocked my halo loose. The doctor from the ER came running in. I was screaming in pain, but couldn't make any noise. When the resident from orthopedics finally arrived, Margy had to tell him that my halo was loose. I told her to call Dr. Opitz, and he had someone there in ten minutes. They re-screwed my halo, and for the next two weeks, I got my second round of trying to adjust to living with a halo.

My chart showed my strength dropping from 16, to 14, to 12 pounds. Dr. Opitz came for a visit and asked, "Do you have a problem? They tell me you're depressed." He called for a psychiatric consult, and two teams of doctors on grand rounds showed up. (Grand rounds are the way physicians teach newer doctors to observe how interesting cases are treated during a hospitalization.) I identified one of the residents on rounds as a former classmate from graduate school. She

stayed behind after the others left to ask, "What's going on here?" I told her I was in so much pain I could hardly move. Though I never received an explanation, the grand rounds from psych stopped.

Five teams of neurosurgeons were also scheduled to make grand rounds, but thankfully only four showed. Dr. Opitz returned to see me and then called in Dr. Thor Sundt, who arrived the following day at 6:00 a.m. explaining that although he had surgery scheduled for other patients that day, he'd arrived early with the team at the request of Dr. Opitz. Then he proceeded to kick out the rounding residents and slammed the door shut. I greeted him with, "Apparently you're the last one," referring to the many rounds of neurosurgeons to which I had been subjected.

"What's this?" he asked when he saw my graph. I had been keeping it independently and the data had *not* been recorded on my medical record, nor had the dropping incident! Dr. Sundt talked with me further and added, "I'm going to talk to your wife." He wanted to know if Margy would be able to meet with him for ten minutes the following day, explaining, "For the rest of your life, you're going to be a lot of work. She needs to be ready or take different actions." (That ten-minute meeting would turn into an hour.)

The morning after their meeting I was expecting to hear the click-click-click of the footsteps of many people approaching for rounds, but instead just one showed up—Dr. Sundt. He had met with Margy and told me she was the most impressive wife he'd ever met. He asked, "When do you want surgery? Friday or Monday?" Finally after three months of fighting to keep from losing my arm strength and seven months of pain, I had hope for some improvement.

On that Sunday, April 17, 1977, the family my father had worked for in Maine sent enough lobster for me, my brothers, my sister, my mother, and neighbors. We all enjoyed a delicious dinner.

The following morning, Dr. Sundt cut me open to pull back the bursa (special layers covering nerves).

Post-op, I awoke in the recovery room to see Dr. Sundt in scrubs. He looked so remarkably like my father I thought I was dead!

Beth, Margy, Dave and Polly

Dr. Sundt began to describe my surgery. "I could see at the foramens there were twenty-two bone chips between C 5 and 6 on both the left and right side. You poor *?!! How did you live through all this?" He then went on to explain that he had picked out all the bone chips on the right, but only one or two on the left—the other chips were too embedded. Removing those would risk loss of my left arm function and a very painful left side.

Then he said, "Okay, lift your neck." For the previous four months, my neck had been so painful that I couldn't move it. He had me bring my chin down a little, then down another inch, and then down and down until I could touch my chest. Best moment of my life! And after that, I needed almost nothing for pain. I still don't know if I should credit him or Dr. Opitz; if not for Dr. Opitz, Dr. Sundt never would have visited.

I was discharged from the hospital July 14, 1977, exactly one year from my day of admission. Because the occupational therapy (OT) and physical therapy (PT) staff at the Rochester State Hospital had everything arranged for me back at home, such as a ramp, widened doors, and lots of necessary assistive devices, I returned to work the next day.

Chicken Day

We lived in Byron, Minnesota, in the home we had been building when I broke my neck. A small community about ten miles from Rochester, the whole neighborhood put on "Dave Gray Chicken Day" in an attempt to raise money. They raised $3,000 to $4,000 selling various garage sale items and serving freshly prepared chicken with all the fixings!! We used that toward purchasing a van, which my cousin John sold us at wholesale price. The van without adaptations was $10,000. When it was finally fully equipped, it cost much more.

While I was an in-patient in 1976, all of my friends came to visit me in Rochester at some time or another. Some even brought money. It's hard to describe what that did for me. Each in his own way

brought me a boost in self-confidence. If those guys had faith that I could make it, then I figured I was worth it. What an invaluable gift at that critical time. Though some have since passed on, they were and remain *good* friends.

Clockwise: John Ishikawa, Chris Isley, Margy, Dave, Steve Landfried, David W., Beth, and Polly seated in her father's lap

Chapter Seven

First Steps on Another Journey

The Search

It soon became clear that I wasn't going to become a professor of behavior genetics. The forty letters of application I'd written to universities around the country resulted in only two replies, both of which said their campuses were not wheelchair accessible, which back in 1977 was legal.

Dave and his adapted van

I continued to do research at the Rochester State Hospital, and about a year later received a telephone call from Dr. Travis Thompson asking, "You still like that job?" I do not recall my answer, but the next thing he said was, "You're not using your intellect. There's a job opening at National Institutes of Child Health and Human Development (NICHD) to review all their holdings on mental retardation." He then proceeded to make arrangements with Joyce Pilcher, who, over the telephone, asked me if I was capable of doing the job. I told her, "Unless it's lifting weights, I can probably handle it." She immediately asked, "When can you come out?"

After making arrangements for a plane ride and freeing up Margy's schedule, we flew into the capital city and went out to National Institutes of Health (NIH), where I met and interviewed with Joyce, who was Personnel Officer for Child Health. She then disappeared for ten minutes or so and returned to say, "Can you come down the hall?" I was then ushered into a room where I met the Director of NICHD, the chief administration officer, and the chief financial officer. We chatted and they said, "We'll let you know." Joyce reassured me, "Don't worry about it."

Margy and I returned to Byron and I went back to work at the hospital. After a week or two, Joyce telephoned to say, "Good news! Do you want the job?" I accepted and told Margy, who said, "You're kidding aren't you? That's an expensive city." Six months later, we drove out. Driving east into the Cumberland Gap area in our old Plymouth, there was a traffic jam and the radiator boiled over. Welcome to D.C.!

Somehow we got it under control, but when we started up again, we were running out of gas and barely made it to a gas station. Arriving in D.C. a little later than we had planned, we found the Marriott where the NIH had made arrangements for our stay, which was called Pook's Hill Hotel. It wasn't far from Bethesda, Maryland, and was near the Capital Beltway and Rockville Pike interchange. We stayed there for three weeks while Margy found us a home to rent in the pretty little suburb of Kensington. It was owned by one of our friends, a CIA agent who was scheduled to leave town for the next year. With a big backyard, it looked ideal. When we moved in, the kids came upstairs to

jump on our bed. That first night we heard what sounded like a bomb going off, but it was only the Amtrak train that ran close by. After a while, it was only at night that the loud sound was a bother. Since I was on administrative leave from the State of Minnesota and had accepted an intergovernmental personnel position, I would be able to return to my job in Minnesota if things didn't work out.

1981

I did a good job on the review panel at NICHD and reported to Rear Admiral Eileen Hasselmeyer, who was well organized and had hired really bright people. Her rear admiral title was due to her esteemed position in the Public Health Service, and she wore the uniform. One day, all of us working on the same project headed about five blocks down the street to NIH offices in the Bethesda Landow Building. I was rolling along with some people, but soon found myself following behind our herd. When Eileen spotted me as cars lined up to allow me to cross, it scared her. She got me back up on the curb and walked alongside me across the street. "You and I need to have a meeting with the director. You should not be left alone," she said, referring to the fact that I seemed to be in a precarious position. The following day, the director said that I should meet with Joyce to find someone to accompany me while I was at work. Joyce said, "I'm not sure how to do that. I've never hired anyone to that type of position." A day after, I had several candidates to interview, and Mr. Lindsay Branson became my attendant. At first it was difficult for me to have a person pushing me around, but the further I got into my new position, the more I knew I needed Lindsay's assistance to do that job. It gave me the power to get around, go to the bathroom, open doors, and so on.

Then came the issue of applying for a permanent job. To get the interim position I held, I hadn't had to fill out a SF36, the form NIH uses for job applicants. I completed it post-haste and sent it to personnel. To get a scientific position requires the rating of GS (Government Service)

13. My application had been rated GS 12, so NIH would not consider my application. I figured I was stuck and began thinking about moving the family back to Minnesota. Then, out of the blue, at Landow I met up with an old friend who had done research on mental retardation, Peter Vietze. He took one look at me as if to say, "What's the matter?"

"I'm going to have to leave," I started out and then proceeded to explain my disappointment at being graded in a way that excluded me from using skills that I had. Peter assigned me the task of reading some other curriculum vitae to surmise how they met the appropriate GS grades. I worked on my application again, submitted it, and was selected for a job in the Human Learning and Behavior Branch of NICHD.

Health Sciences Administrator

NIH is composed of twenty-seven institutes and centers, each with a specific research agenda, often focusing on particular diseases or body systems (see www.nih.gov/about). The chief of the branch for which I was selected (Human Learning and Behavior) was Norman Krasnegor. Also hired at the same time as I was Phyllis Berman. Each of us received a portfolio of grant applications to review to determine if they were worthy of receiving funding. Mine were on the topics of reading, mathematics, and drawing, and Phyllis was looking at those in child development and learning. After our reviews, the NIH would get three additional reviewers from outside the system to provide comments. Staff members who work for the government are not allowed to vote on funding decisions.

We also provided coaching to grant applicants. The three of us, Phyllis, Norman, and I, would receive outside calls from applicants asking for assistance with their grant applications. One of us would answer their request, review their grant, and then suggest changes in the writing, provide advice about including minorities in samples, or advise them if the project did not have sufficient merit. If they could make changes, we'd suggest that they do that and resubmit it for scoring. Those that finally made it through got funded.

We might consider twenty to thirty grant applications at review meetings, the results of which were shared with applicants in a telephone call. This process occurred three times a year as a council of eighteen of the most distinguished scientists were asked to make presentations, usually with a couple months for them to prepare, although sometimes there was little warning. In my position as a health sciences administrator, my job was to sit on the sidelines as this occurred, simply shepherding the process.

The grant review rules made it clear that there would be serious consequences if they were violated. Voters at those meetings were incognito so other members couldn't know who was voting. The executive director of the review study section was tasked with editing and summing up what had been discussed. During the discussion, he was not allowed to even make a facial expression. Since the applicants were not present for the review, the process included remarks and rebuttals.

For example, in the area of science that a given director and immediate supervisor were responsible for, the application might not have adequately covered a particular topic. Let's say there was $890,000 a year available for learning disabilities research. Some people in the review process may have voiced an opinion that there were an insufficient number of applications so I'd have to get more people interested by providing applications to those areas and advertising to the public in the Federal Register.

From the summer of 1981 through 1985, I worked on developing a program in learning disabilities and made a couple of grant announcements. We received some applications from university-based programs. We were looking at possible underlying causes of learning disabilities, such as areas where part of the brain might be smaller, like the corpus callosum and the visual perceptual area. We would hold meetings with the learning disabilities researchers who had that area of focus.

In 1985, we held one of those meetings at a conference in Wisconsin that focused on genetic, biological, economic, and sociological markers. Those in attendance included Frank Vilatino from New York, who felt strongly that the cause of learning disabilities or markers of learn-

ing disabilities were in the visual perceptual area of the brain. People attending from the Orton Dyslexia Society felt equally strongly that it was in the auditory channels. The Harvard researchers thought brain size made a difference, and the Yale group, connected with Haskins Laboratory in Connecticut, attributed it more to educational developmental age. Others believed it was masked over by lack of resources—socioeconomic factors. At one point, two people with opposing views were standing and talking loudly on stage as they approached each other to bump chests!

What an exciting conference. Very verbal and expert researchers presented ideas. The participants were able to return home and manipulate these ideas into applications for grants. These meetings developed both the research and the grant supporting the research by bringing together the key people doing research in that field.

How did I like it? I was interested in hearing the reviews and did that for four years.

Home in Washington, D.C.

After the two years at the Kensington house we rented, we purchased a home on a corner lot just four blocks away. The house was in the style of Frank Lloyd Wright and needed minimal adaptations. It was built on two levels, a main floor and a basement. With two bedrooms downstairs and two bedrooms, a kitchen, dining room, and a study on the first floor, it fit our needs. The backyard consisted of tiered gardens, which Margy loved.

In 1985, we all had our sad days. Polly discovered that David was leaving for college and had decided to do so without asking her. She cried. After he left, I cried every night for six months, and so did Margy. David was such a help around the house we couldn't imagine what it would be like to be separated, but we all made it through. He went off to be a successful student at Carnegie Mellon University. When it came time for graduation, my mother insisted on attend-

The Grays' beautiful Kensington home

ing the ceremony. A family story that we reminisce about is how she wanted to pay for our dinner following the event, "but not at the Hilton," she added. Fifteen dollars a plate was what each of us was allotted. So we had dinner and a good time toasting David. When the waitress brought the bill, Mother fiddled with her blouse and pulled her money from her bra. We continue to love sharing that story. Mother died in 2009, and we miss her so.

Dave's mother, Marion Gray Lathrop

Chapter Eight

Paradigm Shift

Short History of the Disability Movement

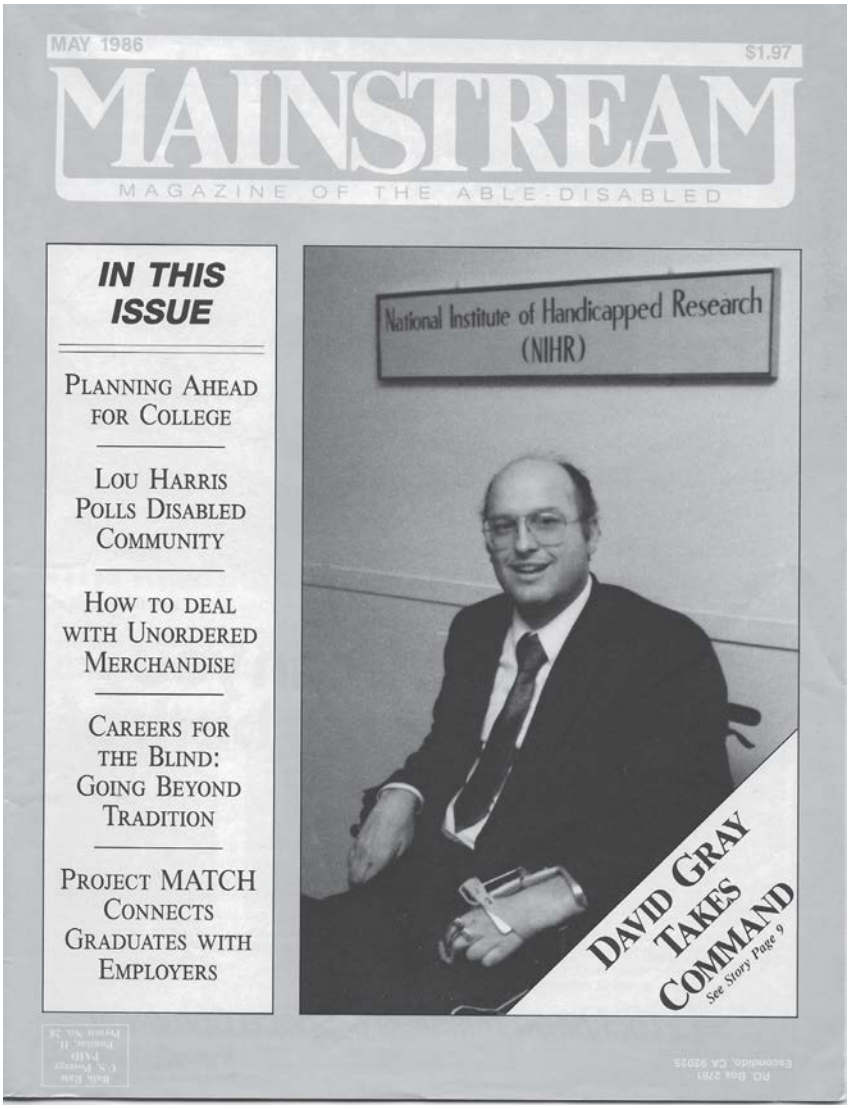
During the 1930s, this country had Franklin Delano Roosevelt as our president for four terms. He served while using, for many hours a day, a wheelchair. He had the Secret Service destroy photos and even the cameras of those wanting to expose his disability—a result of polio.

President Franklin D. Roosevelt (public domain photo from the FDR Library)

At the same time, Charles Dight, an American medical professor in the 1930s, thought eugenics was the way to go and wrote letters to Hitler congratulating him on his achievements. What a contradiction to advocate killing someone with a physical disability even as the president of the United States had a disability.

1960s

Lex Frieden and Justin Dart, both people who were quadriplegic, formed the National Council on the Handicapped (later changed to National Council on Disability), which in 1964 pushed their agenda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IN THIS ISSUE
PLANNING AHEAD FOR COLLEGE
LOU HARRIS POLLS DISABLED COMMUNITY
HOW TO DEAL WITH UNORDERED MERCHANDISE
CAREERS FOR THE BLIND: GOING BEYOND TRADITION
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National Institute of Handicapped Research (NIHR)
DAVID GRAY TAKES COMMAND
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to make disability part of the Civil Rights Act. Both of them have had considerable influence in the Senate and the House.

Ed Roberts, often referred to as one of the fathers of the disability movement, had post-polio syndrome and became one of the most powerful people in the disability movement. With symptoms so severe he slept in an iron lung at night, he became the first student with significant disabilities to attend University of California, Berkeley.

Years later, as I became involved in disability rights, he'd say to me, "Dave, you have to get mad—anger is the best thing we've got going for us." When he first tried to get into the University of California, Berkeley, they had said no. He believed that what people with disabilities needed, as a group, was the means to get around and a place to recruit skilled attendants. Through ongoing advocacy efforts while finishing his degree, he finally got that assistance for himself, but as he approached graduation, he asked, "What's next?" He set about getting skilled attendants for disabled students who needed assistance with activities of daily living in the school dormitories. He went on and on tackling one barrier after another.

1970s

It was the 1970s, and the disability rights movement was doing just that, tackling one barrier after another. Soon, people with disabilities were having sit-ins in San Francisco government buildings. These protests became famous in 1978 as able-bodied people brought the activists food and other essentials. One of the leaders of those protests inspired me. Judy Heumann was a disability rights leader who became Assistant Secretary for Special Education and Rehabilitation Services. She and Ed Roberts founded the World Institute on Disability in 1983. Max Starkloff held similar activities in St. Louis, Missouri. He and his wife, Colleen Starkloff, a former registered physical therapist, plotted to have him moved out of the nursing home he'd been living in for fifteen years—a difficult and somewhat radical action at the time.

As Ed Roberts had told me, transportation was a key battle for the disability rights movement. In Denver, Colorado, the Department of Transportation was forced to shut down a highway because of a hundred people in wheelchairs blocking the way. Back in St. Louis, seated in a wheelchair, Max Starkloff waved down a bus equipped with a ramp. The bus at first slowed down but it didn't stop. A second bus equipped with a ramp slowed down and the driver said, "My lift doesn't work." They didn't realize until the six o'clock evening news that someone had been in the bushes nearby filming. CBS had captured it for all our citizens to see. That was the end of segregated bussing in St. Louis. Max's next move was to start a center for accessibility in St. Louis, Paraquad (www.paraquad.org). One might assume he would only concentrate on paralysis or inability to move limbs, but he had a Deaf friend who joined as a partner, and they later added programs for people with developmental disabilities. Paraquad now has forty programs for groups with special needs.

I believe that as a country, we still need to sit down and learn what is offensive to minority, disability, and other groups. The paradigm shift we need has a multitude of aspects. One is that employment is not a right but something we earn. We wanted equal rights and equal opportunity. This involved people on the cutting edge who concentrated on political activism and focused on transportation (accessible taxis, busses, and airlines, curb cuts, etc.) Now, we need to focus on self-direction in terms of employment and meaningful work. One might best summarize these aspects as moving disability from a charity industry to one of independence and self-direction.

The journey of how I became involved in shifting the paradigm to look at disabilities through a lens that envisions changes in the environment begins in the political arena of Washington, D.C. There is where I began to work for disability rights: to assist people to be able to live in the community, to have meaningful employment and accessible transportation, and reduce negative discrimination.

A Poem of Praise and Lamentation Upon the Departure of David Gray

Commonly known as an elegy for Gray, it is written in dactylic hexameter, and mournful couplets.

(1) The Landow clocks do tell of ending day.
The silent crowds descend by two or three.
The AO homeward wends her weary way,
And leaves the world to darkness and D.G.

(2) Now fades the glimmering landscape on the sight,
And all the air a solemn stillness holds,
Save for the Landow mouse, whose teeth are bare and bright,
Does gnaw at some forgotten luncheon rolls.

(3) One more call and then it's time to leave.
This mild and friendly chap smiles at his phone.
Kindness, love and charity drip upon his sleeve.
No sins has he for which he must atone.

(4) Then to his van he scurries as before.
Bares he down upon that truck with eye of steel.
Makes gestures at unseen knobs beside the door,
And mounts the cab and grabs the steering wheel.

(5) Now, no more gentle soul is he;
No bland monk or peaceful flower child.
With gas enflamed by battery,
The Death Mobile flies forth in abandon wild.

(6) His countenence now shows it's been transformed,
From angelic smile to deep demonic glare.
With jetting jaw where soft line had been observed,
Red temples throb where face had been so fair.

(7) Down Chevy Chase's roads the van doth surge,
Mocking God; no fear of broken bone,
The driver laughs at signs that plead he merge.
As would some errant knight, he fights his way toward home.

(8) But as to that house he comes again,
The devil fades from brow and eye.
With thoughts of Margie in his brain
A Dr. Jeckyl who was a Mr. Hyde.

(9) The retransformation is now complete.
The van parked gently without strife.
Like its driver's face, with love replete
The Death Mobile becomes a Chariot of Life.

James F. Kavanagh
April 11, 1986

It's Who You Know

The mission of NIH is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability. I remember telling one of the directors of NIH that I thought measuring the environment and participation of disabled people would improve their lives and insisted that though our mission was to fund the best science, often the ideas most highly relevant to that improvement didn't get funded.

Therefore, I became part of a coalition of people who, for different reasons and with different skill sets, identified new parameters for the grants for which researchers could apply. We wanted to see things change for the better for disabled people.

In the spring of 1985, at another conference on learning disabilities, I met Dr. Douglas Fenderson, who was Director of National Institute on Handicapped Research (NIHR, which later became the National Institute of Disability and Rehabilitation Research, or NIDRR). We got along well. One evening, Margy and I invited Doug to come to our place for a backyard barbecue. As we were casually discussing the NIHR, he was describing how he didn't enjoy working in a large bureaucracy with all the craziness that involves and asked if I'd like to apply for the position as Director of NIDRR. The timing was great, and I was interested.

UNIVERSITY OF MINNESOTA
TWIN CITIES

Department of Psychology
Elliott Hall
75 East River Road
Minneapolis, Minnesota 55455

13 September 1985

Senator David Durenberger
375 Russell Senate Office Building
Washingon, DC 20510

Attn: Chip Kahn

Dear Senator Durenberger:

I am writing to urge you to support the candidacy of Dr. David Gray for the position of Director of the National Institute of Handicapped Research. I am very familiar with Dr. Gray's qualifications since I served as his doctoral advisor here at the University of Minnesota, and have worked closely with him in his capacity as a Health Sciences Administrator at the NICHD in Bethesda. As a former member of an NICHD peer review panel, I had numerous opportunities to observe Dr. Gray's professionalism in action.

Dr. Gray has qualifications which are truly rare. He is a first rate scientist who spent the past 10 years working in the area of handicapping conditions, as a researcher, clinician and as a science administrator. He has seen problems of the handicapped from the perspectives of the basic laboratory scientist, from the service providers' vantage point [he directed a treatment unit at Rochester State Hospital in Rochester, MN] and from the client's vantage point. Dr. Gray is, himself, physically handicapped resulting from an accident. His past few years work with the NICHD has also provided him with a National perspective of science policy.

Dr. Gray is truly an extraordinary person. He was always a conscientious, hard-working, ingenious person before his accident, but the personal qualities that have been required for him to excel in an able-bodied world as a physically-handicapped professional have been remarkable. I urge you to look into Dr. Gray's qualifications and to support his candidacy as the next Director of the National Institute for Handicapped Research.

Thank you for your attention.

Sincerely,

T. Thompson

Travis Thompson, Ph.D.
Professor

Beginnings of NIDRR

To improve my chances of getting the position, Doug told me to contact every political person I knew. There were four groups of people that I needed to involve. Group A consisted of political leaders and political activitists. That summer I met Louise McKnew, an attorney who'd worked at the U.S. Information Agency and is best known for her work with a consumer advocacy nonprofit, Public Citizen. She'd become friends with Senator Edward "Ted" Kennedy and his assistants; Evan Kemp, a lawyer who had muscular dystrophy; and C. Boydon Gray, who hailed from North Carolina and became a lawyer for Vice President Bush. Louise also had a son attending Yale who had broken his neck in an accident in 1978. Louise heard there was "a quad working at NIH" and really wanted to meet someone who could motivate her son. I felt I had done something with my life and could be a good spokesperson.

When I met Evan Kemp, he introduced me to several people with disabilities who had leadership skills. Evan had muscular dystrophy, and despite the fact that he was wobbly on his feet, the people in charge of parking at the GSA (Government Service Administration) had made him park outside the building. He fell, never to walk again. He quit his government job and sued. Part of the settlement was that people who had trouble walking would have access to the parking lot under that government office. Then he joined Nader's Raiders, a citizens' advocacy group, and blocked the entrance to the Metro in Washington, D.C. He wanted two elevators per station. Evan knew George Covington, who was legally blind and who was to become Special Assistant to the Vice President of the United States on disability policy, who at the time worked for the Department of Interior (DOI). George had written the DOI's section 504 regulations of the Rehab Act of 1973. When he filed a complaint against the DOI, his complaint ended up on his desk, as he had written the regulations. It was so absurd. He knew they just wanted to pass over his complaint and called himself "the Fed person with the longest-acting detail who they wanted to pass over sans lawsuit." Evan created a network and introduced me to several disability leaders.

EDWARD KENNEDY, JR.

February 4, 1986

Love to you, Rosie
& have a grand time -
be sure to meet
TK & Kirk - both are
fine young men!

Mrs. Louise McNew
Nat'l Spinal Cord Injury Foundation
2550 M Street, N.W.
Suite 280
Washington, D.C. 20037

Dear Mrs. McNew:

Please join me at a news conference and luncheon to launch an exciting new exercise program for people with physical disabilities..."Fitness is for Everyone." The event will take place on February 26, 1986, at 11:30 a.m., at the National Press Club (13th floor), 14th and F Street, N.W., Washington, D.C.

A series of six videotapes offering a complete program of strength, flexibility and aerobic dance has been developed by the National Handicapped Sports and Recreation Association with underwriting from Invacare Corporation. These exercises have been developed specifically for use by paraplegics, quadriplegics, amputees, and persons with cerebral palsy and other physical impairments.

A physical fitness program for people with special physical challenges has never been available before, and it is my hope that "Fitness is for Everyone" will create many new instructional and motivational opportunities in this area.

The professional fitness instructors and disabled athletes who serve as demonstrators on the videotapes will be at the reception, and we look forward to telling you more about this exciting program.

Please call (202) 728-8793 by February 19 if you plan to attend. See you on the 26th.

Sincerely,

Teddy Kennedy

Edward M. Kennedy, Jr.
Executive Director
Facing the Challenge, Inc.

Kirk Bauer

and David Gray

In the field of special education were advocates Cyndi Jones and Bill Stothers in Berkeley, California. Cyndi was an editor of *Mainstream Magazine* and served on the board of directors of Able-Disabled Advocacy. Bill was a journalist at *The Globe and Mail* and *The Toronto Star* and was an editor of *Mainstream Magazine* and corporate secretary of Exploding Myths, Inc. Lex Frieden, the Executive Director of the National Council on Disability, came from Texas. Ed Roberts, of course, came from California. Ed Martin came from Long Island. I called each of them to ask what they thought was the original intent of the NIDRR.

Dave Gray with Dr. Peg Giannini

Assembling Group B involved another aspect of "it's who you know." When my mother heard about what I was doing, she wanted to know how to get on the bandwagon. She called Betty Ford and convinced her to donate money for wheelchair accessibility in Grand Rapids. Mom actually wanted me to go to lunch with Mrs. Ford.

Someone wrote or called Peg Giannini, who had just become a national figure in the science of rehabilitation and had been, in 1980,

the first director of the NIHR. Senator Dave Durenberger, a longtime supporter of health care issues, became involved. Representative Paul Henry from the Fifth District in Michigan, who took over Gerald Ford's old seat, came on board to join our cause. Even Lowell Weicker, Representative from Connecticut, joined on. They got other politicians to support my appointment. And the former governor of Minnesota, Al Quie, was another great supporter.

I was also getting researchers to support me. Dr. Harlan Hahn, who used a wheelchair post-polio, had thoroughly studied the issues of disabled people concerning the environment. One afternoon he said to me, "Dave, let's go for a roll." Off we went through downtown D.C. Upon arriving at the first curb cut, he rolled across and said, "Dave, you are healed! You're no longer curb disabled. Roll!" I said, "Amen, Brother, I'm healed."

As we saw it, the issue didn't require changing research agendas in order to discern what we needed to fix in the environment—that fight is still going on. Basically, the issue was that we needed to see what was going on from a new perspective. The NIH basically funded just research that followed the medical model. I've always had a grudge about that since I learned that NIH and universities charge principal investigators an exorbitant indirect fee of 34 to 60 percent! What was that for? Building more rat labs and machines? I think any overage of money from a grant should be used to modify the environment and measure participation, even if naysayers say that's not science.

Group C of the coalition I attempted to form were the scientists working in the field. When Dr. Travis Thompson told me to spread the word in this community, I knew I couldn't do that alone. Even though I knew who those scientists were and what they did, I needed more than one voice to speak up for me.

Group D consisted of the directors of Independent Living Centers. This included people like Max Starkloff, Lex Friedan, and Ed Martin.

I was perceived as a rehabilitation person or a legitimate scientist in the rehab world, but many of those from Group D resented me because they had worked very hard to achieve improvement for people with

disability with a slightly different vision. They didn't quite see me as part of that vision, yet.

After talking with people in each of these groups about my vision as a potential NIHR director and my interest in the position, I felt I had done as much as could be done to get my name out there!!

GERALD R. FORD

November 5, 1984

Dear Dr. Gray:

Because of my very heavy campaigning on behalf of President Reagan and other Republican candidates for Congress, I have not been in my office in California until this weekend, so there has been some minor delay in responding to your request.

I have, however, now written Madeleine Will and John Herrington of the White House on your behalf. Enclosed are copies of both letters.

I wish you the very best.

Warmest regards,

Gerald R. Ford

David B. Gray, Ph.D.
3803 Everett Street
Kensington, Maryland 20895

THE WHITE HOUSE
WASHINGTON

February 28, 1986

Dear Senator Boschwitz:

We want to inform you that the President has announced his intention to appoint David Bertsch Gray as Director of the National Institute of Handicapped Research of the Department of Education.

We appreciate your bringing David Bertsch Gray to our attention. David is an outstanding individual and will make an excellent addition to the Reagan Administration.

Thanks again for your help.

Sincerely,

Robert H. Tuttle
Director of Presidential Personnel

The Honorable Rudy Boschwitz
United States Senate
Washington, DC 20510

cc: David G. Gray
Joachim L. Opitz

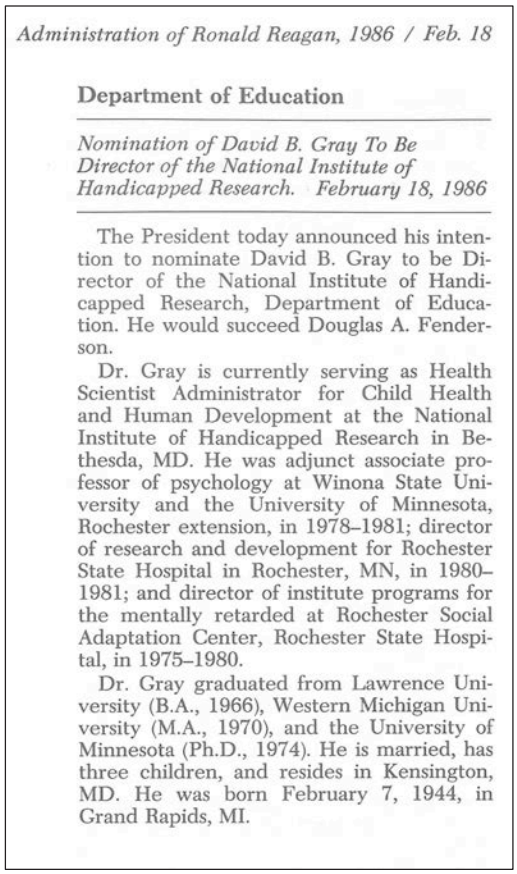
Rudy

Chapter Nine

Presidential Appointment

Waiting Game

Days and days went by while I continued to commute on the Metro to my NIH office in Bethesda. Beginning in November 1985, my key informants kept telling me, "Your name is going forward," but I was wondering just where it was going. Finally, in February1986, I finally received word that I would be appointed but couldn't say anything until it came officially from the White House. They finally held a hearing and on March 31, 1986 swore me in as presidential appointee as Director of the National Institute of Handicapped Research. (Thanks to the help of a lobbyist, the title changed to National Institute on Disability and Rehabilitation Research soon after my assuming the position.)



Administration of Ronald Reagan, 1986 / Feb. 18

Department of Education

Nomination of David B. Gray To Be Director of the National Institute of Handicapped Research. February 18, 1986

The President today announced his intention to nominate David B. Gray to be Director of the National Institute of Handicapped Research, Department of Education. He would succeed Douglas A. Fenderson.

Dr. Gray is currently serving as Health Scientist Administrator for Child Health and Human Development at the National Institute of Handicapped Research in Bethesda, MD. He was adjunct associate professor of psychology at Winona State University and the University of Minnesota, Rochester extension, in 1978–1981; director of research and development for Rochester State Hospital in Rochester, MN, in 1980–1981; and director of institute programs for the mentally retarded at Rochester Social Adaptation Center, Rochester State Hospital, in 1975–1980.

Dr. Gray graduated from Lawrence University (B.A., 1966), Western Michigan University (M.A., 1970), and the University of Minnesota (Ph.D., 1974). He is married, has three children, and resides in Kensington, MD. He was born February 7, 1944, in Grand Rapids, MI.

STATEMENT OF SENATOR DURENBERGER

FOR COMMITTEE ON LABOR AND HUMAN RESOURCES REPORT
MARCH 19, 1986

I AM PLEASED TO INTRODUCE DR. DAVID GRAY TO THE COMMITTEE THIS MORNING, AND I THANK YOU, MR. CHAIRMAN, FOR ALLOWING ME THIS OPPORTUNITY.

DR. GRAY HAS BEEN APPOINTED TO BE THE DIRECTOR OF THE NATIONAL INSTITUTE OF HANDICAPPED RESEARCH OF THE DEPARTMENT OF EDUCATION. I WOULD LIKE TO ADD MY WHOLEHEARTED SUPPORT THIS MORNING FOR HIS CONFIRMATION TO THIS DISTINGUISHED POST. NOT ONLY IS HE A HIGHLY QUALIFIED SCIENTIST, HE IS HANDICAPPED HIMSELF, AND REPRESENTS A MOVEMENT IN THIS COUNTRY TO INVOLVE THE HANDICAPPED IN LEADERSHIP POSITIONS IN RESEARCH RELATED TO DISABILITIES.

I AM PROUD TO SAY THAT DR. GRAY HAILS FROM MY HOME STATE OF MINNESOTA. HE WAS EDUCATED AT THE UNIVERSITY OF MINNESOTA WHERE HE RECEIVED HIS PH.D. IN BEHAVIORAL GENETICS IN 1974. SINCE 1981 HE HAS BEEN AT THE NATIONAL INSTITUTE OF CHILD HEALTH AMD HUMAN DEVELOPMENT.

HE NOW WILL BE A NATIONAL LEADER WHO WILL GUIDE AND SHAPE THE RESEARCH THAT MOST INTERESTS AND AFFECTS THE DISABLED COMMUNITY. THE NATIONAL INSTITUTE OF HANDICAPPED RESEARCH SUPPORTS RESEARCH THAT HELPS INDIVIDUALS WITH A BROAD RANGE OF DISABILITIES. FOR EXAMPLE, IT SUPPORTS RESEARCH ON IMPROVING ELECTRIC WHEELCHAIRS AND MAKING COMPUTERS MORE USER-FRIENDLY FOR THE DISABLED.

DR. GRAY HAS TOLD ME THAT HIS GOAL IS TO ASSIST THE HANDICAPPED TO DEVELOP THEIR ABILITIES AND MAXIMIZE THEIR POTENTIAL SO THEY CAN BREAK INTO THE MAINSTREAM OF SOCIETY AND CONTRIBUTE ON AN EQUAL PLANE WITH THE ABLE-BODIED MEMBERS OF SOCIETY. FOR THIS IMPORTANT GOAL, AND FOR HIS BOUNDLESS ENERGY TO REALIZE THIS GOAL FOR HIMSELF AND OTHER DISABLED INDIVIDUALS, I COMMEND HIM. OUR SOCIETY WILL TRULY BENEFIT FROM HIS CONTRIBUTIONS AS THE DIRECTOR OF THE NATIONAL INSTITUTE OF HANDICAPPED RESEARCH.

First Day

My adjustment to this new challenge had begun. I started working on making changes. My first day on board, Betty Jo Bergland, who administered program operations, told me, "There's a problem. We can't find the grant applications submitted for the Center on Cardiac Rehab from Colorado and other applications." Nobody could find any of them! I asked, "What happens to grants when they come in?" Turns out, anyone on staff could take them out of the building. Shocked, I asked Betty Jo what we should do, and she gave me some options: tell all current applicants on record to submit a new application, ask them to submit some other ideas, or cancel the competitions. I chose to do the latter; I didn't know if that was the right thing to do, but I had to do something. All the announcements inviting universities doing innovative research and rehabilitation research and training centers to submit field-initiated research had already gone out. These also included advanced training grants lasting one to two years for funding physicians doing clinical research and intervention and some grants for rehabilitation engineering. I received some fallout from my decision to cancel the grant competition. In particular, the senators from Colorado began telephoning me to complain that the cardiac funding for their state had been caught in the lost applications.

All the meetings I had were with people who wanted funding and wanted change. These included the Amputee Coalition and people wanting awards for contracts for personal care assistant services and for research on the social security determination process. Ideas came from various centers in many different areas. I met with the National Council on Disability to listen to their suggestions, as well as the Consortium for Citizens with Developmental Disabilities, the National Association of the Deaf, and the National Federation of the Blind. All had similar goals for people with disabilities and each involved groups of citizens as well as groups of professionals.

During the first month or two as a presidential appointee, I received a call from Dr. Henry Betts, Medical Director of the Rehabilitation

Institute of Chicago, who was a personal friend of the Kennedy family. When he arrived at my office, I casually asked, "What can I do for you?" He took the role of an elder statesman and said, "Your position here is very important. We need to make this institute more effective." I treated him with respect by not taking notes but listening carefully. I remember that it was good and appropriate advice.

As a Republican, my fiscally conservative nature aligned well with the administration's goals. As Evan Kemp put it, "Both disability rights advocates and Republicans would like to see more people given the opportunity to work and become responsible citizens." The input from these important figures helped me see the changes that were needed at NIDRR. It was clear that the grant process needed improvement and that the input from people with disabilities would be included.

I soon found the need to move some employees out and others in. In some cases, I hired temporary staff or borrowed them from other agencies. That's how I hired George Covington, Evan Kemp, Andrew Batavia (who would help write the ADA), and Glen White. (Glen was an intern one summer and is currently Director, Research and Training Center on Independent Living, University of Kansas). We held conferences for professionals with the goal of rallying support from them. In this group of professionals, three of us were disabled: Dick (who was Deaf), Joe Traub (who wore orthotic devices), and myself. But I soon found that we weren't united, that each of us had our own pet issues. Also included were people appointed by the president to represent the needs of the disabled, such as Lex Frieden and Justin Dart, Chair and Vice Chair of the National Council on Disability, respectively. (Eventually, Justin, son of the CEO of United Airlines, visited all fifty states twice in giving voice to the need for the ADA.)

Staff

Having staff as a presidential appointee was interesting. Within a few months of getting accustomed to my position, I found out that one of the secretaries always disappeared following lunch. Someone told me

Dr. Sylvia Walker, George Covington, Margy, and Dave in Quebec City

she had a job in a jewelry store in the afternoon. When I found out that she was at our office only half of the day, I put a stop to it.

On another occasion, a shoving match broke out between two women who worked for me. After I had discovered that they had lost all the applications for research when I first came aboard, I learned there was an unused safe between my office and the director's. That was my opportunity to give a clear directive that we were, from then on, going to place all the grant applications in that safe and that the person in charge of access to the safe and checking our proposals would be my assistant. For this position, I chose a woman who had been a bouncer at a bar in Rochester, Minnesota, who was also a personal assistance attendant whom I shall call B. She was dainty but tough, and I figured she'd keep people out! Only one person challenged her, someone who was upset that she had to go through B to get the grant applications. That challenger, whom I shall call C, was a raging bull. One day C went into the room right past B, grabbed a grant, and turned around and faced B, who demanded, "Put the grant down 'til you've signed it out!"

C wasn't going to do that. She pushed the grant at B, and B pushed her back. C was shocked to say the least and screamed, "Don't you touch me!!" Linda, who was my secretary and just four feet ten inches tall, came running into my office, shouting, "C and B are fighting!" I asked what happened, and she replied, "C took a grant without permission." C could hear the whole thing. I rolled out there to ask what was happening and proceeded to explain why C couldn't take the grant, explaining, "Look how much that lost cardiac application cost us in money, my time, and everybody else's time. So please don't do this again."

C then answered, "I'm not going to have a person with a BA pushing me around," to which I responded, "C, you only have a master's degree in rehab counseling." We never had another fight, and we never lost another grant.

In my view, the key to improving the science of projects funded by the Institute was to change the way grants were reviewed. We needed to tighten up the timeline and review process. When a proposal first arrived, we'd put a number on it. Seventy percent of the government employees who did the initial review worked in the same building. The results of that review went into a combined document but expressed the opinion of multiple people. I also always insisted that grants and review documents had to be received by the stated deadline to provide me sufficient time to write a critique.

Another day early on into my appointment, I accidentally heard a colleague telling someone in the hallway, "You don't need to read blank and blank and the other thing. This one is going to be funded; come to my office in an hour." So I had further evidence that the process needed to be changed.

On another note, it was well known that no federal employees could be in the study section of the review process. Legal experts at the Education Department had interpreted the law that said "no less than three" reviewers must review proposals to mean *only* three. So all the grants were seen by three people in this part of the grant process. I instead required that at least one person in the review be a person with disabilities or a parent of a person with a disability, a second person a

statistician or at least a methodologist, and a couple of content experts to round out the study section review group. Each one assigned to a primary review was to write an essay about the proposal's strengths and weaknesses. It was a difficult process, but the institute's mission was so broad that we could as a group do more grants. It wasn't new; it was a proven NIH model. But even though it wasn't new to me, it was new to staff at the Department of Education.

Another step I added to the grant process was that applicants would receive a pink sheet about what had happened with their application at the review, a summary of its strengths and weaknesses, a suggestion as to whether they should think about applying again, and if yes, what to do to improve their score.

There were no formal study section names until I got there. One bit of helpful advice I received came from two guys at the University of Kansas whose work I had read about. In 1985, Mike Jones and Gary Ulincy, who was CEO at Shepherd Rehabilitation Center in Atlanta, came to see me, and during our meeting we discussed the issue of the institute's mission statement being too broad. In my first formal attempt to rectify that, we formed study sections that could handle the various topics involved in our field and decided that we needed to arrange program staff to fit within those review sections. They said, "Dave, you need to really break away from the disease model and go to a more environmental, social, ecological one." That was similar to what Dr. Henry Betts had tried to tell me, but by then I was better able to understand what they were saying. Their idea was to divide access to life activities for people with disabilities into major areas, such as health, employment, transportation, and housing. (If I had stayed on for more than two years, those would have been the names of the study sections.)

Suggestions for Change

At one critical but casual meeting at Evan Kemp's apartment, several of us shared our experiences in being discriminated against. We discussed the terms that needed to be changed—for example, *disabled* rather than *handicapped*—and the changes needed in the funding to make the appropriate scientific research available. Each of us had our own set of "eyeglasses" that we were sure was the only set that worked. We knew there needed to be funding at the grass-roots level, such as to the National Amputee Coalition, and for self-help for the hard of hearing and prosthetics groups. And it was from that meeting that we came to understand the need for Innovative Grant Awards, which the director of NIDRR could award to appropriate applicants at $500,000 per year for two years for a total of a million dollars. The universities wouldn't be interested in such grants because they could only be renewed for one year, which would provide more opportunity for grass-roots organizations.

A short while later, Dick Verville, lobbyist for the Association of Academic Physiatrists and the American Congress of Physical Medicine and Rehabilitation, dropped by my office to comment, "How are things going? What do you think about this idea of advanced innovative training grants? I hear you're trying to make the NIDRR run like the NIH." He was asking me for my opinion, but as a government employee, I was not allowed to lobby. Not answering his question directly, I said, "The way the NIH works, the responses to a call for proposal have regular receipt dates of twelve months" and went on to describe the process in general. I could tell him how people managed to work within other systems such as the Department of Education, the Veterans Administration, or the Department of Health and Human Services—each organization's process leading to funding, with some having canyons (deep complications) and others having only crevices in their processes. So, I explained how the NIDRR process would bring people from across the country to read grant applications and the people asking for funding would be asked to defend their applications, sometimes on short notice, such as a day or two.

Another way of trying to get lobbyists to understand how things needed to be done was recognizing that they had friends who were also lobbyists and, contrary to my position of not being able to address our needs directly, they could talk to one another. I became aware that they'd say, "You know what the_____institute needs?" or "You know what Dave would like?" (Although of course it was not what Dave needed but what the institute needed.)

And then there were the people involved in the study sections of the grant review process like Louise McKnew, lawyer and champion for spinal cord injury (SCI) folks, who, because they were not federal employees, could say, "You're just lucky you've got Dave Gray over there; otherwise that place should be terminated." She approached Senator Edward Kennedy to describe other programs as "a mess." She was a fireball.

I was effectively Director of the NIDRR from October 1985 to September 1987. One of the things I did early on was establish a registry for people who had SCI. From that registry, we collected data, and it became evident that people at the top ten SCI centers were receiving care differently than those in less densely populated areas. We could compare outcomes of treatments in, let's say, Chicago, versus outcomes from Podunk City. But that's not science, that is just basic information gathering.

So how does one introduce better research for, say, traumatic brain injury (TBI)? We held conferences that included professionals, families, and people who had TBI disabilities, asking:

1. Of all the research in this area, what is missing?
2. Are there some areas that we can follow where there are similar treatments?
3. What do the scientists see as needed to inject the field with new treatment options?

It had taken me a year to learn how NIH operated. It took me six months as director to learn how the NIDRR operated: what the system did and where the "soft spots" were that could be improved and that one might have a shot at changing. I had to start using my political connections. I learned to be careful. It's a chess game.

Can Research Do a Better Job For Disabled?

David Gray, a quadriplegic, hopes to make a difference as he accepts a presidential appointment as the new director of the National Institute on Handicapped Research.

by Robert Gorski

He used to have an easy six minute drive to work and now it takes him an hour to commute into downtown Washington, D.C. He works in a block-long, hulking, depression-era building, planted among other buildings of like ancestry - the outline for a drab, professional life.

David Gray, unlike his commute, his work neighborhood, and his last name, is a colorful, lively person. He can be directive and authoritative without being acerbic. He can be bubbly without being shallow-headed. Indeed, he is a very heady guy, with a solid background in both pure and applied research and in disability services.

Gray, as the new director of the National Institute on Handicapped Research (NIHR), a presidential appointee, is now one of the more highly placed disabled persons in the executive branch of government.

For five years David was a health scientist administrator at the National Institute of Health (NIH) and helped influence and implement Institute policy for child health and human development research. Despite the similarity in the names of his former and present work places, the two are vastly different. NIH is the nerve and funding center for federal involvement in billions of dollars worth of scientific research.

The NIHR, where Gray now works, is a relatively small unit of the executive branch - 28 staff and a $39 million budget. It is part of a constellation of disability-related agencies all housed in the U.S. Department of Education. The mission of the NIHR is to: oversee funding programs in rehabilitation training, rehabilitation engineering, and other disability-related research areas. The payoff is ultimately to have

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Robert Gorski is editor of *Disabled USA*, a publication of the President's Committee on Employment of the Handicapped.

a positive impact, through research findings, new equipment, and new information on the lives of disabled people.

Doubtless, an honorable mission and goal. But why did Gray leave the professional and personal advantages of NIH for the NIHR's more focused mission and for a less favorable impact on his personal life?

According to Gray, it took a good deal of thought and consultation with his family. What seems to have tipped the decision was that the position at the NIHR offered a chance to give directly and in an important way to the disabled community.

Describing what was involved in the decision, Gray comments, "To go to this job targeted just at disability meant letting go of my academically-oriented professional life. But I know that as a disabled person, I have benefited from previous rehabilitation research, and I feel I have much to contribute to these efforts today.

"I have a lot of knowledge about how to do research . . . research is in my blood. In a way, the directorship of the NIHR is a gold mine of an opportunity."

Another reason compelling Gray to take the job at the NIHR is connected with his perspective on social change and disability. "In general, the disabled community has been dissatisfied with its members not being decision-makers in areas that are disability-related. But there is real change having disabled individuals working in top positions.

Gray has been involved in the everyday world of disability services, disabled consumerism, and the independent living movement beyond his own experiences as a severely disabled person since 1976.

For example, in 1979, he wrote a successful start-up grant application for the center for independent living in Rochester, Minn. Then he served on its board for two years.

Between 1975 and 1981, Gray was a key administrator at the state hos-

David Gray and Richard Leclair, director of research at the NIHR, discuss a project. (photo by Al Whitley)

pital in Rochester, first as an able-bodied person, then as a wheelchair user. Gray headed the hospital's mental retardation division, and prides himself for "switching the program from a dependency orientation to an independency model.

"We set up a behavioral laboratory aimed at getting patients back into the community. Out of 123 people placed in the community, only two returned to the state hospital," says Gray.

So what is this highly educated (master's studies in chemistry and psychology, doctoral work in psychology and genetics) and experienced individual going to do as head of an Institute on Handicapped Research in an era of Gramm-Rudman budget cuts?

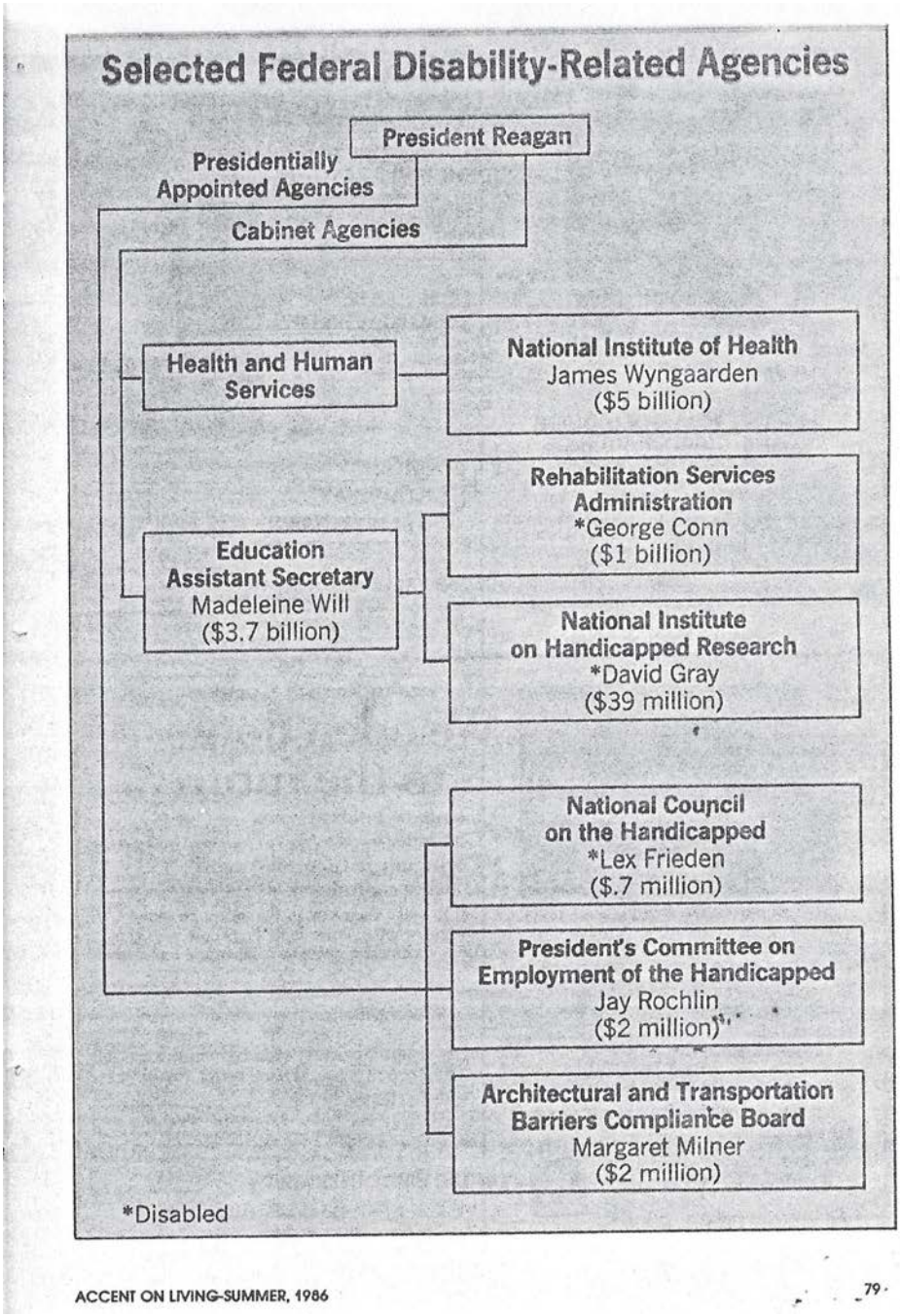
Survive on his smarts, his wit, and his wittiness and to: encourage disabled people with research backgrounds to work with the NIHR ("send me your curriculum vitaes") as employees, guest workers on loan from other organizations, and grant applicants; increase the visibility and influence of a federal "interagency" committee on disability research; and develop the research review process at the National Institute on Handicapped Research.

Changes in NIHR's review process, Gray hopes, will greatly stimulate development of the rehabilitation research field. He wants to change the process of peer review. Hopefully, more professionals from the research and scientific communities would be drawn into the mission of the NIHR.

Grant applicants, moreover, would receive much more feedback on applications. In addition, there would be better continuity in the advice and criticism the NIHR would be giving to the research community.

As Gray is fond of saying, "The review process drives good science."

Some observers have faulted the NIHR in past years for not getting more from the millions awarded to rehabilitation engineering centers, research and training operations, fellowship winners, information collection and dissemination projects, and independent researchers. No one should expect complete resolution of existing problems. But Gray is making a long commute to an uninspiring building because he wants observers to have less to criticize and more to applaud in the future.



ACCENT ON LIVING-SUMMER, 1986 79

Dave Gray with Senator Dave Durenberger

As an example, early on as director, someone saying he was representing Senator Durenberger showed up at my office. My secretary, Linda said, "Dr. Gray, X is here from Senator Durenberger's office and would like to see you." I responded, "Okay, let's make an appointment." Linda said, "Now!" I had no time for preparation. As I was soon to learn, many of the representatives who came to my office were recent grads of elite colleges and universities and often demanded that I do something posthaste. That time, I caved and allowed the meeting. After the meeting, however, I had a feeling that the message I'd received wasn't right and went over to visit the senator. Sure enough, it wasn't what the senator wanted. So I got wise to that ploy and learned to buy myself time and get the message right.

When the aides understood that I understood how those messages worked, they went to their next resort and put whatever they wanted right into the pending legislation. That's when I found I was cooked. Oftentimes, these decisions related to the location of where the money was to be spent. In another instance, someone wanted to have an

engineering center within their jurisdiction. When the "representative" made his appeal, I had said, "No! If it's going to be through NIDRR, we need to make this an open, fair, and competitive process." Sure enough, when the proposed legislation was announced in the Federal Register, the wording included that the engineering center was to be within thirty miles of the desired location. Unfortunately, there were no appropriate universities that could create such an engineering center in that specified area.

I saw and experienced inappropriate power grabbing and even some abuse. But in the end, I was able to get some things established that moved the NIDRR from the medical model to a more social and environmental model by changing the type of science that was funded to a more epidemiological type of science—meaning it was not exactly a medical model in the sense of looking at a single cause.

In addition, we looked at treatments instead of basic research. For example, I became aware that the Center of Engineering had spent twelve years looking at a foot pedal that never worked. In NIH terms, that's nothing. They consider some projects successful if you get any data. But as a trained researcher, I knew that we had other options within the realm of science. In more practical terms, researchers could be held to a standard of, for example, having a payoff in five years. I knew that at the NIH $30 to $40 billion would go into basic research and less than $50 million into short-term research, and from my perspective, that ratio was really out of whack. Problem-based research is what the U.S. Army, Navy, and Air Force and the British and Germans all did during WWII. When there is a war going one, research with no payoff in ten years is worthless. The results should be within five years.

Now as I look back, I see the changes in which I was involved included changes in the models of what are acceptable grant funding guidelines and processes, changes in the scientific research, and changes in the words used to describe disability and rehabilitation.

I also managed to get people talking to one another who had never done that before. An example of that was from my days at NIH, when at the Wingspread Learning Disability Conference in Wisconsin, two

guys with opposing points of view bumped chests.The end result of that argument was a good one, however: they eventually were able to hear each other's position that some types of treatments worked best for some children and others worked best for other types ofkids.

Presidential Appointee

In addition to the work at hand, I had times of great fun and excitement during my appointment. Six or eight times I was invited to an event at the White House. Since I was a presidential appointee representing people who were still sometimes referred to as handicapped, I was several times invited to dinners. One time while seated at the head table with President and Mrs. Reagan in the middle, the person on my right was from the Foundation of Paralyzed Veterans of America. Seated next to Mrs. Reagan was a man with a spinal cord injury and his wife. I was talking to them while trying to listen to the President and Mrs. Reagan's conversations. Mrs. Reagan asked the wife, "How would you explain how your husband made his way through all the struggles, while most people probably don't?" When the lady responded, " I don't really know," Mrs. Reagan suddenly turned to me saying, "Dr. Gray, you're a psychologist, aren't you?" (I had no idea she even knew I was at the table.) I almost choked on my meat. Mrs. Reagan went on, "How would you explain it?" I said, "We all have different genes and backgrounds, but one thing I have noticed that we all have in common is that people who have made it have shown self-motivation through their whole life. And what I have also noticed is the type of support they have. If they have a wife who is not protective but very attentive, they're more likely to succeed." I think Mrs. Reagan winked at me because that's exactly what she wanted me to say.

Another time, I was trying to get things straightened up in my office while trying to get a decent review system started when I received a call from the White House from a guy who said, "Dr. Gray, are you the one in charge of that handicapped institute? The President wants you to

Mayo Clinic

Rochester, Minnesota 55905 Telephone 507 284-2511

Thoralf M. Sundt, Jr., M.D.
Department of Neurologic Surgery

July 14, 1986

David B. Gray, Ph.D.
National Institute of
Handicapped Research
330 C Street, S.W.
Washington, D.C. 20202

Dear Doctor Gray:

I was pleased to hear from Doctor Chao that you are busy and active in your very responsible position in Washington. I am often amazed at the incredible courage that you people with spinal cord injuries have mustered. I have been ill recently (multiple myeloma). This has been an illness with which I have been able to face more easily I believe than were I to have had an injury such as yours. In any event, the example of you and others has directed me through these difficult months.

Sincerely yours,

Thoralf M. Sundt, Jr., M.D.

TMS:lf

represent him at Handicapped Awareness Month." At the time, I was in the midst of changing the name to NIDRR and thought, "Come on, let's get the words right!" (But I didn't say that.) Of all the things I had to do and wanted to do, that was *not* on my list. So I said, "Would you be interested in someone else doing this?" The reply was, "No, the White House wants *you*." I knew that it was actually a senator's aide who had a list of people to line up and wanted to find someone quickly, so I didn't pursue the negatives of my attending. But I went home storming.

It all turned out well. I was told to go to the Hyatt Regency and that the White House representative for the event would meet me there. "What's the person's name?" I inquired, to which the reply came, "Doreen."

Doreen

So I drove my van—and I'm driving from a wheelchair—to the hotel's front door and rolled down the window. The doorman asked if he could park my car. "I'm not here to park. I'm here to pick up someone named Doreen," I said. The doorman told me, "Oh yeah. She's been waiting for you." I was about ten minutes late as usual, and as I said I wasn't very excited to be there. Then out came this outrageously beautiful woman and I thought, "Oh, looks like this might be a good day!" She seated herself beside me in the front bucket seat. I had made a plot earlier that day to have my guest ride to the White House in my backup wheelchair, which was also in my van. With sufficient time to waste until the event, we found a parking place at the Hyatt on the street where we could disembark and roll over to the White House. She said, "We've got an hour. Why don't we roll around the city?"

In front of the Justice Department, workers were repairing a sidewalk. She was in front of me in my super-engine Everest & Jennings wheelchair that went twelve miles an hour. She was racing me and would glance back, laughing at my going so slow. Unfortunately, during one of those turnarounds, her wheelchair hit a crack where the cement was in bad repair. The brake on the right front wheel jammed, sending

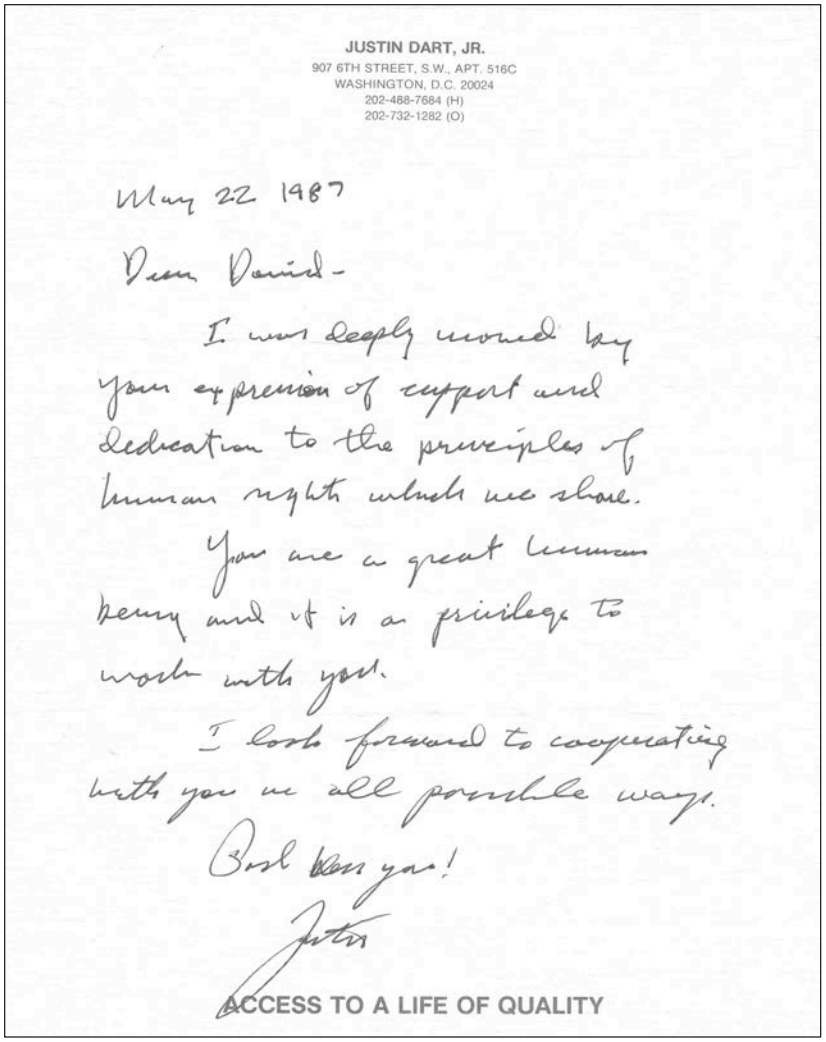
her flying, and she scraped her hands and knees. Picking herself up, she explained, "You know, I've danced all over the world—Vietnam and many other places. I'll tell you that driving this wheelchair is tougher than that." Well, I had to go get my van and take the broken wheelchair back to the hotel. Then I decided, "Let's drive to the White House." We drove there and parked nearby.

As Doreen and I began walking and rolling along to the entrance of the White House, someone said, "Do you want to see the residential quarters?" When I wondered how I was going to get there, the staff said I could ride in the Roosevelt elevator. When Roosevelt rode it, he pulled himself up by arm power, but they have long since motorized it.

We were still fifteen minutes early. Standing guard at the door in dress blues was a big Marine, who said in a deep voice, "May I have your name?" As she answered, "Doreen," he looked at her and sort of turned his head, like he seemed to know her. I said, "Yup, you're right! She's one of the original Musketeers." He replied, "Really?" Someone asked, "Come on, sing for us." So Doreen Tracey began singing, and before she finished, about twenty of the White House staff appeared at the front door to join and sing along. That was one of the coolest moments during my time as a presidential appointee.

After Doreen had finished singing, we were to proceed to the south lawn. I took the modern elevator down where we were to await the president's return in his helicopter. Because he was late and it was getting hot, the White House nurse said to me, "Dr. Gray, you can come inside." I don't do well in heat and was glad to get into the basement room under the Oval Office, where a long line of people was also waiting for the helicopter to land. Soon President and Mrs. Reagan disembarked from the helicopter and shook hands with dignitaries as they approached the White House.

White House staff let out the Reagans' dog, who jumped into the president's arms. In his gentlemanly way, he was urging people to move along. I was hoping he would pay attention to me. He was just about to come through the door with Nancy two steps behind him when Doreen said, "Hey, Nancy! It's me, Doreen." Mrs. Reagan stopped to



JUSTIN DART, JR.
907 6TH STREET, S.W., APT. 516C
WASHINGTON, D.C. 20024
202-488-7684 (H)
202-732-1282 (O)

May 22 1987

Dear David -

I was deeply moved by your expression of support and dedication to the principles of human rights which we share.

You are a great human being and it is a privilege to work with you.

I look forward to cooperating with you in all possible ways.

God bless you!

Justin

ACCESS TO A LIFE OF QUALITY

talk with her for about thirty seconds or so. (Doreen is a good friend of the Reagans' daughter.) The president made a little noise to keep his wife moving along and glanced at me, then asked Doreen, "Why don't you come to see us in California?" Mrs. Reagan took the hint. That's how close I was to the president. He had a presence about him as he walked, straight up with a twinkle in his eye. He told a joke along the pathway with a big smile, and all of a sudden the line convulsed in laughter. That was my most memorable moment with the president.

The couple of times Margy came along when I had to go through that "tough" duty at White House receptions, we had some fun—even

Senator Durenberger and Dr. Duane Alexander

took some of the bathroom paper towels printed with the White House insignia. Since on those occasions my briefcase was on my lap, we'd slip them in there. One time when there was leftover ham and beef roast that staff assured us would go to waste, they allowed me to wrap a bit to put in my briefcase.

Other things came up that are par for the course as a presidential appointee. For example, on their invitation (which it had to be), I visited some of the dignitaries "on the Hill," including Senator David Durenberger, Senator Robert Dole, Senator Edward "Ted" Kennedy, Senator Lowell Weicker, and Representative Steny Hoyer of Maryland.

At one point, getting the appropriate NIDRR information into the Federal Registry was becoming critical because all monies had to be awarded before the end of the budget year, September 30. By April I began to panic about getting the grant announcement out the door.

So I was facing the wrath of fifty rehabilitation centers across the country. I couldn't do that to my colleagues and respected people in the field. I felt that I had no choice but to get out.

Justin Dart, one of the fathers of disability rights in the United States, was also leaving due to political pressure. That was the final blow. I knew I had to leave.

Justin and I would often go up to the top of the Hubert Humphrey Building for a late lunch to talk about what was going on and the inappropriate behavior we were observing. My boss could not seem to understand the difficulties experienced in the real world by people who were blind, deaf, paralyzed, or had muscular dystrophy.

In early August, I sent a letter to Dr. Duane Alexander of NIH concerning my ethical dilemma. His response was, "Good, when can you come back?" When I replied, "September first," he said, "Can't you make it any earlier? I look forward to having you back. We miss you."

So that was my career as a presidential appointee. When I returned to the NIH, I went back to work for one of the NIH branches, Human Learning and Behavior, Mental Retardation, and Developmental Disabilities.

After stepping down from NIDRR, the first letter I received was from Senator Inouye of Hawaii thanking me for what I had accomplished in pushing forward a disability agenda. Then I received a letter from his legislative administrator explaining that the senator was upset that someone was trying to defund the Pacific Institute of Rehabilitation Medicine. I was forced to go to Hawaii to see firsthand what was happening. I paid for Margy and the kids to accompany me. It was so fulfilling to see them swimming and enjoying the island. I visited the Pacific Institute of Rehabilitation Medicine, which later managed to compete for and be refunded after five years without special intervention by Senator Inouye—the Federal Registry was then open for anyone to apply.

While we were there, we met up with my fraternity brother, John Ishikawa, who entertained us at a fancy country club and rented a van that gave us a lovely tour around the island.

Chapter Ten

Back to the NIH

NICHD

After having been in charge, there was a period of adjustment when I returned to the NIH, but by then I knew the quality of their structure and process. There were still flaws, but small compared to what I had seen and experienced.

One of the topics that Travis Thompson, Duane Alexander, and I had discussed was our interest in destructive behavior by people who were developmentally disabled. For example, we knew of a sixty-year-old woman with two developmentally disabled daughters who exhibited such destructive behavior that in addition to continually hitting themselves, one of the kids had knocked out the eyes of the other. The mother had made a movie of this in which she said that the girls had done this since age two. She and her husband had tried both restraints and medications, but nothing worked. So the woman was desperate to know what treatments were available. We spent a year of fact-gathering by talking to people in the field and reviewing the literature. Then we came up with the strategy of holding a conference on this topic. We put experts on a panel and invited the parents. Dr. Thompson and I put the findings from our fact-gathering into a book that featured Contingent Electrical Shock Therapy (CES). One of the treatments that had been found to work in severe cases was to have the subjects wear helmets with a device that would send a shock down their thigh whenever the subjects tried to hit their own head. On most occasions, the initial time they received the shock, they look bewildered and then tried it again.

Quite quickly they seemed to understand, because the next time they raised their hands up to their helmet, they didn't actually hit it. Pretty soon, they quit going to their heads to hit themselves. In some cases, caregivers were able to remove the helmet and take off the shock straps. It was shown in most cases to be effective, and lots of parents were relieved because instead of their kids becoming bloodied, they were able to be in the presence of others.

Some people called this treatment cruel or torture. "You should try to give them rewards for not doing it," some insisted. People who were providing treatment had tried that, but not with severe cases.

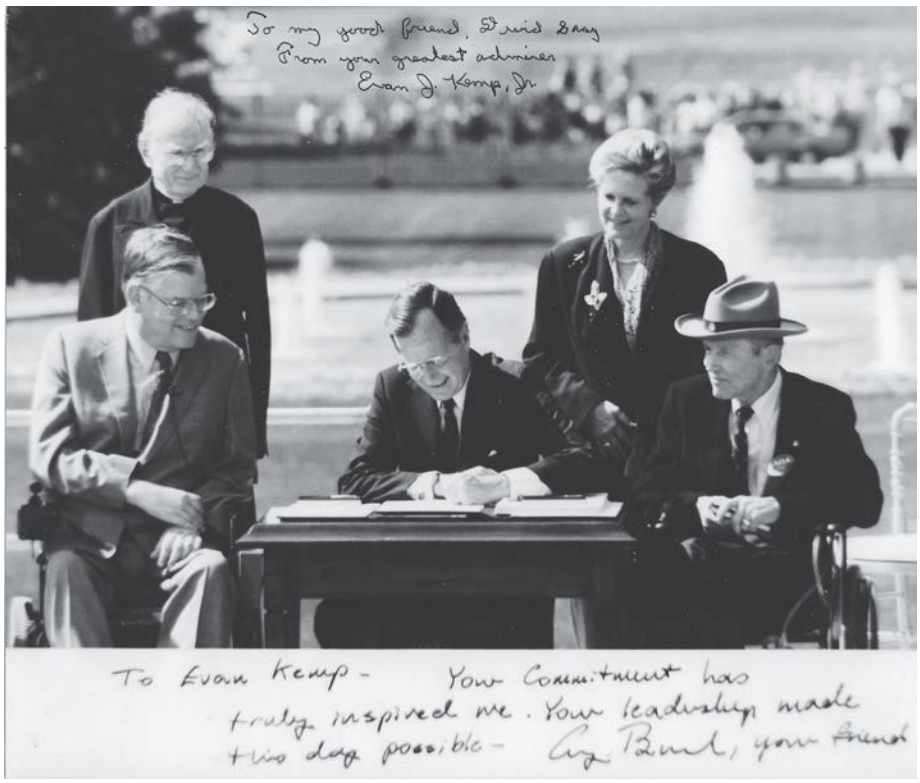
As a result of our work and the conference, the participants wound up recommending giving sequenced rewards and using CES after the other methods were shown to not be effective.

When a scientist has a treatment with enough science behind it, one holds a consensus conference at which scientists advocate for the approach they have found effective. They often disagree.

In this instance, Dr. Cook, who had also advised the Kennedys, got up to the stage. He named twenty advances he'd established. It was wonderful to be part of a democratic forum. That was my first year back, and it was exciting to say the least.

In the meantime, I continued my friendships with many disability advocates, such as Justin Dart, Evan Kemp, Lex Frieden, Judy Heumann, Ed Martin, and Max Starkloff, who'd spent many years on the ADA. They got Senator Edward "Ted" Kennedy involved. The first version of the ADA was so hard to implement, I didn't think anyone but a lawyer thought it would go anywhere.

The disability rights advocates weren't interested in making health care a civil right—that would be as hard as moving a mountain and might have mired the ADA down. Pat Wright was a persistent advocate for health care. The best I could do in support of the ADA cause was say that we needed to have a rehabilitation center in the NIH.



Social Engagements

When President George H. W. Bush was inaugurated on January 20, 1989, Margy and I were invited to attend. We had decided to take the Metro and boarded in Bethesda, where the only other couple on that train was Dr. Wyngaarden and his wife. I told Margy, "Watch, he won't remember me." So as they boarded I was completely surprised when he said to me, "Dr. Gray, I want you to meet my wife." We had a gentlemanly conversation about the rehab center issue and tried to look at it squarely. In the end, he counseled me with, "You'll never get enough support from the medical community if you leave the word *medical* out of the title." As I was to find out, he was totally right.

Mrs. Bush

requests the pleasure of your company

at a tea

honoring the Tenth Anniversary of the

Foundation for Children with Learning Disabilities

Tuesday, January 13, 1987

The Vice President's House

3:30 p.m.

Barbara Bush with Dr. David B. Gray

Environmental and Social Factors

To produce really good research on medical problems, it's a little-known fact that some of the funding needs to be dedicated to environmental and social factors—it's not all done in a test tube. Some emphasis in disability and rehabilitation research involves issues such as aging and teaching parents how to be parents, which are not basic science but more environmental.

Dick Merville and Peter Vietze from the Amputee Coalition wanted a medical rehab center to look at prostheses and orthodics. Other groups, such as professional OTs, PTs, and psychologists and the prosthetics and orthodics industries, supported it. Unfortunately, the Independent Living Centers, because they didn't like hospitals, didn't back those ideas.

Dr. Wyngaarden, Director of NIH, called me to his office to tell me, "I understand that you know a lot about the efforts to get a new rehabilitation center. We don't want any more centers and institutes. We already have too many. What justification can there be?" I had done an analysis of all the research on rehabilitation at all the different branches of NIH and almost none overlapped. So it was pretty clear that NIH was funding something different in each of the institutes. But he listened to me and understood. He said he'd call a meeting of the Directors' Advisory Committee and promised to "get to the bottom of this."

Then he looked up from the papers he was reading while I was talking and said, "You're from Grand Rapids?" I replied in the affirmative. He went on, "Is your dad Fred Gray? He and I trained together in 1948." I was thinking, my dad has been dead for twenty years and I still can't get out from his shadow! But the tone of the meeting changed after that, in a good way.

Dr. Wyngaarden and Dr. Duane Alexander (of NICHD), both pediatricians, were also acquainted. Eventually, Dr. Wyngaarden decided to get serious about the possible need for a rehabilitation institute for NIH. At the Directors' Advisory Committee, many key people were involved—all the regular members plus Dr. Henry Betts and the former Assistant Secretary of Health and Human Services (HHS). I was also

invited. Around 1989–1990, we were seated in a room around a huge table where I was in the center of one side with Dr. Henry Betts on my left and the Assistant Secretary of Public Health on my right. There was a discussion about whether the institute should be a separate entity and, if so, where it should be located.

Dr. Goldstein, Director of the Neurology Institute, gave his opinion. "We have no need for it. NIH is constructed so that each of the institutes has rehab at the top of our pyramids. There's no need for a separate entity." The rehab people argued that having separate institutes created silos and meant that each pillar of medicine developed their own sub-specialists who don't talk to each other. The physiatrists argued that the rehabilitation sections of each institute had been misused. Unfortunately, because the physiatrists' field (rehabilitation) was not as highly esteemed as other medical fields, they didn't have sufficient resources and their work to get the person affected by disability to return to employment, community, and family was dissipated.

Dr. Goldstein stood up to make the statement about the top of the pyramid; then Dr. Betts stood up to argue his points, and the assistant secretary of HHS then stood up. They were all talking above my head, both in reality and figuratively. Finally Dr. Betts said, "I'm sick of your snobbery and prejudice against doctors of physical medicine. The bottom line is you can't serve all a person's needs by going to one specialty because the staff aren't all trained for other issues." That shut down the others' arguments, which were something to the effect that if each institute had it all, then they had nothing special to gain from adding a rehabilitation institute. Someone then said, "Now guys, settle down. Let's get this resolved."

The director, Dr. Wyngaarden, then took over. "I think we need to get more facts. I will assign someone." Six months before this meeting, 101 people assembled in Hunt Valley, Maryland, and discussed what needed to be done about rehab from various fields and had each brought their own study design. They had reported to sub-groups and then assembled into a plenary session identifying the strengths, weaknesses, and cost estimates. The information was to be published in a book, which I

had worked tirelessly to get out the door and Dr. Duane Alexander had signed off on. So now Dr. Wyngaarden was asking one of the team to create a summary of the book's results and present its conclusions.

Those facts were summarized as pointing to three options:

- A free-standing institute
- A part of a center (i.e., child health with an additional branch)
- A free-standing center.

They took a vote and it became a numbers contest. Although the free-standing center came within one vote of passing, the winner was to become a part of a center.

The option I had wanted was to combine all the rehabilitation research on the top of the triangles for each of the institutes so we could learn from each other what was needed.

A piece of legislation for the creation of a National Center on Medical Rehabilitation Research (NCMRR) went to the president's desk. Evan telephoned me with a question: "That bill you're working on is on the president's desk, and he wants to know if this is a good thing? Because there's someone in the Department of Education insisting that they already have a rehab institute." I said, "Evan, you worked down there for six months or a year, what do you think?" I never heard exactly what he told the president that I had said, but the president signed the bill on November 17, 1990, and the NCMRR was established in 1991.

National Center on Medical Rehabilitation Research

NIH got the word about NCMRR and that it had to be attached to an existing institute and was asked which they would select. It wound up under Duane Alexander, who relied on me a lot. So I was appointed Acting Deputy Director of NCMRR, NICHD, NIH. The funding was unusual; it was a line item. We didn't get the $50 or $60 million that the National Institutes on Aging or the National Institutes on Nursing received upon their initiation but instead got $9 million, a pittance. This was at the end of February, 1991. We operationally went into effect

in March and had to immediately hold a meeting of the new Advisory Board on Medical Rehabilitation Research.

One of the primary assignments of that board was to write a research plan. The "powers that be" still didn't trust that there was any decent research to be done in rehabilitation and weren't convinced that it required the high level of research sophistication that the more established medical fields needed to do. I hired Dr. Louis Quatrano, an outstanding grant reviewer, psychologist, and program manager, to develop a research plan. We had money to give before October 1, the end of the fiscal year. I expressed my concerns to Duane, who said, "No problem. I'll have Larry Johnston work with you on priorities, and you'll need Don Clark, the head of Office Grants and Contracts." Outside of Duane, those were the two key people in the whole institute to go to if one wanted to get something going.

The legislation required that we have an advisory committee once again. People weren't happy to do this because they already had what's called a "council"—people to do the second review. These two committees (or councils) met at the same time of year. Larry not only ran the review council, but he got assigned to run the advisory board. However, he didn't know people in the rehabilitation field and came down to my office, where we did what I had fought all along NOT to have happen at the Department of Education: we started making suggestions for the committee without an objective review. Duane, who smelled a rat, said, "You guys have to come up with a lot of names. Then Susan Streufert, Ralph Nitkin, and others who are knowledgeable will review that list." Larry commented, "It's going to be the most boring day of my life." I responded, "Oh, I can think of something worse."

So the list was assembled and included people from various disciplines as well as people with disabilities. I was assigned to suggest people with disabilities. Larry, Susan, and I went over to Building 31 in the heart of the NIH campus to Duane's office, where we were seated at an enormous table. Each of us had lists of people we wanted involved. Because in this circumstance, every member has to vote, I suggested two rehab engineers. Carolyn Baum's name came up, along with another occupa-

AMERICAN ACADEMY OF PHYSICAL MEDICINE AND REHABILITATIO

March 23, 1988

David B. Gray, Ph.D.
Human Learning Behavior Branch
Center for Research for Mothers and Children
National Institute of Child Health
and Human Development
National Institutes of Health
Bethesda, MD 20892

Dear Dave:

Thank you very much for your letter after our meeting with Senator Weicker. We all appreciated your stimulating contribution. It added substantially to our meeting. I also enjoyed that you were able to meet some of the leaders in our field.

In the meantime, we have been pursuing the issue of establishing a center for medical rehabilitation research at NIH and shall be continuing to do so.

I appreciate very much your enclosing the materials describing the general research centers. I also appreciate your reference relating to Dr. Stanley Slater. I am passing these materials on to Justus Lehmann as chairperson of our Joint Research Committee.

Many thanks for all your efforts and in joining us to bring better medical rehabilitation through research to the rapidly increasingly millions of Americans who are disabled.

Warm personal regards.

Cordially,

Joachim L. Opitz, M.D.
President

JLO:rkw

cc: R. Materson, M.D.
B. de Lateur, M.D.
R. Verville, L.L.B.
J. Lehmann, M.D.

tional therapist. Carolyn won the vote, and that was how I first became acquainted with her. Also chosen were Ted Cole and his wife, Peter Axelson, Judy Heumann, Lex Frieden, John Baucker, myself, and lots of others, including a female urologist. We met as a group three times. They'd send their written recommendations to me for editing and I'd send the results on to Duane. That's about as hard as I *ever* worked on a research plan. The model, a diagram with a star in the center (representing a disabled person), took almost a year to complete, but represents a meeting of the minds. And we presented it to Congress.

Next we had to hold national meetings to gain acceptance. We traveled to Seattle, where twenty people showed up, and to Texas, where maybe thirty participated, and to the NIH auditorium in D.C., where 150 appeared. Our work was gathering momentum, we were hiring staff, and we realized it was time to spend some of the research money. Duane, Larry, and board chairman Ted Cole made recommendations for how to spend it. We elected to fund T-32 training grants that would be awarded to pre-doctorate and post-doctorate fellows. That was a big hit, because as Bill Raugh explained, receiving such awards from NIH "knighted" them in their fields.

We also had a couple of initiatives in the form of "requests for application" where the Institute announces requests for research in the area of bowel/bladder care, sexuality, and prosthethics in the *NIH Guide to Contracts*.

I was so proud of those initiatives. Now the Center was launched, and we had announced funding for targeted areas that came from board member input. Moreover, it fit the plan that had been developed from the personal experiences of the people on the board.

The next excitement was around the very real competition for the position of Director of NCMRR. I probably made a mistake by submitting my name, for the person who received the appointment was Marcus Fuhrer, a psychologist. Needless to say, I was disappointed.

Carolyn Baum was still on the board of NCMRR and encouraged me to consider a job at Washington University in St. Louis, Missouri. Finally, after two and a half years of hearing her repeat her offer, Margy

The Institute for Rehabilitation and Research (TIRR)

1333 Moursund, Houston, Texas 77030-3405
In the Texas Medical Center
Telephone (713) 799-5000, 797-5790 (TDD)
Fax (713) 799-7095

April 15, 1993

David Gray, PhD
National Institutes of Health
6120 Executive Boulevard
EPS, Room 450 West
Rockville, Maryland 20852

Dear Dave:

Enclosed is a personal token of my sincere appreciation for your support during my tenure as Chairman of the Advisory Board of the National Center for Medical Rehabilitation Research. I believe we have established a sound foundation for the Center. We have validated our field of knowledge and practice, and we have provided direction for its future growth and development.

TOGETHER, WE HAVE SOARED AS EAGLES DO.

With my respect and gratitude,

Lex Frieden
Senior Vice President, TIRR
Chairman, Advisory Board, NCMRR

LF:rf

Enclosure

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE
AT WASHINGTON UNIVERSITY MEDICAL CENTER

PROGRAM IN
OCCUPATIONAL TI

June 11, 1992

Dwayne Alexander, Ph.D., Director
National Institute of Child Health and Human Development
Executive Plaza South, Room 450W
6120 Executive Boulevard
Rockville, Maryland 20852

Dear Dr. Alexander:

I'm writing to offer my support for Dr. David Gray's candidacy for the position of Director of the National Center Medical Rehabilitation Research. I have very much enjoyed Dr. Gray's leadership. Dr. Gray has developed the respect of many different disciplines in his tenure.

I have been impressed with the volume and quality of work conducted this year. In fact, Dr. Gray was able to get many of us involved and he sustained our involvement through the course of the task.

I have noted that all of the directors at NIH that I have met have been physicians and I think that this is very important when there is a medical specialty that is uniquely related to that Institute. The National Center for Medical Rehabilitation Research represents many disciplines, and if it is possible that a person other than a physician could hold this post, I support that Dr. Gray be that person. Should it not be possible, I would hope that there would be a vital and meaningful role for Dr. Gray because I see him as a tremendous facilitator and someone who will make the research plan come alive.

I have really enjoyed the opportunity to work with the Center. I look forward to continuing to work with you and the Center's leadership over the next phase of development.

Sincerely,

Carolyn Baum, MA, OTR, FAOTA
Elias Michael Director and Assistant Professor
Occupational Therapy and Neurology

CB/dj
bc: Dr. David Gray

Box 8066
4567 Scott Avenue
St. Louis, Missouri 63110
(314) 362-6911

and I took a road trip to the Midwest and visited St. Louis. Itlooked nice! We did want to leave D.C. at some point.

Six months later, we agreed to visit again, and this time we were more serious. The university was excellent, with lots of resources and smart students. I knew a couple of the faculty from the grants process, and they were excellent practitioners in their fields. Two months after that, we visited again and I was sold. Margy looked for and finally found a home she really liked.

Europe

In the fall of 1994, we traveled to Europe, where I had been appointed to the World Health Organization Task Force on the new International Classification of Functioning, Health, and Disabilities.

Margy arranged to accompany me, and we spent a few days visiting other sites following the WHO meetings. We rented a car, which she drove to historic and scenic sites, and stayed in Hyatt Hotels she had reserved in Brussels and Cologne. First we toured Verbugen, an old walled city in Belgium known for its lace. We also drove to the site of the Battle of Waterloo, where Napoleon met his defeat, and got a bit lost, ending up near a nuclear plant. But we eventually made it back to the hotel.

Then we drove to Aachen, Germany, where during my college days I had lived with a family as an international student. We were reunited with my host mother, Frau Malma. At first she didn't recognize me, but went back inside her house, where she found a photo and pointed to me. Then she started to cry. Soon her children and grandchildren came out of the house. It was a wonderful reunion. We then headed to the Rhine River, turned east, and took the autobahn to Frankfurt and then back to Cologne and finally Amsterdam. On that trip, we decided we'd had enough of D.C. and high-pressure jobs.

Chapter Eleven

Washington University in St. Louis

College Professor

We returned to St. Louis and stayed in a hotel so Margy could show me the house she'd found on our previous visit. It was two stories and painted an ugly battleship gray. I wasn't impressed. When we got inside, there was an elevator. I just don't like elevators and told her this was no place I wanted to live. She was clearly very upset, so I said, "No, I'm just kidding." We went ahead and she drove such a bargain, I felt sorry for the owners. They made a mistake by saying, "But your husband needs an elevator, that's what makes this house so valuable." Margy came back with, "You haven't been able to sell it for a year. What's the reason? It has an elevator." They stopped bargaining, we got the house, and we've now lived here for nineteen years.

After accepting the teaching job at Washington University School of Medicine, I knew I wanted my research focus to be participation of people with disabilities in the environment. When I first arrived, I applied for some grants without success and only later learned that it's not unusual to not be awarded grants right away when people move to a new institution or organization. One needs to make contacts and discover how the system works. Also, it was a new experience for me to go from awarding grants to applying for funding. With the assistance of many collaborators, I wrote two grant applications that were awarded from the Centers of Disease Control and Prevention. These two grants helped develop reliable and valid measures of participation by persons with disabilities and the person–environment interaction.

Margy and Dave's house in University City

Research

In my first year at Washington University, I was approached by Susy Stark to serve on her dissertation committee at the University of Missouri in Environment and Behavior Science. She developed a nice approach to measuring the environment, which fit right into my concept of Darwinian selection of species and subspecies due to environmental variables. While she completed her dissertation, she joined my lab and worked on a grant from the Centers for Disease Control and Prevention. Combining our work, we created both a measure of participation and a measure of environmental barriers and facilitators. With these measures as our basis, we started a research program to see what it would take to encourage people with disabilities to exercise.

Then, with these scientific measures developed, I was ready to get going on community-based research. It is very fortunate that St. Louis has such a strong Independent Living Center, Paraquad, thanks to Max Starkloff. When we arrived in St. Louis, I was invited to serve on the Paraquad Board of Directors. Max Starkloff, the CEO of Paraquad, and I would discuss the possibility of conducting community-based research. Together, Max and I wrote a grant to the National Institute on Disability and Rehabilitation Research for "Assistive Technology in the Community." The purpose of the grant was to get people with mobility difficulties out of rehab and into the community by expanding the range of assistive technology services. By the time the grant was awarded, Max Starkloff had moved on to create the Starkloff Disability Institute and Bob Funk had become the CEO of Paraquad. Through this grant, we started the Enabling Mobility Center (EMC), which is a community-based research lab. Occupational therapists and researchers from Washington University and disability advocates and independent living specialists from Paraquad use EMC to collaborate on research and service.

Meanwhile, in July 1997, Dr. Carolyn Baum strolled into my office to tell me, "I see the future, and you are going to work in the area of assistive technology." Although I had edited a couple of chapters of a

book on the topic, I had never taught a course on Assistive Technology. She went on to say, "So I want you to teach the Introduction to Assistive Technology course." The first year, I stayed a chapter ahead of my students. It was very tough.

From 1993 to 1999, I volunteered to be the U.S. Representative for the World Health Organization, where we continued to work on the Revision for International Classification for people with disabilities.

Over the past ten years, I collaborated with Glen White from the University of Kansas. One project Glen and I worked on together was mapping community sites for accessible bathrooms, widths of aisles, table heights, level entrances, and elevators with accessible buttons. We developed a list of sixty-five questions with a focus group and then reduced them with weighted scores to thirty-five questions. So far, I've been unsuccessful at getting programmers to finish on-screen entries, but we hope to spread this tool to OT schools and independent living centers. This could help people make the best use of their environment by helping them find the places that are most accessible and provide solutions for places that may not be very accessible.

Mentoring

A student in one of the first groups I mentored for their master's project at Washington University was Kerri Morgan. Shortly after her graduation from the OT program, she began working as a research assistant on many of my grants. For close to ten years, we worked together writing grants and starting many community-based programs at Paraquad. She did so well overseeing the grants, especially the grants related to assistive technology, that with a little assistance she was promoted to a faculty member position and took over my Intro to Assistive Technology course. I am proud to say that she decided to officially pursue a career in research and is currently earning her Ph.D. in Movement Science from Washington University. Kerri has also earned my respect as an athlete. I was honored to see her win a bronze medal in the 200-

meter race as she represented the United States at the London Paralympic Games in 2012. I also enjoyed talking with her about her escapades as a wheelchair rugby player.

Dr. Baum wanted someone to teach an Issues of Disability in Society course to the main campus undergraduate students. Since she had provided six months to prepare, I agreed to it. The seminar was designed to be small; I usually had anywhere from six to seventeen students. That class and the teaching experience overall really came alive for me as the students showed a lively interest in learning about disabilities. I especially enjoyed being able to have the students meet founders of the disability movement, such as Lex Frieden, Max Starkloff, and several others.

When that seminar ended, Dr. Baum asked me to teach a Social Policy and Disability course for the OT program. In addition to teaching, I also served as a research mentor for master's students and undergraduate OT students. Throughout my years at Wash U, I mentored many students and assisted several OT doctoral students with their final thesis.

Grant Writing

My grant writing was picking up and the success of the EMC was evident. The EMC grew when we received a grant from the Missouri Foundation for Health, a collaborative venture between Paraquad and Washington University. This grant added health and wellness services, and both Kerri Morgan and Jessica Dashner were involved in writing it with me. Sue Tucker became project director. Today, the EMC is called the Paraquad Health and Wellness Center and is managed by two former students: Lindsey Bean Kampwerth and Melissa Lyles Smith. The center is run by Paraquad and still offers assistive technology as well as health and wellness services along with collecting research data. The programs offered are in such high demand that a new facility is being constructed to meet the community need.

Another grant for a model demonstration center was awarded to twelve locations across the United States, but the award to Paraquad/

Washington University was the only one given to an independent living center–university collaboration. This venture helped develop an equipment reutilization program and equipment repair program that served as a model for other non-profits to emulate. Persons who could not get assistive equipment funded by typical insurance or who wanted a back-up device could purchase a reutilization piece of equipment at low to no cost and have a professional (OT) fit them to the chair or equipment. In addition, the facility has certified repair technicians evaluating devices to ensure their safety and usability prior to distribution. Two of my former students, Lindsey Bean-Kempwerth and Carla Walker, were involved with overseeing both the AT Reutilization and the Health and Wellness Program. They were also helpful in successfully seeking out local corporate funding from Emerson.

In addition to the grants I wrote at Washington University and Paraquad, I was the principal investigator on a number of grants with collaborators in many locations, including the University of Kansas (for personal assistance services, participation, and the environment), University of Florida (for activity capacities and participation), University of Pittsburgh (for mobility device and participation), University of Michigan (for work, assistive technology, and participation), and University of Chicago (for participation and environment measures).

The measures that I had begun working on upon my arrival at Washington University continued being added to, and now we have quite a few. Here is a short summary of the key measures:

1. CHEC (Community Health Environment Checklist). These are measures for assessing community sites or businesses based on their usability for people with disabilities. The CHEC-M (for mobility) has been published. We have also developed the CHEC-LV (low vision) and the CHEC-HOH (hard of hearing). The ultimate goal for these measures is to create online maps of places that have been assessed using the CHEC so that people with disabilities can obtain online information about how easy or difficult a site or business would be for them to use. Unlike the SPARC (explained below), the CHEC is an objective measure that assesses whether sites meet specific criteria regarding features.

2. SPARC (Survey of Participation and Receptivity in the Community). This is a measure designed to assess various factors relating to participation in the community, which include several types of sites such as restaurants, participant's home, places of worship, doctors' offices, etc., and participants indicate, for example, how often they visit the site, how much choice they have in the location, how assistive technology influences their participation, and the receptivity of employees at that site. Unlike the CHEC, the SPARC is a subjective measure. I would like to eventually be able to use both of these measures in conjunction with each other. As with the CHEC, we have developed the SPARC-M, SPARC-LV, and SPARC-HOH. Also in development is a version geared toward physicians' offices (SPARC-M-DO).

3. PARTS (Participation Survey). PARTS is a subjective measure designed to assess different components (e.g., frequency of participation, influence of assistive technology on participation, importance of participation, influence of pain on participation) of several kinds of activity, such as activities of daily living, leaving the home, exercise, and leisure activities. There are two versions of the PARTS-M: the PARTS-Mv2 is a shorter version, and the PARTS-Mv3 has a few more sites and a few more questions. We have also developed a PARTS-LV and PARTS-HOH.

4. FABS (Facilitators and Barriers Survey). This measure has only a mobility-specific version (FABS-M). It is a subjective measure of the impact of certain factors that can be either barriers to or facilitators of participation. I suggest that, depending upon what people are specifically researching, they use FABS and the PARTS together.

5. MWS (Mobility Device User Work Survey). This measure is specifically designed for people with mobility limitations and assesses many different components of employment for people with disabilities.

These measures are being used throughout the country by various researchers at Georgia Tech, University of Pittsburgh, and many other universities. Additionally, researchers from many other countries, including Austria, Canada, Scotland, France, Japan, India, Switzerland, Norway, Brazil, and South Africa, have contacted me about working with these measures.

Having found the work challenging, I didn't want to stop and retire completely. I wish that I had more opportunity to learn how to teach the new generation of students. The tools I used when I first started teaching included multiple choice tests, essay assignments, and presentations—eventually using Power Point. Here I am, a content expert, but I find it hard to keep up with the variety of new teaching technologies. Soon after mastering Power Point, my teaching colleague Dr. Hollingsworth informed me that I had too much material on the slides. He also suggested that I assign more group projects, although I found that the problem with group projects is that every group usually has one student who complains about doing all the work.

Angie Monzin (now McCombs), Keri DeGroot, Molly Listenberger (now Corrigan), and Jackie Webel (now Schenkelberg) were in one of my classes that was assigned a group project and demonstrated the positive aspects of assigning group projects. When one of them was interested in a topic, they all worked together to do the research, and they returned to class sharing what they had found. They avoided jealousy and other pitfalls and helped each other. (They also worked in my research lab on their OTD projects.)

One thing I recognize about myself is that I'm good at mentoring. Kerri Morgan, who is now finishing her Ph.D. studies, designed and built a treadmill for individuals who use wheelchairs. And my student Jessica Dashner is teaching OT using measures designed by Susy Stark and my research lab. Carla Walker, who helped run the EMC at Paraquad, now oversees a project on Parenting and Disability. Sue Tucker, an All-American basketball player at Washington University, has helped hundreds of people obtain well-fitting wheelchairs—including myself.

Chapter Twelve

My Legacy

My Children

My greatest legacy, of course, is my children and grandchildren.

David lives in Seattle and in 1989 started working for Microsoft, where early into his career, he wrote a program to detect coding errors. He is married to Alicia Yamamoto.

Beth lives in Woodland, California, where she and her husband, James Nackley, have two children, Maggie and Marley. Beth works for Yolo County Library, which serves seven communities including the town of Davis, known for the University of California, Davis.

Dave with grandson, James Marley Gray Nackley

Dave with granddaughter, Magdalena Nadira Gray Nackley

Polly and her husband, Bill Payne, live in Paradise Valley Montana near the north entrance to Yellowstone Park. She owns her own business and enjoys exploring photography, a passion that she shares with her husband.

Margy

How can one describe my wife, Margy? As her father once said to me on a visit after I had broken my neck, "You don't really know what you have. She's one in a million—No, I take that back. She's one in a billion!" No truer words were ever spoken.

As I write this book, it has become even more evident that the wrong person has written it. This book should really be about my one and only, Margy. Thank you for all the blessings you bring to me daily.

Dave and Margy

My Philosophy

If someone were to ask me what makes me happy these days, it's an easy answer. Waking up! I've been close to death so many times I do not take it for granted. Each morning when I wake up, what makes me happy and excited is to know I'm going to see my wife. And I'm going to get to work with this group of students and researchers at Washington University, who are as good as any professional group I've ever worked with, including those at NIH. They are masters in coordinating therapy with theory and scientific results, showing empathy for their patients/clients, and working in the community. Many other therapists seem to be allergic to those receiving their care. My colleagues here look forward to the subject matter we're working on, which to me is the essence of how to survive and thrive.

As Dr. Opitz said, "One has to strive to thrive." And as I learned from Dr. Harlan Hahn, "Who said how different do you have to be to be different?" A thought-provoking comment for people with disabilities—you can make yourself real different if there are tangible ben-

Craig Miller and Dave taking a drive in Craig's Porsche sports car

efits to being different. And you can make yourself not so different if that has tangible benefits.

When it comes to regrets, of course I wish I had never fallen off the roof—I regret ever going up on it. I also wish I had never had conflicts with my mother or at least reduced the number of those. I wish I had shown my father more affection and, as much as I hate to say it, probably my older brother, too. For my sister and younger brother, I have no regrets.

I don't ever regret getting into the profession of psychology. I'm happy looking back at what I did at NIH. I don't regret going to and working in Washington, D. C. Do I regret going to the NIDRR as a presidential appointee? In some ways, it ate me alive, and yet in other ways, I feel that I accomplished some things. And I am proud to have been part of the making of the ADA.

During my lifetime, the invention of the computer and the silicon chip has, in my opinion, had the greatest effect. I was a consultant for Johnson & Johnson when they developed the Ibot Wheelchair that stands on two wheels. It was a thrill when they flew me all over the country to look at their incremental developments. At the Beverly Hills Hilton, when they unveiled what we thought would be the final product, it was all silvery and really cool looking. Also in attendance were three or four presidents of the company, the head salesman, and the Blue Ribbon Panel for the product. Margy, too, was invited. As they excitedly unveiled the Ibot, Rory Cooper, an engineer was seated in it. Then they asked, "Would anyone else like to try?" I said, "Yeah." So I got in and put it up on the two wheels position. I'm slightly taller than Margy, so we leaned over and kissed. With all those high-profile people in attendance, there was not a dry eye. Once in a lifetime! Those chairs can go over grass, curbs, rock and gravel; it's amazing. I also had an opportunity to walk/roll in the Ibot with my mother on the sand at her cottage on the shores of the Straits of Mackinac. When I was young, she used to take me for long walks on the beach. That walk back in time was an emotional high.

As I think about the future, I hope my children and grandchildren

and their progeny will carry on into the future what my dad quoted to me from Shakespeare:

This above all: to thine ownself be true,
And it must follow, as the night the day,
Thou canst not then be false to anyman.
Hamlet, Act 1, scene 3, ll. 78-80

Work hard, be loyal, and don't break the trust of those you love. One gets battered around by trying to be like other people. You need to have a central focus of life, whether a faith or a really well-conceived concept of self. As Dr. Tyce said, "There are few things you can't fix, one is trust. If you break your trust with another, you can never get it back."

Transitions happen.
Be prepared.
Learn to adjust.

When people share a task,
and strength and skills unite
in projects old and new,
to make or do
with shared delight,
our Friend and Partner's will
is better understood,
that all should share,
create, and care
and know that life is good.

Brian Wren
How Can We Name A Love?
(quoted in David B. Gray's Presentation 2010)

Remembering Dr. Gray

Celebrating the Life and Work of David B. Gray, PhD

By Kara Overton

AUTHOR'S NOTE: Initially, I sat down with David B. Gray, PhD, professor of occupational therapy and of neurology, to discuss his career and accomplishments as part of our preparations for his upcoming retirement symposium, which was scheduled for the end of this semester. On February 12, however, he passed away unexpectedly. What began as a celebration of a brilliant career coming to an end has now evolved into a tribute to his life and work.

When talking about barriers and measures of participation for persons with disabilities, David B. Gray, PhD, was an expert. A lifelong learner and advocate for the disability community, Gray's work involved asking questions, gaining an understanding within the communities he served, building coalitions and collaborations, transferring knowledge, and advancing the cause forward. His career spanned more than four decades and included countless accolades, honors and accomplishments. Those who knew him best admired his vision, his sense of determination, his love for his family, the mischievous spark he brought to the room, and the pursuit of excellence he inspired within others.

Throughout the course of our conversation, two main themes emerged from his reflection over his life and career. "When it's all said and done, life has been about figuring out how to overcome obstacles, get good at something and then transition onto the next thing," Gray said. "Just when you learn to navigate the hard stuff and begin to get

comfortable, you transition into a new period that brings new challenges and adventures." And through it all, he added, people influence your path along the way. "There's a saying that says it's not what you know but who you know, and I really believe that," Gray said.

The road to excellence

Born the second of four children, Gray grew up in a tight-knit family in Western Michigan. His mother was a medical social worker, and his father was a physician who hoped to pass his private practice on to one of his children. Always a bit of a rebel and independent thinker, Gray had other ideas. Following high school graduation, he chose to attend Lawrence University in Appleton, Wisconsin, where he received a very abrupt wake-up call right from the start. "The outstanding success story from my time in undergrad is that I made it out alive," laughed Gray. "My first paper came back with a note on it that read, 'D—and that is a gift—see me.'" That moment captures the overall sentiment and paints a picture of his experience in undergrad. "Lawrence was a really tough school," Gray said. "It was the first time in life that I had to really work at something to be successful, but it was those habits and routines that developed as a result of the hard work that would later serve me well amid the challenges that would follow in my life." While at Lawrence, Gray met his wife, Margy. "I was the last to show up for a class one morning, and there was only one seat left, which happened to be between a beautiful blond and a beautiful red head. Tough spot," he quipped with a wink and a smile. A few casual exchanges with the "beautiful red head" turned into more; Margy and Gray dated throughout their time at Lawrence and married following graduation.

After completing his bachelor of science degree in psychology, Gray moved on to pursue his master's degree in experimental psychology at Western Michigan University in Kalamazoo. In contrast to the rigorous and academically challenging curriculum present at Lawrence, Gray found Western Michigan to be much less demanding. Shortly after beginning the program, Gray and his wife welcomed their first child, David, in the fall of 1967. Two years later, their daughter Elizabeth was

born. Upon completing his master's degree in 1970, Gray opted to leave his role as an instructor of psychology at Seton Hall College so that he could pursue his doctorate degree as a full-time student at the University of Minnesota in Minneapolis.

Pursuing the PhD: the road less traveled

Upon entering the PhD program in psychology and behavior genetics at the University of Minnesota, Gray again found himself facing academic rigor. The program was fiercely competitive - accepting only four students per year - and was ranked the top program of its kind in the country. While the program itself was known for excellence, Gray made personal connections while there that would later transform his life. In particular, he met Travis Thompson and Sheldon Reed, PhD. Thompson was his primary advisor and Reed was the director of the Charles Fremont Dight Institute for the Promotion of Human Genetics at the university. Both men pushed Gray to excel during his time in the program, and later became lifelong friends and colleagues.

After a challenging four years, Gray earned his PhD in 1974, and accepted a role as the Director of Behavior Modification at the Mental Retardation Center of the New York Medical College in Valhalla. Shortly after moving his family to the East coast, Gray and his wife welcomed their third child, Polly in 1975. Even as the Grays settled into their new home, they began to consider moving back to the Midwest. In 1976, Gray accepted a position at the Rochester Social Adaptation Center in Rochester, Minnesota, and they returned to raise their young children near their own families.

The detour and defining moment of 1976

Initially, upon moving back to Minnesota, the Grays rented a house while waiting for theirs to be built. Once their new home was near completion, they moved in and worked on it themselves to reduce costs. On a rainy day in July of 1976, Gray's life was forever transformed. The contractor had neglected to cover a portion of the roof that was being worked on, and rain was dripping through the ceiling.

Gray went up to cover the hole, and in the process of coming back down, he slipped, fell and broke his neck. The accident left him paralyzed and drastically changed the course of the life that he and Margy had planned for themselves.

Following the accident, Gray spent an entire year in inpatient rehabilitation, undergoing numerous procedures and countless therapy sessions. For 365 days, he was thrust into ongoing medical treatment that was filled with discomfort, pain and constant trials. It was his first experience being on the receiving end of the health-care spectrum, and one that was forever etched into his mind. People began to treat him differently and many fell out of his life altogether. "That type of situation is hard for people to process," Gray shared. "Many people just don't know how to respond to a change that significant. While there were several people who stepped out of my life, there were many others who stepped up in very impactful ways. Dr. Reed, one of my PhD mentors from the University of Minnesota, sent my family $100 a month for three years following my accident. It was such an incredible act of generosity, and a gesture I will always appreciate. Others visited regularly, throughout my stay in the Mayo Rehabilitation Unit and also after I returned home the following year."

When Gray returned to work the following year, he faced new challenges in his profession. He moved into a role as the director of research at the Rochester State Hospital, but Gray noted that he was treated very differently than prior to the accident. Travis Thompson, his friend and colleague from his time at the University of Minnesota, stood by his side during this incredible time of transition. Upon learning of Gray's predicament and unhappiness with his work, Thompson, who worked for the National Institutes of Health (NIH) in Washington, D.C., notified him about an opening at the NIH. Shortly thereafter, following a series of successful interviews and significant discussion with Margy, Gray and his family moved to D.C. and he accepted a role in the Office of Scientific Review of the National Institute for Child and Human Health Development (NICHD) within the NIH. It was a limited-time position, intended to last for only a year, but it was a new beginning for Gray and his family.

Full speed ahead: Leading the way in Washington, D.C.

Gray described the NIH as a highly complex and efficient government operation with an extensive set of rules and policies. Within his year there, he met several people who helped him navigate the NIH and mentored him along the way. "They have a highly systematic way of reviewing the applications for funding and awarding the research money," Gray said. "Once you learn the system, it's incredibly impressive to watch." It was an environment that Gray appreciated, and he quickly adapted to the culture and took advantage of the opportunities available. Following his first year there, and the completion of the project, he moved into a permanent role as a health scientist administrator within the human learning and behavior branch of the NICHD. During his time there, he helped develop a scientific learning disabilities program that experienced significant growth and increased grant funding from $800,000 to several million dollars in a four-year period.

Within those four years, Gray became very active in the disability movement that was underway. He formed powerful connections with people who were at the heart of the movement in the hub of our nation's capital and emerged as an insightful voice, advocating for the civil rights of people with a disability. Through his networking and advocacy initiatives, he became good friends with Justin Dart and Evan Kemp, who were both proponents of the disability movement. "It was an amazing time to be in D.C., and to be a part of what was happening in the world around us," Gray said. "Regardless of how you get around in society, whether you roll along the sidewalks in a chair or otherwise, you have a right to be heard and treated equally."

Following recommendations by Senate and House members, advocacy by former directors, and concerted efforts by leaders of the disability community, Gray was recommended for a presidential appointment by former President Ronald Reagan in 1986. He soon accepted the role of Director of the National Institute on Disability and Rehabilitation Research (NIDRR) for the U.S. Department of Education.

While Gray's transition to the NIH was seamless and natural, his move to NIDRR was quite the opposite. The U.S. Department of Edu-

cation had a completely different process than anything that was in place at the NIH, and the funding was granted in a much less systematic way. "It was no secret within the NIH that the department of education operated very differently. I had been cautioned before accepting the appointment that NIDRR was quite different, and was beginning to have doubts about the move, but I went ahead with it," Gray said. He laughed and affirmed the decision with his characteristic wit, "I mean, it was a presidential appointment; how do you turn that down?"

Once he immersed himself in the role, he discovered that his concerns were warranted. It was challenging, stressful work, and one of the most difficult roles he held during his career, although it only lasted a year. "Of all of my experiences, my time at NIDRR is one of the things I'm most proud of. It was by far the hardest; I was working nonstop day and night, but I did it and I pushed myself to succeed," he said. A year later, he transferred back to the NIH after accepting positions in the Mental Retardation and Developmental Disabilities and the Human Learning and Behavior divisions.

At that point, a need arose for the development of a new organization that would be devoted to the advancement of research in medical rehabilitation, separate from anything the NIH or NIDRR were doing. In 1991, the National Center for Medical Rehabilitation Research (NCMRR) was created, and Gray was named acting deputy director of the initiative. The NCMRR was tasked with fostering the development of scientific knowledge needed to enhance the health, productivity, independence and quality of life of people with physical disabilities. Gray was instrumental in overseeing the organization's operations and helped select the board members for the group. One of those board members was Carolyn Baum, PhD, OTR, FAOTA, Elias Michael Executive Director of the Program in Occupational Therapy at Washington University. For four years, Baum and Gray worked together on the NCMRR, advocating for the disability community. Eventually, after several attempts, Baum recruited Gray to the Program in Occupational Therapy. "I kept telling him that he could do great things with our Program," shares Baum, "and that when he was ready to quit being a

bureaucrat, he should come to St. Louis. I knew he could truly make a difference by combining his expertise with ours in the occupational therapy world, and that together, we could change lives."

The move to St. Louis

Gray came to the Program in 1995. "It took me a while to figure out what I wanted to focus on," Gray said. "I had spent many, many years reviewing research proposals and requests for grants and funding, but had never actually written my own." He discovered his niche when he began to focus his work on mobility impaired individuals and the environmental support and factors that impact participation. He received numerous grants from the Centers for Disease Control (CDC), NCMRR and NIDRR for his work, and completely revolutionized the science behind occupational therapy by introducing a focus on outcome measures. In 2004, his research team developed the Community Health Environment Checklist, or CHEC, as an assessment tool to measure whether or not a location was truly usable to persons with a specific impairment. Developed around the ADA accessibility guidelines, the list enables occupational therapists and students to objectively assess locations based upon the priorities of people with mobility, visual or hearing impairments. The CHEC has been used to create online maps that provide information about the usability of community sites to people with disabilities, and has become a tool utilized by students and professionals throughout the country. CHEC maps can be located at www.checpoints.com.

In 2005, Gray was instrumental in securing funding through the Missouri Foundation for Health for the development of the Health and Wellness Center at Paraquad. As a fully accessible gym in the St. Louis area, the center serves as a resource to eliminate barriers and help promote overall physical health and emotional wellness for persons with a disability. "David Gray was a phenomenal scientist and was largely responsible for helping our Program and community advance forward in truly significant ways," Baum said. "His work has made a lasting impact, and we owe him a tremendous sense of gratitude for all that he's done for us."

Gray has also impacted lives outside of the research lab. As a teacher, mentor, and friend, Gray made a difference in the lives and professional development of countless students. Carla Walker, OTD, OTR/L, had the opportunity to work alongside Gray in a variety of capacities, and credits him with helping channel her professional course and development. "I appreciated Dr. Gray's unwavering focus on what is needed rather than what is easy. He was a visionary who led our team to make a difference through programs and research that have improved the lives of the disability community on a local, national and international level."

Kerri Morgan, MSOT, OTR/L, agrees. "Dr. Gray influenced minds, policy, programs and rehabilitation processes through his leadership, science and advocacy for disability. He was a big thinker and conceptualized research ideas that were usually way ahead of his time." Like Walker, Morgan also credits Gray for the impact he had not only on the disability community itself, but on her personally. "I selected him as my master's mentor not because he had a disability, but because I had an interest in his work and ideas. He ended up serving as more than just my master's advisor, but ended up mentoring me in living life successfully with a disability."

While his time in Washington, D.C. gave Gray some of the most memorable moments of his career, his time at Washington University certainly offered some of its most rewarding experiences. Gray touched countless lives and made an impact beyond measure for so many people, including former students, colleagues and persons with a disability and their family members. The Program in Occupational Therapy will certainly not be the same without him, but it, along with the communities it serves, will be better because of him. "Dr. Gray built a team of professionals and sent accomplished students into the field for many years. They will continue to have an impact on communities throughout the world," says Walker. "His legacy is true change and opportunity for meaningful participation among persons with disabilities."

What follows are some letters and memories about Dr. Gray shared both before and after his passing.

DBG and the Graylab

by Jessica Dashner and Kerri Morgan

Dr. Gray's career at Washington University began in 1995. During the past 20 years his creativity, vision, brilliance and forward thinking lead to a consistent span of funded projects to improve the lives of people with disabilities. Through his time at Washington University his work encompassed a community based approach. His research focus was participation of people with disabilities in the environment. He developed outcome measures with participation at the core as well as tested interventions (such as exercise, enhanced personal assistance services and assistive technology) to improve community participation for people with disabilities. His measures of community participation and environmental facilitators and barriers have been internationally recognized.

One of the most important contributions made by Dr. Gray was the development of several reliable and valid measures or surveys. The measures Dr. Gray developed include subjective and objective measures of participation and the environment. The most widely used measures include the Participation Survey (PARTS), the Facilitators and Barriers Survey (FABS), Survey of Participation and Receptivity in Communities (SPARC) and the Community Health Environment Checklist (CHEC). The measures each have a district purpose but share the same underlying theme; measure what people actually do in the environment in which they participate in the activity. This was often referred to as his "Do-Do Theory." Dr. Gray was very adamant about including his fundamental belief that participation extends way beyond the frequency of completing an activity in all of his measures. He believed participation is a complex construct that includes a combination of frequency (how often), evaluation (importance, choice, control and satisfaction), personal factors (experiencing pain or fatigue) and environmental supports (accessibility/usability, personal assistance, assistive technology). All of the measures were developed with direct

input from people with disabilities and always strived to "measure what mattered" to people with disabilities.

Another important contribution that developed out of Dr. Gray's creative vision was the Enabling Mobility Center (EMC). The EMC was a collaborative project between Washington University Program in Occupational Therapy and Paraquad, Independent Living Center in St. Louis. This venture was funded through the "Assistive Technology in the Community" grant funded by NIDRR. The original EMC was located on Delmar Blvd. in St Louis. It was a community based facility that housed a mobility skills course and demonstration assistive technology for people to learn about and trial. Additional funding from the Missouri Foundation for Health expanded the scope of the EMC to include accessible exercise equipment for people with disabilities to use with the goal of improving health and participation. The EMC eventually moved into The Paraquad Building and once the funding period was over the EMC became the Paraquad Health and Wellness Center and continues to serve hundreds of people with disabilities each year.

Dr. Gray taught classes on disability policy, research methods for disability research, assistive technology, and disability studies to students in undergraduate and graduate programs during his time at Washington University. He individually mentored over 100 students receiving their Masters of Science degrees in Occupational Therapy and over 20 Occupational Therapy Clinical Doctorate students for their final projects (thesis). He has educated professionals about disability, and mentored people with disabilities to pursue their dreams and aspirations.

Those of us fortunate enough to have had the opportunity to learn from Dr. Gray have been left with a different view of the world. To say we were taught to focus on abilities rather than disabilities is an understatement. We view the environment and lack of access to supports (receptive environments, personal assistance and assistive technology) as the main barriers to participation. We learned how to relate theories expressed by Darwin and others to better understand and expand what Dr. Gray referred to as the "niche of the Homo Sapiens Situs". We learned how to interpret complex muti-colored spreadsheets that

would often extend well beyond column AA and row 300. We have created PowerPoint presentations so large they cannot be sent or received by email. We learned to ALWAYS measure the Do-Do. Most importantly we were learned from Dr. Gray's example how to take time and relate to people. We were challenged to work hard and we were always rewarded by his smile and generosity. In summary, Dr. Gray created programs, developed measures, instilled philosophies and left of legacy of professionals and people that will carry on his work.

Letter to David

Dear David,

I have fond memories of working with you at NCMRR and IOM. You had a mission to break out of a medical definition of rehabilitation science and push the environment as a central factor in making a "can do" definition of disability. I watched you build coalitions, not take no for an answer, and actually "piss people off," especially those who thought too narrowly about environmental facilitators and barriers. I am so happy I found a way to entice you with my vision and lure you to St. Louis. "If you get bored with all this bureaucracy, you really should come to the Washington University Program in Occupational Therapy as a faculty member and build your science," I would tease. It took several years of my teasing but late in 1994 I got a phone call from you asking if I was serious and the rest is history. You came here in 1995, built a lab, linked us with the disability community, got grants to build programs, mentored students, trained scientists, took major policy positions, shared your work around the world, and put occupational therapy in the national and international arena in building knowledge and services to support community integration. You have built your science, produced a second generation of David Gray that now work around the US and world, changed a direction of a program, improved a profession, made a program chair very, very happy (most of the time), and mostly made life better for those who benefit from your knowledge.

Thank you for deciding Washington University Program in Occupational Therapy was the place to do your thing. We are better because of you, and very grateful for the opportunity to be a part of your journey.

Carolyn

Carolyn Baum, Professor of Occupational Therapy, Neurology and Social Work, Elias Michael Executive Director, Program in Occupation Therapy, Washington University in St. Louis, School of Medicine

DR. DAVID GRAY: PERSONAL REFLECTIONS

By Holly Hollingsworth

David Gray often spoke about the goal of full participation in major life activities by people with disabilities; the cornerstone of the Americans with Disabilities Act. During my term at Washington University School of Medicine and into retirement, it was my good fortune to be a colleague and friend of David while he pursued the knowledge necessary to evaluate the progress towards that goal.

Soon after Dr. Gray was awarded a grant from the Centers of Disease Control and Prevention (CDC) to study Participation in the context of the Environment of people with disabilities, I was hired to support the project as a Data Analyst. And as the story goes, that was the beginning of a beautiful friendship. Margie and my wife, Carol, became good friends. David's Children and ours are about the same age as are the grandchildren. So our relationship became personal as well as professional. Rarely did a conversation not include updates and picture sharing of our families. He was a proud husband, father and grandfather.

The CDC project surveyed over 600 people with disabilities nationwide. Participants were asked about their involvement in twenty-four activities ranging from bathing to employment and, in addition, the accessibility of the environment in which they participated. This was one of the first surveys that ask more than do you 'do something like watch TV'. For example, participants were asked about the necessary personal assistance and assistive technology required to undertake each activity. David had apprehensions about capacity measures of participation. He, as a naked man (not a pretty thought) was not capable to perform many tasks. But with personal assistance and assistive technology he was able to pursue full participation in the major life activities important to him.

Participants were also asked to rate their importance, choice and satisfaction with each activity. One of the interesting outcomes of this

research was the concept of Quality of Participation (Social Model) vis-à-vis Quality of Life (Medical Model). This measure of participation became an essential variable in our studies and is defined to be a participant's amount of satisfaction and choice relative to their rating of importance place upon participating in an activity. A low measure of this variable would indicate that a person rated an activity to be highly important but experienced low satisfaction and choice associated with engagement in the activity. Additional constructs of participation that were conceived from this research were a temporal construct (amount of time or frequency of participation and preparation time to do the activity), a support construct (amount of necessary personal assistance and assistive technology to undertake the activity), and a person construct (influence of pain and fatigue associated with participation in an activity).

One of the last papers we published proposed a statistical model to measure the relationship between the constructs of participation in community activities (go to a movie, eat in a restaurant, etc.) and the built and natural environment of the participant's community. The model did indicate a meaningful statistical relationship. As David often said as he scratched his head, in his best Oliver Hardy imitation, 'Once again, Stanley, we have proved the obvious'.

The CDC project spawned important research in various aspects of participation and the environment. Attitudes of the community of people with disabilities had been surveyed but the data were not attention-grabbing until participants responded to the attitudes of people associated with a specific activity. For example, the attitudes or receptivity of the personnel in a doctor's office has an influence on the satisfaction of participation during a visit to the office. The SPARC (Survey of Participation and Receptivity in the Community) Survey, developed by David and Jessica Dashner, OTD,OTR/L, combined participation, built and natural environment with the social environment of specific activities. Another instrument, the CHEC, (Community Health & Environment Check List), developed by David and Susy Stark, Ph.D., was designed to survey specific communities of people with disabili-

ties. The goal was to provide accessibility information of community resources for people with disabilities and for members of the community who want to improve accessibility. Additional research activities included the influence of exercise and the Mobility Device User Work Survey, with Kerri Morgan, Ph.D. and a large, nationwide project, Improving Measurement of Medical Rehabilitation Outcomes directed by Allen Heinemann, Ph.D., Rehabilitation Institute of Chicago, Northwestern University. The on-going work that David did with his good friend Glen White, PhD, University of Kansas concerning Independent Living, an enormous stride towards full participation, is commendable. I know all of this work involved the counsel of Don Lollar EdD, Oregon Health and Science University and David's government co-conspirators from his days in Washington, D.C. I hope I am present when they round up the 'usual suspects'.

I was also fortunate to travel with David to many conferences in the United States and to invited presentations in France, Scotland and Canada. The government agency responsible for disability services in France asked us to present our notion and measures of participation. David and Kerri Morgan presented a well-received overview of our research. My presentation on the data analysis of participation was interrupted by a battery power problem; the incident still brings grins to the attendees[1]. David, Kerri and I also presented our results on the interaction of participation and the environment to researchers and clinicians at the Universities of Edinburgh and Dundee. We must have done something right, since Thilo Kroll at the University of Dundee invited us back for a subsequent presentation and David's apple, complements to the artists Cezanne and Picasso[2], was a focal

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1. The laptop and projector was dismissed after being shown a referee's red card. Quickly, however, a switch on the surge protector was turned to the on position and, to the dismay of some, the statistical talk resumed.

2. Paul Cezanne is famous for still life paintings such as bowls of fruit. Pablo Picasso cautioned the viewer of Cezanne's art not to focus on the apple to appreciate the surroundings. David had an apple in his backpack and it was displayed to the audience remarking that many of us focus on the person with a disability and not the environment.

point of our visit. We also did presentations in Quebec, Canada, on two occasions. Recollections of those trips were the warm friendship and dialog of ideas with Patrick Fougeyrollas, Luc Noreau and others at the University of Laval and experiencing the coldest day of our lives; one trip was in the month of January. Travels with David were always interesting and fun. David, Mike Scheller, David's personal assistant, and I were good traveling companions. I believe because the three of us had athletic backgrounds we, away from the public, acted like we were in a locker room. Someone remarked on David's passing that Heaven will soon have curb cuts. I thought he would body check a few people in a hockey game before he worried about curb cuts. Anyway, airport layovers always included locker room trash talking and David gave out as much as he took. To some we probably looked like the three stooges and we all knew who the Curly character was. I won't say anymore and one should not believe anything Mike might say but those were some good laughs.

David Gray was passionate in his quest to seek the means for full participation in major life activities for people with disabilities. Man has always searched for immortality. Years ago, a Department Chairman praised me for my teaching. She said that man is not immortal but the ideas that a mentor imparts will live on. During his tenure in the Program in Occupational Therapy, David mentored, cajoled, and treasured, but also imparted his passion to students who have become important to the achievement of the goal of full participation in major life activities for people with disabilities. His passion and ideas will live on. Thank you David for having been a colleague, a mentor, a leader in disability studies, and a good friend.

Co-Worker and Friend

by Mike Scheller

I was introduced to Dr. David Bertsch Gray by a mutual friend, Trish Welch Saleeby. Our adventures began in the late 1990s, with evening visits in the Gray home, and progressed to our working together at Washington University School of Medicine Program in Occupational Therapy. Dave provided me many opportunities for world travel, self-exploration, and local community change. As his manservant.

Individual stories of Victories, Failures, and Funnies are many. I only wish I had recorded them, for time has taken most away.

One Funny Story:
Dave had a cousin named Jonny Gray from Rogersville, Tennessee, who was in town to see Dave's new wheelchair, which could go up and down stairs and a whole lot more. So, Dave was taking the chair through all the functions, and one of us noticed that one of the tires was low, requiring some air. Well, Cousin Jonny and I began filling the tire, and all of a sudden, I found Cousin Jonny and myself tumbling backward as the tire exploded.

One Scary Story:
Dave had a great idea to change the department of social security and how it handles employment for people with disabilities. He assembled an A team of colleagues, and we moved to Maryland and began the hunt for residence. Dave had this great list of properties, but after exhausting the list with no real winners, I suggested we just drive around the neighborhoods near work to see if any popped up. As luck would have it, we found a little carriage house for rent, and we began moving in. The place was once a horse stable but had been converted to a home for the mother of the lady who owned the property. The house was relatively accessible, requiring minimal work to widen a couple of doors. We would split our time between the office and working on our new home.

On one occasion, we returned home; I went upstairs to change into work clothes when I heard Dave yell, "emergency!" I responded, "Emergency?" To which Dave said with such panic, fear, and pure terror, "emergency!!" This was serious. I was naked and able to grab my underwear and, one leg at a time, leap down the stairs wondering what lay at the bottom that could possibly be such an emergency. When I enter the front room, Dave was the first person I saw; he looked very nervous about something that I could not see. I began to hear banging noises. As I came around the corner, I saw that in our living room was a young woman who appeared to be running around to all of the windows hitting them. As I came into the room, she noticed me and said, "Hmm . . . not bad." I instructed her to leave, and as she headed in my direction, I could see blood on the palms of her hands. Her eyes were the bluest and most distant I'd seen; her hair was salt-and-pepper gray, her skin wrinkled as that of an older person, and she was determined to make contact with me. Dave opened the door, and our guest was escorted in a most gentle way to the gravel driveway. She began running barefoot to the next home down the street. Dave called the police and, what do you know, here she comes again! So I assisted her to a position of safety and comfort, while Dave gave her a drink of water. The police came and took her home down the street, where she lived at a group home for drug-dependent women in our neighborhood.

I hope we continue to make more memories.

An inspirational mentor and friend

by Thilo Kroll, Dundee

It must have been in the summer of 2009 when I received an email from Dave. I had known Dave from my annual attendance at the American Public Health Association meeting. I had been in awe of his many achievements—many of them, I had not even heard about back then—but even more so because of the interesting research that he and his team and colleagues had been involved in. So, when I received this email, I had to read and re-read it two, three times. Dave wanted to come and visit me in Dundee, Scotland. In Dundee! I had relocated to Dundee only four years earlier and thought this was the perfect place to hide, as most people would suspect Dundee of being in Australia and infested with crocodiles. No, Dave found me. Perhaps, it was the call of his ancestral home, with the Gray name first appearing in Scotland in the middle of the 13th century. And in fact, the Grays left quite an impression in the Tayside and Fife area between Dundee and Edinburgh. The Grays supported Robert the Bruce in the Wars of Scottish Independence (yes, the one before 2014!), and Sir Andrew Gray's services to the Scottish crown were rewarded with land grants, including Longforgan in Tayside.

Well, whatever sent Dave Gray on that journey to Dundee, I was full of nervous anticipation and excitement. After my first shock (30 seconds or so), I replied and said it would be absolutely fantastic if he came to Dundee. The next email from Dave said that he would be arriving by train. That in itself is not a major surprise, as Dundee is about to lose its last scheduled Airlink soon. However, he said he would come by train from Zurich via London! I saw instantly a myriad of accessibility barriers. Well, Dave saw adventure and opportunity. In the run-up to the visit, the composition of the visiting team grew to include many of Dave's valued colleagues, Dr. Holly Hollingsworth, Kerri Morgan, Meghan Gottlieb, and Mike Scheller. After some sleepless nights, we had a fabulous program for the visit, and Dave and his colleagues

connected, not only with other disability and rehabilitation researchers at Dundee University, but also with colleagues from Queen Margaret University in Edinburgh. Staff and students were delighted with the inspiring and eye-opening seminars presented at both universities. Dave and the team left lasting impressions and are fondly remembered in conversations with our Dean Margaret Smith and disability and rehabilitation research colleagues such as Jacqui Morris and Frederike vanWijck (now at Glasgow Caledonian). Clearly, we did not manage to scare Dave off. Instead, he sent us the brightest young minds over the following years as part of an informal exchange arrangement between the Program in Occupational Therapy at Washington University and the Social Dimensions of Health Institute (SDHI) of the Universities of Dundee and St Andrews. Susan Crumbaugh, Jade Gross, and Lea Poeder completed their final internship with us in Scotland and contributed vastly to research development in the disability, rehabilitation, and health area of our institute. Our research is substantially influenced by Dave's work on the understanding of participation as a dynamic interaction of personal and environmental characteristics. His work on the objective and subjective features of environments and the environment's perceived and objective constraints and possibilities are reflected indirectly as well as directly in the research that we are undertaking.

In 2011, Dave and colleagues came back to Dundee. This time, Dave was the invited keynote speaker of our conference on rehabilitation and participation. After meeting Dave at the station (this time he did not travel quite as far by train), we managed to drive a receptionist nearly to tears as she could not find the reservation for Dave. My head turned dark purple out of embarrassment. Only then did Dave volunteer that we might actually be in the wrong hotel and that his reservation may indeed be for the place across the road. . . . Fortunately, he was right and my facial colour returned to its normal palish complexion. The conference is still one of the proudest highlights of our institute, and it would not have had this significance if Dave and his team had not been there. Since, I have seen Dave in St. Louis and a great friendship has developed. What has always struck me when meeting Dave is his pro-

found humility and humanity, his incredible patience, and his phenomenal ability to listen in addition to having a mind that seemingly never sleeps. Thank you for everything, Dave Gray, friend, mentor, inspiring colleague! Looking forward to many good conversations in the future.

Student thoughts

by Angie McCombs

At the center of the student experience for many Washington University Occupational Therapists, Dr. Gray fostered an environment immersed in creativity, innovation and passion. His dedication to his students, his work and the profession was a daily inspiration on each of us.

Creativity and innovation is the cornerstone of Dr. Gray's leadership. Dr. Gray's students learn to think outside the box, developing solutions that fit the need of individuals with mobility impairments. This line of thinking helped push us to become better Occupational Therapists, unwilling to accept status quo, and unwavering in the further development of our profession. The opportunity to work with participants at the EMC was an invaluable lesson; we not only researched participation we participated. The individuals we worked and connected with strengthened our clinical skills and reasoning enhancing our creativity and innovative OT skills. The unique ability to work with participants with mobility impairments and better understand the barriers to participation in everyday life has forever changed our clinical reasoning to eliminate barriers and enhance participation.

As a mentor, Dr. Gray was able to infuse Occupational Therapy with other professional fields. This lead to learning opportunities for students at Centro Ann Sullivan del Peru a school for kids with DD, the National Institute of Health (NIH), Nova Scotia at Dalhousie University with Dr. Lee Kirby, Washington DC at Office on Disability at the US Department of Health and Human Services under Dr. Margaret Giannini, and the National Center on Health, Physical Activity and Disability (NCHPAD) as well as many others. Not only did Dr. Gray push for creative learning opportunities for his students but also inspired us to develop our own research interests and present at conferences such as AOTA, APHA, ICF and RESNA.

Most memorable in the traits Dr. Gray exhibited, was his passion for what the profession could become and should do to increase par-

ticipation for those with mobility impairments. The Enabling Mobility Center is a physical and leading example of his innovative passion for what the profession can and should do to successfully integrate individuals with mobility impairments into the community. Dr. Gray installed a priority on doing, not just thinking. His passion took on action and he instated a drive to not just create in academia but to develop and implement accessible communities in which we participate.

Dr. Gray's impact on his students extends well beyond the research, academia and EMC. Lessons learned in leadership in the EMC have transitioned into leading strong careers, families and lives. As strong as we developed as clinicians, Dr. Gray's mentorship, leadership and guidance made us stronger as advocates personally and professionally.

Dr. Gray welcomed us into his lab as OTD students and over three years into his life. We became a family that supported each other through the vigor's of the OTD program and Gray Lab. Relationships between classmates blossomed into friendships and now life-long bonds. From grueling tests and research to now the busy schedules of careers, children and spouses we value the relationships that formed during Gray Lab.

As clinicians we continue to utilize the resources and materials learned from our time with Dr. Gray and the EMC. The multiple publications, assessments and resources as well as an ongoing passion to further his former students clinical growth will forever impact our profession. This knowledge and innovative thinking have created passionate, superlative occupational therapists willing to dream, advocate and implement change. We are all proud and honored to connect the roots of our knowledge and thinking back to Dr. Gray.

We were, we are and will forever be part of Gray Lab! Thank you for all the memories and for the connections you have created professionally and personally that will continue to impact our lives forevermore.

Kerri Morgan, MSOT OTR/L ATP, former student, colleague and friend

I first met Dr. Gray 15 years ago when I was a student in the MSOT program at Washington University; he had just joined the faculty. I was the only student at that time that had a visible disability. I selected him as my master's mentor not because he had a disability but because I had an interest in his work and his ideas. He had so many experiences and stories about his past that I just wanted to soak up all his teaching about his work and about his life. Dr. Gray quickly became more than just a master's advisor to me; instead he began mentoring me in living life successfully with a disability.

After graduation Dr. Gray hired me for a 6 month position at Washington University and 16 years later I am still conducting research at Washington University! I couldn't leave because Dr. Gray instilled in me his ideas and passion for improving the lives of people with disabilities through research and community based programs. To this day I have a hard time referring to Dr. Gray as Dave. While, I now consider Dr. Gray a good friend, he will always be Dr. Gray to me. This formal reference only comes from the great amount of respect I have for him as a person and as a colleague.

Throughout the years, we have shared many experiences and can tell numerous stories . . . some we can finally laugh about!

Work often took us to national and international conferences and meetings. I travel in a manual wheelchair and he travels in a power wheelchair. At the end of one of our flights, we were the only two people left on the plane waiting for an aisle chair to help us off the plane. The flight attendants were having a discussion directly in front of us, like we were not there, about the best way to get us off the plane. The plan was that since I "moved better" that they would get me off the plane first but that he "did not move so well" they were going to need more help. We still joke with each other about how I move better! On another flight, the attendant asked Dr. Gray, if just this once, he could

walk himself off the plane. I told Dr. Gray they asked so nicely that maybe he should consider doing it just this once!

At these conferences and meetings we got to share our work that was built on Dr. Gray's "do do" philosophy. His research focus is participation of people with disabilities in the environment and his measures of community participation and environmental facilitators and barriers to full participation by people with disabilities is internationally recognized. The basis of his work is the importance of understanding what people "do do" rather than what they "can do" (aka the DO DO philosophy). I am not sure how he gets up in front of hundreds of people and talks about "do do" with a straight face but with this philosophy he is able change people's way of thinking and affect community change.

To this day some my greatest appreciations for Dr. Gray are . . .

His background in behavior genetics and his appreciation for Darwin. He is somehow able to bring Darwin into most work related discussions.

He always offers to share his lunch and snacks. . . even his radishes.

He cares and supports the people around him. Whether I am participating in wheelchair track or wheelchair rugby he stops to ask me how my training is going, what my times are, and share stories of his competitive days. He would tell me about how his mother would feed him a large steak the night before a big track meet and to this day I eat a big steak the night before my track meets. I think they were on to something!

He strives for excellence in his work and challenges others to do so.

He is a big thinker. He conceptualizes research ideas that are usually way ahead of his time.

He has a great (and sometimes odd) sense of humor that helps keep the learning and work fun.

He is an avid reader from the daily newspaper to autobiographies.

His quirky love for British humor and PBS!

Dr. Gray is a great listener. He makes an effort to listen to ideas, problems and stops and asks about life. But if you have a problem . . . be ready with 3 solutions to the problem!

Jessica Dashner, OTD OTR/L

I am honored to contribute a memory (or two) to Dr. Gray's memoir. I first met Dr. Gray in his role as a professor in the Occupational Therapy Program at Washington University. He taught the class on Assistive Technology, and I was instantly drawn to him by his sense of humor, vision, knowledge, and life experiences. I knew at the beginning of that class that I wanted to work in Dr. Gray's lab and soak up as much knowledge from him as possible. We hit it off right away, and I was his first student to receive the Doctor of Occupational Therapy degree. We entered those uncharted waters together, and I am forever thankful that he accepted the challenge! After graduation, I continued to work as a research associate in the lab and have worked for him for over 12 years. Over the years, he has provided me with an immeasurable amount of professional and personal advice. He has become more like a father to me, and I owe much of my success to him.

There have been so many memories made in the "Graylab". The ones that stand out the most have to do with grant writing escapades and numerous trips to (not-so) exotic places. Most of the grant writing experiences can be described using words like stressful, chaotic, and down-to-the-wire, but they were also full of laughter and were oftentimes successful. The one I remember the most even included an all-nighter! The entire team (willingly) stayed through the night working on the proposal, and we even pulled off a few April Fools jokes after midnight. One of the things Dr. Gray does best is assembling and leading a team. You won't find too many bosses able to have an entire group of people dedicated and motivated to work through the night on a project.

The majority of the trips Dr. Gray, Mike Scheller, and I have taken together have been to D. C., Kansas, and an occasional trip to California. We seem to only make the drive across Missouri on days that have torrential downpours of rain. I remember one particular trip to Lawrence, Kansas, when the van began taking on water. I happened to

be about 8+ months pregnant riding on the back bench seat with my feet propped up on the suitcases because they were not close to touching the ground. At one point on highway 70, the floor in the back of the van began filling up with water! Once we were sure that my water hadn't broken, we had to immediately pull over to get the suitcases to higher ground. I believe that trip also had an interesting ride home (with Mike driving), when we were almost taken out by a number of large tucks. We have had a few interesting interactions with the locals in California. We met a very nice man (who let us know that he was in charge) while attempting to use the BART to attend a meeting. As we approached the elevator, we noticed Mike nose-to-nose with a man who did not want us to be in his space. Needless to say, it was the longest one-floor elevator ride we have ever taken! We have had many close encounters with missing flights but always made it before the aircraft doors closed. Our trips were always filled with adventure and provided great stories when we returned.

I continue to be amazed by Dr. Gray's connections, drive, compassion, generosity, and ability to make people strive to be better. His creative vision and work ethic are unmatched. He has introduced me to some amazing people and presented me with opportunities I never thought were possible. There are really no words that can express the amount of gratitude I have for all he has done. We have endured a lot of highs and lows over the years, but he has always been there for me advocating on my behalf. I can only hope to one day to be half the mentor, educator, and researcher he has been!

David B. Gray—The visionary and mentor

by Carla Walker, OTD, OTR/L, ATP - Mentee of Dr. Gray

In 2002, Dr. Gray sought to hire a project manager for the NIDRR grant *Assistive Technology (AT) in the Community*. Thankfully for me, I was selected for this position, which ended up setting the course for my career under Dr. Gray's guidance. Dr. Gray and Kerri Morgan had written into the grant an event called The Assistive Technology Consumer Fair. They wanted to showcase AT in an accessible, interactive venue that was geared toward the individuals with disabilities who would be using the AT rather than the typical industry focus on vendors and manufacturers. The vision Dr. Gray had for the AT Fair came alive and was embraced by Paraquad Independent Living Center, even after the life of the grant had ended. To this day, I meet people who express how attending an AT Fair changed their lives. One connected with a program to provide assist dogs, while another learned about an accessible gym and how they *can* exercise with multiple sclerosis. Paraquad is now in the process of planning the 2015 AT Fair thanks to Dr. Gray's vision to provide information and access directly to the disability community.

In 2005, Missouri Medicaid decided to drastically cut funding for AT. Most memorable was the decision to not fund batteries for power wheelchairs. Good luck trying to use one without batteries! Dr. Gray, in conjunction with Bob Funk, then CEO of Paraquad, decided to start an equipment reutilization program. The AT Reuse Program sought to provide used equipment to persons who needed it and could not get funding through insurance. Dr. Gray led a team to write and receive a grant to support the equipment reuse program through the Department of Education. The program continues today to serve persons who need AT, but cannot qualify for coverage.

Throughout my time working with Dr. Gray and serving on Paraquad's management team, another unmet need in the disability community came to light: assistance for parents with disabilities expe-

riencing discrimination. For many years, Dr. Gray had served on the board of the nonprofit organization Through the Looking Glass, the national coordination center for parents with disabilities and their families. In St. Louis, he was sought out by parents who discovered his connection to the non-profit. Dr. Gray served as a peer mentor for some of these families, speaking from his personal experiences parenting with a physical disability. Some of the parents needed additional assistance, such as AT, home adaptations, and advocacy in courts. Dr. Gray delegated these inquiries to me, and I never stopped taking them. After several years of helping parents gather the resources they needed, in 2006, Paraquad began a support group for parents with disabilities called the Family Participation Program. Dr. Gray guided the development and founding of the group. In 2011, I transitioned from Paraquad to the Washington University Program in Occupational Therapy to pursue a doctorate in OT with a focus on parenting and disability under Dr. Gray's mentorship.

Dr. Gray has served as the ideal mentor in that he pushes his mentees to fulfill their greatest potential. He always believed in my abilities and supported my efforts to seek funding. Dr. Gray constantly facilitates development and growth, never questioning an effort simply because it hasn't been done before. He mentored me to seek and obtain a grant for the parenting needs assessment as a part of my doctoral work, even though seeking grants was not standard procedure. Dr. Gray places the goals of his staff and students before his own. He instills confidence in his mentees by giving them the autonomy to seek their goals while maintaining support on the highest level. Dr. Gray connected me with Judi Rogers, the premiere expert in the field of parenting and disability. He made it possible for me to have an apprenticeship with Judi at Through the Looking Glass and has supported my efforts to start a new program for parents with disabilities in St. Louis. I feel confident that, with Dr. Gray's mentorship, the individualized parenting program will join the successes of the AT Fair, accessible gym and AT Reuse Program, because of his unwavering belief in the desire to do what is needed, not what is easy.

Dr. Gray is a visionary. He has led our team to make a difference through programs and research that has improved the lives of the disability community on a local, national and international level. I appreciate his level of respect for his mentees and absolute availability. He is always available to read through a draft or discuss an idea. Dr. Gray supports his staff, students, and mentees with his attention, time, skills, feedback, wisdom and enthusiasm. I appreciate how he instills confidence in those around him to seek out and accomplish big things. Dr. Gray is exceptionally accomplished, but never portrays himself as too busy or too important to address the current needs/concerns of staff/students. Dr. Gray pushes his staff and students to accomplish their highest achievements by believing in their strengths and making connections/opportunities to expand upon their skills. Dr. Gray has built a team of professionals and sent accomplished students into the field for many years that will continue to have an impact on communities throughout the world. His legacy is true change and opportunity for meaningful participation among persons with disabilities.

I am eternally grateful for the opportunity I've had to be mentored by Dr. David B. Gray. It has changed my life and helped me to continue to make a difference in the lives of those I serve.

Ode to Ideas

Click, click, hum down the hall
I hear Dr. Gray come.
I try to run, I try to hide,
I try to escape the "idea guy."

He must not eat, he must not sleep,
For that would limit his time to think.
He's working on this, researching that.
He wants my help, he wants my staff!

Americans with disabilities, get off your duff—
Its 2015, long enough!
You're in a chair, he doesn't care.
High expectations are always there.
Science, technology, engineering and math,
Greet a shopper, incur his wrath!

I'll have some reprieve, he's going to retire.
Who am I kidding? Expectations will be higher!

What's the big deal? Why do I care?
Well, he's done everything—been everywhere.
You should hear the stories, see his wall.
He is surrounded by heroes and respected by all.

He shares his knowledge and showed me the ropes.
He gives me direction and rekindles my hope.
He is my mentor, he is my friend.
He challenges me to fight—and never say "when."

Dr. Gray is greatly admired.

Aimee Wehmeier
Executive Director and CEO, Paraquad, Inc.

February 15, 2015

Dave's Letter to Friends:

Dear friends,

Just a note to let you know I arrived safely at the other shore, even with some difficulty during the transition. I am beginning to realize some of the advantages.

First, my hands are flying over the keyboard as I write this. No more pencils in tenodesis braces. Know my OT colleagues will appreciate it; this is just terrific. And going through door ways no longer requires smacking that dratted opener with the wheelchair on it. I hated that! And guess what, after a few fleeting moments of walking around (assuming that would be heaven), having chunked the clunky briefcase since everything here is in your mind—including no payments for anything so no need for cash or cards—I realized most EVERYONE here uses a chair. They are so cool, aerodynamic, sleek, plus you get everywhere much quicker—so why walk!! (Harlan is challenging all the TABBIES to race). And one more great thing, of course EVERYTHING is ACCESSIBLE. There are only front doors, not side or back doors and alleys you have to negotiate to get in. What a treat! When JC (Jesus Christ, but JC here) told his disciples he was goin' "to prepare a place for you", I didn't realize it meant ACCESSIBLE!

Did I say there are no back doors. Actually, there is one small door at the back of one of the buildings. I asked Justin what it was for. He said it was for the politicians who refused to pass the UN Convention on the Rights of People with Disabilities, plus the ones who require that parents of kids with disabilities and adults take time from their day to come and testify at how tough things are; after which they all are brought to tears and give a pittance for support—thinking that's gonna be fine with –oh, I forgot. He is really a she—you know, "when God

created man, she was just joking". Oh, the door leads into a maze of steps—endless steps, that lead—nowhere!! Honest, I must say it is fun to watch those guys try to find their way when they have no support.

After the research reports that take up a good deal of my time, I'm also having fun getting back to hockey! Was Boom Boom ever surprised by my hipchecking him into the boards. Lord, that was fun. Finally, with an eternally strong breath, I joined the heavenly choir. I heard that JC thought he was a better golfer than Bobby Jones and that didn't work out so great for him up here. Then he thought he'd become the choir director. King David had the job, evidently for a long time, and then was succeeded by JS Bach. Now Robert Shaw is in charge—a little cranky, but what a sound we make. You'll just love it.

Well, enough about me. Hope all is well with you guys. Remember me fondly, but don't talk about me like I was a saint. Only now do I get that title!

Your friend, Dave

(my half-waking communique from Dave—Don Lollar)

Margaret E. Gray, PhD, wife

Life is a collection of many encounters, opportunities, challenges, and victories. Coincidence plays a part, but I believe that many events that define Dave's accomplishments result from his energetic spirit, and amazing resilience.

Everyone who has spent time with Dave has a sense of his persistent energy. His mother's accounts of his school-years include time-after-time getting calls from the school due to his inability to sit still, sometimes interpreted as intentional misbehavior, "bad boy!" Thankfully, he learned to channel much of this excess energy through rigorous physical and mental efforts. Mainly hockey, but track and other sports consumed a lot of his time and energy in his youth. Although strenuous sports are no longer a part of his life, he works out every day with adapted equipment, and his intellectual and emotional energies have been directed in important, productive ways.

As he reflects on experiences of his childhood, he is able to put them into a perspective and can even see many of the situations through a lens of humor when he was accused of "misbehaviors". Though some were emotionally hurtful at the time, I believe they contributed to his deep understanding of people, including authority. His great sense of humor, a quality that has always made him a joy to be with, valued by friends, family and co-workers, has kept his spirits buoyed through the toughest of times. This trait which may have some genetic links has been bred into our children. I'm sure environmental factors contribute to nurturing this disposition, also. Our children have all developed good humor, know how to have fun, and can laugh even when they are sometimes the brunt of other people's wit.

Polly, as the youngest, has always been very good at finding enjoyment in life-experiences, and learned early that she had a knack for entertaining others. Likewise, her grin-and-bear-it spirit was evident when a mistake or mishap left her being "laughed at." Growing up, she would be expected to be lagging behind her siblings since she

is much younger; she is nearly 6 and 8 years younger than Beth and David. But, she was ordinarily able to hold-her-own in discussions and disagreements- which were a ritual every night at the dinner table. However, one evening the conversation got into a topic that lost her interest and, knowing she was expected to stay at the table, she got consumed with boredom and gradually dozed off. The rest of us noticed only when she started to slide off her chair—and hit the floor with a howl. Beth (sitting closest and hopefully aware she was not hurt), candidly remarked, "That was a rude awakening!" Polly, as usually, made a quick recovery.

Beth, about 5 years old in the pre- "princess" days had, nonetheless, found a fascination with kings, queens and their royal families. This fascination was fostered by early exposure to many fairy tales. She coined herself "Queen Elizabeth," along with anointing the rest of us: King David, Prince David, Court Jester (Polly), and Maid Margaret. Polly and I both fully lived up to our titles.

Polly's joy in life has always been contagious and creative. She's a natural entertainer (if not a jester)! One Christmas when she was about three, she saved a cube-shaped paste-board box of a compact size that she could squeeze neatly within. The top was attached at one side, so she could hide and peep out—the spy. That got old, quickly, so she decided it would be a great platform for her to be a jack-in-the-box. The game was a hit, lots of singing, with Polly springing out as the lid flew open! Beth contrived a handle (for winding) on the side which required a second, active, player. And the box was a living room fixture for months—frequently adding action and entertainment.

David, our son, developed extraordinary computer and technology skills- all self-taught. Throughout his high school career he worked with a local company, Bethesda Computers, largely as a trouble shooter. Returning home one Saturday after a day at work, he told us he had been dispatched to the home of a man to set up his newly purchased computer system. He was pleased that he could do this successfully because it needed to be highly specialized; the man was quadriplegic. As David was talking to us about the experience, he mentioned, "He's

worse off than you are, dad." And Dave's response was: "You mean he has two teen-age sons?" The nuances were not lost!

Dave's intense interest in history and historical figures has always amazed me. Although he has a keen mind for science and research that define his career, his avocation is history. He tackles volumes of reading by and about great people, great historical events including wars. He is often immersed in reading and treasures the hours he spends absorbed in these tomes. In our travels, we often visit historic sites, homes of presidents, battlefields, and military museums. I have certainly been enriched by having shared these experiences. Nonetheless, I am not always up-to-par with his intense level of interest as he examines every document and display in a war museum or needs the time on a historic battlefield to read from every marker and monument.

Two intriguing and powerful historical figures for whom Dave has great admiration are FDR and Churchill. Living in turbulent times, each with challenges of their own, accomplished great victories and prominence. Last year, Dave read six volumes by Winston Churchill. With his high regard and insatiable interest in Churchill and his times, this was an absorbing venture. He relished Churchill's perspective on events of the time that were not always consistent with other accounts of history as he knew them. Dave delights in the words of Churchill, which could be his personal mantra: "Never give up!"

Vacationing in London a few years ago, Dave was determined to visit the Churchill War Rooms, the wartime bunker in which Churchill and his government were sheltered during the Blitz. We had to fit it into our last day abroad along with an essential errand which was getting my stolen passport replaced at the U.S. Embassy. Both ventures were interesting, even for me! The Embassy is located within easy walking distance of the Churchill War Rooms. We started at the Embassy just to be sure that I would be able to fly home the next day. Arriving in front, the public entrance appeared minimally accessible with a chair-lift on a track up the otherwise splendid flight of steps. We needed help, but were abruptly informed that the lift was broken. So we were escorted in through the garage. A fleet of guards walked us around the building,

opening a huge garage door for our entry. A spiked rail rose from the ground (a warning!), but it was retracted for Dave to roll over safely. Meanwhile, I thought this should be captured in a few photos. I failed; without warning, my camera was confiscated. Eventually, I did get my passport and reclaimed my camera (with the film removed). And we were off to the War Rooms.

The War Rooms proved to be a very busy, popular site. We waited in line, and nearing the entry, we were told by one of the officials that the elevator was not available. It had been loaded with packages, perhaps a convenient storing place. However, we were not so easily dismissed: Following a lengthy discussion with some higher official called to the scene, they decided that the cargo would be removed, and we could proceed to the underground site. A couple wonderful hours of exploration followed. Then when leaving, the elevator failed—it would not ascend! (Maybe we would miss our flight after all?) The other visitors were delayed both from departing and entering. Yet everyone remained in good spirits with many offering to assist. In the end, some burly gentlemen transported him up the stairs with a couple hoisting each side of the wheelchair. A good ride, and a good interaction with our English comrades!

Franklin Delano Roosevelt has always been admired by Dave. Beyond the remarkable accounts of his presidency, living exuberantly and creatively with his physical challenges makes him even more intriguing. The idea of living in a time when physical disability was not accepted and needed to be "hidden," makes his story even more compelling. While we were living in D.C. we visit FDR's home in Hyde Park, New York during one of our ventures north. The site is a splendid setting, with the elegant home and beautiful country side. Dave was very impressed with the home's accessibility features which are all very inconspicuous. For example, instead of an elevator, FDR used the dumb waiter to hoist or lower himself between floors. Imagine the arm strength!

The FDR monument in D.C. was constructed shortly after we had moved from D.C., but we have had opportunities on return visits to see this unique and interesting memorial site. On our first visit, Dave found it discouraging that FDR's images did not include any with

him in his wheelchair. And he was not alone in noticing this: Hugh Gallagher, international disability advocate and author of *FDR's Splendid Deception* (1985), spearheaded an effort throughout the disability community to raise the funds to add the missing statue. Dave was an eager contributor. On our following visit, the statue had been added; FDR seated in a wheelchair, appearing vital and active. The statue was a meaningful tribute to FDR, the man and his accomplishments, who saved our nation, perhaps all of mankind, in spite of his physical limitations!

Dave's love of history goes along with his passion for science. They converge at times as is the case with his interest in Darwin. Dave has read historical accounts of Darwin's life and his original writings such as *Voyage of the Beagle* and *The Origins of the Species*. Now, I do like to share his interests, and a few years ago, I decided to read more about Darwin. My choice was historical fiction, *The Origins* by Irving Stone, a wonderfully enriching story, enjoyable and quite factual not only about Darwin but English society of the times. Also, it offered a lot of conversational fodder for things I could discuss with Dave. I encouraged him to read it, too, even though he berates "historical fiction" claiming it is self-contradicting, i.e., something that is "historical" *can't be* "fiction"! Additionally, he objects to an author putting words in the mouth of the characters, the fictional dialogues that are written to keep the story compelling. Dave's point is: "How does the author know what they would have said?" Nevertheless, he did read it which helped him see why I like historical fiction, and I think he enjoyed it, too!

On a trip to England in 2000, we spent a day at Downe House, Darwin's home outside of London. The house with museum-like qualities was interesting to both of us, but I wanted to spend some of the time exploring the pathways Darwin walked as he pondered his science and visit the fields on the estate. Unfortunately, these were closed to the public at the time because of an epidemic of mad-cow disease. It was pleasant enough for me to spend the day in the museum and adjacent gardens, but Dave claimed he did not get to everything he needed to see in the museum/home. Nonetheless, he took the opportunity to

returned to Downe House recently when he and our son went to the 2012 London Paralympics, having planned ahead to visit this along with other historical sites of England and France.

Whether work or family commitments, Dave has always been action-oriented; he sets the bar high, gathers his forces, and moves forward! Throughout his career he has notable accomplishments that are seldom seen as single events, but have evolved with his mission to enrich and empower the lives of others. As a presidential appointee, he initiated an effort for change and carried it through congress while he was the Director of what is now NIDRR. To represent this important government agency as contemporary and enlightened, he changed the name of the "National Institute on Handicapped Research" in 1986 to the "National Institute on Disability Research and Rehabilitation" (NIDRR). A more systemic change was his successful efforts to bring applied research to the National Institutes of Health (NIH) which is the hallowed grounds of basic scientific research. He established and became the first acting director in 1991of the National Center for Medical Rehabilitation Research (NCMRR). Applied research ordinarily has more everyday relevance, and can contribute significantly to quality of life for people with disabilities. His work at NIH including NCMRR was, in simple terms, overseeing the research of others. Although he was very good at this and enjoyed the many interactions with researchers and their research, he was eager to conduct his own studies that would improve the lives of people with disabilities. This led him to Washington University. As a researcher and professor, he has led important research in community participation, mentored a lot of amazing students many of whom have already impacted their fields of specialty, and he has helped position the university in a unique way in its collaboration with Paraquad, St. Louis' premier independent living center.

Dave has more long-term, deeply loyal friends in all walks of life than anyone I have ever known. If not a close friend, he is ordinarily communicative and friendly and never intentionally rejecting of others. Regardless of all his productive accomplishments, great friends, colleagues and a loving family, there are a few outliers who do not hold him in such high

regard. I believe his drive to accomplish his goals, including impatience with those who deter his efforts, has sometimes led to unfriendly feelings of the detractors. In other words, he has some antagonists, the price one pays to hold to their convictions; similar to the disposition of his hero, Winston Churchill: "You have enemies? Good. That means you have stood up for something, sometime in your life."

Dad

David Gray

Dad has many admirable attributes that I would like to have the time to write about. These include but are definitely not limited to: perseverance in the face of adversity, the ability to turn an unfortunate accident into an amazing career path, the compulsion to help others both on an individual basis and on a global scale, the amazing ability to nod off under any circumstances, and the ability to live an incredibly full life in spite of some minor physical limitations that might hold a lesser person back. It's the last of these that I can most easily illustrate with the story of a little overseas trip that I tagged along on a couple of years back.

One of the main reasons that I joined Dad on this particular trip was that we were going to visit Normandy. Dad's dad served as a medic there during World War II, and neither of us had ever been to Normandy, although we have both been in France. We had one day in Normandy between middle of the night ferry rides to and from Portsmouth. We spent that day driving around Normandy, checking out the beaches and the American cemetery, and we spent some time in the museum at Ste. Mere Eglise. Our last stop was at a little town called Arromanches, where the one surviving Mulberry harbour is located. It was a really amazing feat of engineering for the time and still lots of fun to see. But the most amazing part was when Dad pulled out video that his dad had filmed during World War II and we were able to identify part of the setting as Arromanches. However, by far the most thought-provoking sight for me was the rows and rows of headstones set in geometrically precise rows and columns. Thanks be that there wasn't one more.

We also managed to visit Down House, the home of Charles Darwin. It is a beautiful mansion with amazing gardens. Dad and I spent a good part of the day in the museum. Dad's love for history, specifically the history of the science that he studied as a young man, was very evident here. We shared a delightful afternoon poking through the amazing

things that inspired Darwin to make his leap of reason and kick off a whole new branch of science.

To lighten things up, we decided to go to *Spamalot!*, which was playing in a little underground theatre in the West End of London. When I booked the tickets, I specified that we had someone in a wheelchair; however, that information appeared to have been lost, so there were some negotiations at the ticket counter. Eventually, they sent someone out to guide us around to an 'accessible' side door. Wooden ramps were pulled out, and it took much maneuvering to even get into the theatre. But the capper was when we got to the seating. We entered at the top of the seating area that immediately dropped into steep, narrow stairs with no apparent way for a wheelchair to get anywhere. To our surprise, they actually had it figured out. They pulled out a chair in the top row, which left room for a wheelchair, and then they put a small, wooden platform over the top couple of stairs, which allowed dad to carefully maneuver at the head of these steep stairs to get into his spot. Then they removed the platform, leaving him stranded in the face of Monty Python. Brave man. And the show was a hoot.

The other big event we had planned was to cheer on dad's colleague and former student Kerri Morgan, who was sprint-racing in the Athletics category at the Paralympics. We didn't actually have tickets, but through the magic of Dad's network, some of his other colleagues showed up at our hotel with the tickets on the day of the event. The journey to the Olympic stadium via tube was an adventure in itself. For the games, they made an effort to upgrade the accessibility of the tube system. Accessible stations were labeled with blue and white wheelchairs. Blue was fully accessible, and it appeared that white meant that, if you can negotiate the gap between the platform and the train in the older system, you could use it. Mike and I managed to manhandle Dad's chair over the gap, but Dad would have been stuck without help from two reasonably burly assistants.

There are so many thing that I could say about our Paralympics experience. It was profoundly moving on several levels. But one of the most important things for me was sitting next to Dad as he cheered on

Kerri. I treasure the memories of accompanying dad to hockey games, where he went crazy for 'his' team. To see him up his game, cheering on someone close to him, was priceless.

On top of the big events, we also made it to Highclere Castle, where Downton Abbey was filmed; visited some colleges in Oxford and had high tea at the Old Vicarage; visited a couple of museums; and generally wore ourselves out enjoying Merry Old England.

Was this a typical week in Dad's life? Maybe not, but he's traveled like this on a number of occasions. I believe that is a pretty amazing accomplishment and a stellar example of not letting little obstacles like wheelchairs, the gap in London's Underground, or insane ferry schedules get in the way of the important things in life. The eight-year-old inside me that spent Saturday afternoons at the hospital reading *The Hardy Boys* out loud to him and wondering what the future would hold couldn't be more proud of his dad, or more amazed at what he has accomplished

Co-conspirators

Polly Payne

Both of my siblings were away at college by the time I started the 7th grade. Around this time, my mother was both studying for her PhD and administering a school, enough work for a small army. This scenario occasionally left my dad and me home alone for dinner. My mother, very thoughtfully, would leave instructions for dinner that usually consisted of zapping leftovers in the microwave. Every so often, my dad and I would give each other a look, and within minutes be in the van and on the way to pick up a pizza. We had a plan: bury the pizza box and leftovers in the bottom of the garbage can outside so no one (my mother) would be the wiser. All was fine until, one night, the leftovers had to be hidden quickly. *Brilliant*, I thought, *I'll just throw the mess down the garbage disposal*. What would have been brilliant was to make sure the garbage disposal was working. Needless to say, it was not; the evidence was not gobbled up in its entirety, and the undercover pizza missions from there on were terminated.

#1 Fan

There are those who enjoy playing sports and those who live for sport. The latter is my dad and his youngest child, me. I have no memory of my dad playing hockey or skating or running or walking. His athletic days were memories he shared with me while driving me to and from soccer tryouts, soccer practices, soccer games, soccer tournaments, soccer camps, soccer dinners. From the passenger seat of the big blue van, I learned that, to be a great athlete, there was considerably more than skill involved. Determination, focus, drive, commitment, confidence, and to take responsibility for one's mistakes are all qualities that lift a good athlete to a great athlete. As a teenager I definitely wasn't always receptive to these lectures, especially after losing a game, but somehow my dad's words penetrated my thick skull.

One game in particular tested these skills: my first high school varsity soccer game. I was one of two freshmen who made the varsity team. I earned the spot of backup goalkeeper. At the first game of the season, I was primed and ready to keep the bench warm. During warm-ups, the starting goalkeeper let out a cry, and my heart proceeded to jump out of my throat. *She's just overreacting*, I thought. As it turns out, she wasn't. I had less than a minute to warm up and prepare to face one of the most brutal teams in our league. I dared not look into the stands, because I knew if anyone could possibly be more nervous than me, it was my dad. But knowing that he (and my mom) were supporting me gave me the courage to play the game with confidence. It was my first varsity soccer win and my first shutout. On the ride home that night, my dad talked about the importance of confidence, with a bit of pride in his voice; I listened to all he had to say.

Memories of My Dad

Elizabeth M. Gray

My childhood was shaped by my dad. My earliest memories are playing games with him. These games were so joyful for me to play with my children—possibly because of my fond memories of playing the same games with my Dad. I didn't realize until I had my own kids that I was probably only two years old when we were playing these games. One example is 'wake-up peek-a-boo': Dad would close his eyes and let me pull them open (gently) and say 'peek-a-boo'. In another game, Dad would puff up one cheek with air—I'd hit it and he'd move the air to puff up the other cheek. I'd hit that cheek and the game continued endlessly! But it wasn't just me . . . there was a tradition of bedtime stories and tickle fights with Dad and my brother David. Need I explain how much bonding and emotional attachment we developed in those early days?

I always loved watching my dad skate—skating with him was so much fun! When I was in first grade, we had a pond in our backyard that would freeze every winter. We would go down with our skates on and Dad had all kinds of fun ways to play while skating.

Going to the cottage at Nipigon was another tradition. We floated on inner-tubes in the freezing lake water, went on boat rides, and even tried to water-ski. I enjoyed the quiet (or not so quiet) family times, too, sitting on the porch swing while the adults were busy in the kitchen or playing cards. My brother and I would escape into the attic where we could explore and imagine all kinds of different lives we could lead, from speaking pretend French, to being undercover spies! We played Scrabble with my parents, and my Dad always let my mom win. He says she is the best, but he probably just doesn't want to suffer the results of beating her! At Nipigon, and everywhere we went, my Dad always knew interesting people. His cousin Johnny Bertsch was someone we visited with often. He had two children about our age, and we would go to the beach or play in their pool. We went to the inn at Nipigon and Dad seemed to always know someone there, too. I guess,

looking back on it, that my Dad probably just made friendly conversation with folks, but to me, it seemed like everyone was his friend.

I remember one night, after we moved to Minnesota and were living in a rented farm house down a one-way dirt road, I couldn't sleep and went downstairs to find my parents. My Dad was tickling my Mom until she laughed. My memories of my dad with my mom are mostly about conversations and laughter.

In those early days, the only time I ever saw him suffer was when he had scratched his eye and had to stay in bed with a cloth over his eye for a day or two. And then his father died, and I saw how he suffered through that.

Later, of course, I saw Dad suffer quite a bit as he had pain every day from the spinal cord injury. I remember very clearly the alternating extremes of emotion of that day—nervous "everything's going to be okay" and forced laughter to desperate crying and not knowing what will come next. I stood by my mom as she spoke to my dad lying on the ground half in the ditch. The rescue teams came and took him away. Then, I remember nothing except a couple visits to the hospital.

As I grew, Dad was a coach, a listener and a storyteller. From his wheelchair, he coached me in the long jump, ice-skating, running the 200 meter, and everything else. As I grew older, he coached me through the emotional ups and downs of adolescence. During quiet afternoons together in his study, he listened to me try to figure out the world. I would help organize files, stamp envelopes, move papers around . . . and Dad would let me talk about whatever I was thinking or experiencing. Dad had a way of not interrupting or correcting me. This made me feel safe and I'm sure I said some pretty ridiculous things! Throughout my adolescence, my Dad never doubted me and he supported me through thick and thin. During my high school years, Dad would often come home with funny stories about work. Again, he turned stress into humor and Mom and all of us would laugh at his descriptions of the events at the office.

Dad's stories of his parents, his friends at college, and his political battles for the ADA in Washington all became part of my understanding

and part of me as well. For example, hearing his story about being out on his college friend's yacht and everyone drinking too much wine or the one about how his dad drove crazy-fast and made their stomachs flip, to his mom's dismay, helped me be a bit daring and reach for fun. His stories about trying to work with people in government to change the law helped me understand the importance of good allies and good friends.

I know it wasn't easy for Dad—having to find someone to help him so my mom didn't have to do everything, navigating the world from a wheelchair, and having to overcome everyone's preconceptions . . . but his personality is so strong and he is so strong minded that he made this seem much easier than I'm sure it was. When I think of my dad, I always remember the silly games that we played when I was very little. The ones I mentioned first.

That's my dad.

Love, Beth

Dr. David B. Gray— Some Memories from Undergraduate days at Lawrence University

Henry M. Kaiser

As a freshman at Lawrence College, Dave Gray came into my life as a person who apparently decided I was an easy target for humiliating zingers. After all, I was rich and, therefore, "stuck up," wasn't I? This might have bothered me, but I was too busy falling in love with my future wife and thoroughly enjoying my freshman fall, and there were others who noticed I wasn't choking on any silver spoon that they could see. Soon, we became new members of the Brotherhood at the Delta Tau Delta fraternity. Things were cordial.

Then, his father had a heart attack, and I offered to drive Dave to the Green Bay airport for a flight home. I was happy to help, but I hereby confess that my real motivation was a rare opportunity to drive my new Chevy convertible . . . rare because cars were not allowed for students except for travel during semester break or at the beginning and end of the school year. During that car ride, a strange alchemy took place. Dave saw me in a new light, and I saw him as a man stripped naked by emotional turmoil. The games and posturing were over; we were friends at the end of that ride. Thanks, Dave!

Things progressed. He and Margy decided in the spring of our senior year, just as the Vietnam draft was heating up, that it would be very funny if the "Milwaukee Draft Board" called demanding that I report for a physical ***immediately***. The phone rang, and my comfy visions of starting Stanford Graduate School of Business in the fall turned into visions of me marching through rice paddies as a private first class. What turned out to be Margy's voice was so believable I called my father, who called both California state senators and was preparing to call an advisor to President Johnson when I overheard uncontrolled belly laughing. Fortunately, they decided to not let things go further. A lot of other people thought this was very funny . . . even my future wife! She was in on it! Thanks, Dave!

Then we graduated, and Dave was one of five joining me in the Pacific Northwest for a stag cruise on first, one and then, two of my father's 45-foot pleasure boats. Imagine six recent grads turned loose on the beautiful and calm inland Canadian waters, free to roam wherever for two weeks, on boats well stocked with everything—including two cases of Piper-Heidsieck pink champagne. After a champagne-cork-popping contest (two tries per contestant) and a two-day hangover, we returned in triumph to my parents' dock, and there they were, standing to welcome the returning explorers home. Dave had prepared an arrival celebration of his own: all twelve empty bottles lined up and highly visible by a window in the galley, surrounded by their companions: the entire collection of empty bottles of scotch, rum, and other "dead soldiers." This did not go over well with my father. We had consumed more value in alcohol (not approved) than both vessels had consumed in gas (approved) in the past two weeks. At current energy prices, I estimate that the expense of these two consumables would have been about even. We laughed often, later, at the disdainful expression on my parents' faces. Dave and the others soon went home, smacking their lips gleefully, while I remained behind for some stern lectures about responsibility and our lack thereof. Thanks, Dave!

Mother and Dad nearly choked when I announced, shortly thereafter, that I wanted Dave, not my older brother, to be the best man at my wedding. Furthermore, instead of a stag party the night before the wedding, I wanted, in compliance with what I thought was a harmless and fun request from Dave, to have Dad join my "crew" in a last card game called "Shreck." Throughout our college years, the "crew," Dave in particular, had drooled about the possibility of getting the chairman of a Fortune 500 company into the penny ante card game we played in the Delt House. Dad did his duty, and obligingly lost an acceptable amount of pocket change to inspire suitable gloating and a memory we all treasure. My mother didn't often see my father let his hair down and just be one of the guys. Thanks, Dave!

My opportunity to support Dave on his wedding day came on one of those cold, gray, windy, and wet March days in Minnesota where

spring gets lost, at a time when I had planned to be in Palo Alto studying for an accounting final. It wasn't the joyous occasion I thought it should be. I, therefore, chose to toast with a poem that began with the phrase, "Who walks with beauty has no need of fear," and proceeded to celebrate what I thought were two wonderful people who were indeed walking in beauty. It was a nice opportunity for me to suggest, in a poetically disguised passive-aggressive way, that I thought people should be focusing on Dave and Margy's happiness and ***Snap Out of It!*** Thanks, Dave!

Then, shortly after the accident, came the day I went to the Mayo Clinic in Rochester to see my friend who was in pain. I was in pain too; one of my business deals was causing great stress. My stress went away when I crawled under the bed so I could look up into Dave's face as he lay, somehow suspended, face down, his head clasped in a brace. His tears dropped from his face onto mine, and I didn't move. That, for me, was a bonding moment. Thanks, Dave!

Since then, the visits have been infrequent, but the loyalty between us has been steadfast. After hearing yet another wail from me about my chronic financial difficulties, he announced that, if necessary, he would finance my travel to our 50th reunion. Thanks, Dave, but you're off the hook; I just got a job. Maybe someday I'll be as successful as you have been.

Undergraduate days at Lawrence University

John Ishikawa

Dave,
You are always in my thoughts and prayers—no less tonight, so:
To "Curl," better known as "DB" and just "Dave" to me, like my son.

On a daily basis:

1. I wake up each morning to greet my golden retriever, and it reminds me of The General, the first time I encountered a golden retriever at the Gray household in East Grand Rapid's Michigan in 1964. I still remember hearing of General's passing in the lake and thinking how sad for a great swimmer. My dogs have the instinct but don't get to go into the water.
2. I still have Marion Gray's obituary on my hard drive and big brother Fred's *That's Outrageous* book, which I haven't completely read, on my shelf. I noticed my bookmark on page 35, "Hair Loss."

I can remember how DB would rub his head in our Delt room and say how much hair was on the book he was studying. Years later, in my early 30s when I did the same, I would think of Dave. Now, I'm as bald as he is, but I always think of him when I no longer have hair falling on what I'm reading.

1. Your dad and mom are special people to many, including me and, while I've never met Brother Fred, I felt I knew him like Pricilla and Bill, as if he was there when I was at the home.

Some memorable experiences and highlights that I cherish, which others may elaborate on:

1. Orcas Island cruise with Henry. (You got cited for the bottles on the Sue or Calliope's captain's bridge.) Your bridge playing also left something to be desired.
2. Henry and Peggy's wedding in La Crosse. (I still remember the

tuxedo shoes that you kept wearing long after the wedding, LQB's Wild Turkey, and a nice memory for me.)

1. New York World's Fair (I still have a bottle of Bravura aftershave that we replaced upon returning to East Grand Rapids. (I lost everything on Forty-Fourth Street—I still think of it when I visit NYC—when we tried to save money by parking on the street.)

2. Walking the Mackinac Bridge: I think back of how that seemed like a tough endeavor for us 20-year-olds, when now that would be a 20-minute 3K run.

3. My 1986 visit to Washington, D.C., you picking me up at the Four Seasons in Georgetown and having dinner at your home. That took me so far from my last 1977 visit with you at the Mayo Clinic in Rochester, MN. Memory's not so good anymore. I was so happy about how well you were doing.

4. CR4 (Chris Isely) and I being godfathers (at least designees) for Beth.

5. Any time I hear about hockey player athleticism and bad tempers, I say to myself, "I know a hockey player like that."

6. It's the spirit that counts, and you have it.

Dave Gray

Laurence Wilson
Friday, February 20, 2015

I always assumed Dave's time on this planet would end sooner than that of most of our classmates—almost all of whom who had enjoyed excellent health over the years—but interestingly enough that supposition didn't turn out to be the case. Last year, a number of early deaths were reported of classmates and younger fraternity brothers from Lawrence, none of whom had ever faced even a handful of Dave's medical challenges or hazards in their own lives. I mention the point because while it is true that Dave died earlier than most of his peers, he also lived a full and richly productive life.

Most of Dave's eulogies will likely focus on his many external achievements during his life but that never was what I found most remarkable about him so I'll leave those accolades and reminiscences to others. My primary recollection was his relationships with friends and family.

Pre-injury, your Father was remarkably athletic and he brought aggressiveness, grace and strength to all of his sports and activities. But he wasn't remotely like most of the so-called "jocks" at college. First and foremost, he was *smart*. Most athletes definitely were *not* smart. He was extroverted, friendly, constantly upbeat and usually smiling. Most importantly—and this is where his family values all came together—he was ever passionate about ideas and knowledge—because he wanted to better understand the world in which we all lived so he could be more productive in it; he was profoundly and deeply connected to his own family during both good and bad times, but equally connected at a profound level with his friends and their families as if all of us were an extended clan of sorts; plus, no one I knew during college was more persevering in completing things he had started or was more staunchly loyal to his own friends regardless of inconvenience to himself. Those values of course are the extraordinary values Dave had created earlier

in life and which he already possessed long before his college friends even met him.

This remarkable combination of talents and values, of course, would have caused Dave to have been highly successful along any path his life might have taken him. He was more "together" and further along on the trajectory of starting to have a brilliant family and career for himself than almost any of his close friends before he had his accident. That his catastrophe occurred to a friend who was putting things together in life, so early, and so much better than most the rest of us, made that event even that much more shocking to his friends.

Most of my classmates would simply have thrown in the towel had a similar catastrophe befallen one of them—myself probably included. While Dave's physical body may have been smashed up in the accident, nothing in his core talents or character was diminished in the slightest. He still was smart—and he continued to enhance that talent his whole life thereafter. His passion about ideas and knowledge continued unabated and—if anything—increased thereafter as well His extroversion returned with full strength and power once he got past the initial shock—albeit one now could see that deeper rivers—such as generosity of spirit, integrity, compassion and dignity had been inside Dave all along. The post-accident Dave was not just an extroverted and friendly person; rather, he was an extroverted and friendly person of real *substance*. The substance had always been there but it wasn't as visible pre-acccident.

Most importantly, however, he continued to be closely and deeply connected with his family and friends. Sure, he bragged about family triumphs [rarely his own] when, if and as they came along, but as commonly as not, when and if something was going wrong in the life of someone in his orbit, the first person to reach out in an effort to try and help that person would be Dave. This was true even at times when Dave's immediately pressing needs were so great that in fact there wasn't much—if anything—left over to extend to someone else who had immediate needs as well. All of that was remarkable.

These are the core recollections that will ever cause Dave to stand out

as a great friend in my life—even among other great friends—and an utterly unforgettable and irreplaceable human being of highest possible quality.

David Bertsch Gray—I treasure the times we had together—your friendship—your values—your family. I'm deeply proud of the brilliant life you put together for yourself, for your family and for the world, all in the shadow of great adversity.

I'll miss you and I bless that fortuitious day when our life paths crossed, we connected with one another and became relevant to one another thereafter in one another's lives.

God Bless You and your family.

David B. Gray, Ph.D—

Memories of 50+ Years of Friendship!
Steven E. Landfried—Edgerton, Wisconsin

[Note: I was honored when Dave invited me to write something for an upcoming memoir about his life. Deeply saddened by his untimely passing on February 12, 2015, I am nonetheless pleased that he could read this tribute one week earlier and to see photos of great times we'd spent together over the years.]

Some lives are blessed by a rare individual whose energy, resourcefulness, courage, smile, and genuine friendship provide both comfort and inspiration. Dave Gray has been such a person for me, our Delta Tau Delta fraternity brothers and countless others.

Our paths first crossed in mid-September 1962 during freshman orientation at Lawrence College. It was not entirely by chance because the 5-6 freshmen who showed up a week early for cross country practice in Appleton, Wisconsin soon heard about a fast Michigan kid reputed to have run a scorching half mile in slightly over two minutes. It's unlikely that anyone made a serious effort to recruit the graduate of East Grand Rapids H.S. for cross country, but that we certainly should have done so!

The good news was that four of us—Henry Kaiser, Larry Wilson, team captain Bill Holzworth, and yours truly—would become Dave's fraternity brothers when fraternity rush ended in January, 1963. Little did we know that the process would be the genesis of life-long friendships!

The Dave Gray that I got to know during our formative four years at Lawrence quickly distinguished himself. People gravitated to him for many reasons, but things that stood out for me were his enthusiasm, broad smile, love of life, heart-warming laugh, and ability to be serious when appropriate. The fact that he was a fellow Michigander rooting for the Detroit Tigers, Lions and Red Wings predictably created recurrent opportunities for camaraderie.

All that aside, it was our joining the Delta Tau Delta fraternity that provided the foundation and glue for our friendship of 50+ years and those Dave has cultivated over the years with Henry Kaiser, Chris Isely, John Ishikawa, and Larry Wilson.

The period 1962–66 was very special time for Lawrence and our country. Indeed those years offered a social and historical context amenable to college kids looking for more than superficial friendships. Among others, they included the Cuban missile crisis; the rise of the civil rights movement and the folk and rock music that accompanied it; the assassination of President Kennedy; a mandatory Freshman Studies course; the college's 1963 merger with Milwaukee's Downer Women's College to form Lawrence University; the evolving quagmire of Vietnam; and state laws that allowed 18 year olds in Wisconsin to drink beer. They were years that provided shared experiences that nurtured friendships and traits of character that would help sustain Dave and friends through life's challenges.

What do I remember most about Dave Gray from those days? That the guy known as "DG" or "Curl" was actively engaged in living—and contributing—to campus life. I particularly recall a variety of seemingly mundane experiences that added texture to our shared experience: eating meals at the Delt House almost every day for three years; playing cards before or after dinner; kidding Dave about his sleeping on the "warm porch" of the fraternity house (those of us on the "cold porch" left the windows open); enjoying Saturday night fraternity/sorority parties; hearing tales of Dave's exploits as the captain of the Lawrence hockey team; basking in the incredible diversity of interests, talents, intelligence, and backgrounds of our Delt brothers; and coping with the stresses of being the first group at LU required to pass comprehensive exams.

I also vividly remember Dave dating a bright, beautiful red-head from Minnesota named Margaret Esterline who later became his immensely talented and devoted wife. I also recall Dave frequently mentioning his family of origin: father, physician Dr. Fred Gray (who delivered the only daughter of future President Gerald Ford), civic-minded mother Marian, and older brother Fred (a writer/editor for the Reuter's News Service). Clearly, they were tough acts to follow.

Dave's friendships with Henry Kaiser, John Ishikawa, Chris Isely, Larry Wilson and meant a great deal to him. He spoke with pride about their attending his wedding to Margy in Faribault, MN; being the

best man in Henry Kaiser's marriage to Peggy Fuller in LaCrosse, WI; and a memorable journey he and several fraternity brothers took to the Kaiser estate on Orcas Island, Washington. I particularly recall Dave's periodically recounting the thrill of being invited to go for the last 100+ mph "spin" of the famous pink unlimited hydroplane Hawaii Kai before it was purposely scuttled off the San Juan Islands.

The years after our graduation from Lawrence found us taking different paths. . . . Dave to pursue a master's degree in psychology at Western Michigan University and me to teach high school social studies in Wisconsin.

The summer of 1969 brought us together again when a drive to the East Coast provided an opportunity to stop in Greensburg, Pennsylvania where Dave was working at Seaton Hill College and Margy was focused on raising two kids: young Dave, Jr. and Elizabeth. As a teacher, I took great delight in learning of Dave's experiences leading courses in introductory and experimental psychology and conducting various forms of research.

The 1970's found us working on doctorate degrees . . . Dave at the University of Minnesota and me at the University of Wisconsin-Madison. Predictably those experiences provided considerable fodder for conversation when we reunited In 1972 at their home near Rochester, Minnesota.

Topics of conversation changed abruptly in 1975 after Dave's fall from a house roof left him with a broken spine. Knowing that his youngest daughter Polly had recently joined the family, the sight of Dave in confined by a "halo" at the Mayo Clinic was particularly sobering. However, his resolve to deal with the life-changing situation was both humbling and inspiring!

The years passed and we continued to stay in touch. The '80s and '90s found us periodically meeting in the D.C. area where Dave had various jobs for the National Institute of Health, the Department of Education, and again NIH. By then Margy had gotten her Ph.D. and was the principal of a private school for learning disabled children. Predictably our mutual interests in education spawned fascinating dialogue as we watched their three talented kids grow.

As the 21st century dawned, recurrent phone conversations and holiday greetings helped us maintain contact. By then Dave had become internationally known for his work at Washington University as an advocate for resources, laws and services helpful to those with various disabilities. Our interactions became more direct in 2005 when I started coming to St. Louis annually for a major character education conference.

Those visits afforded recurrent opportunities to learn about new equipment and progressive strategies Dave was helping develop for those with mobility challenges. It was joy to see him demonstrate use of a high tech i-Bot wheel chair that made it possible for him to climb stairs and participate in eye-to-eye conversations. The progress seen over the next 4–5 years always left me filled with admiration for the vision and determination of my long-time friend.

In addition, I especially remember accompanying Dave to a ferocious wheelchair rugby match at a nearby gym, sharing meals at the famous Blueberry Hill Restaurant in nearby Delmar Loop, watching July 4th fireworks, and going to Busch Stadium to see Cardinals games (including the second game of the 2006 World Series with our Detroit Tigers). Each time I left their beautiful brick home with an appreciation for Dave's energy and respect and an appreciation for how lucky Dave was to have his devoted wife Margy by his side through thick and thin for over 40 years.

Dave's hard work and many contributions to the lives of others have not gone unnoticed. For his fraternity brothers it was truly heart-warming when our alma mater awarded him with the highest honor it can give alumni: the Lucia Russell Briggs Distinguished Achievement Award. It was a thrill trumped two hours later when 14 "brothers" from around the country met at the Delt House to acknowledge his achievements and reaffirm treasured friendships.

Time marches on and "retirement" beckons. Dave's life has been journey that truly merits the book being produced about this most remarkable man. Much more could and will be said, but I can only add my best wishes and a heartfelt: "Bravo, Dave, and Bravo!"

David Gray . . . aka Curly

A Snapshot in Time [High school]
Craig A. Miller

Curly and I became good friends in high school. We happened to be on the same track and football teams. Consequently, we spent many hours "pumping iron" in my basement to beef up, not for football, but for the girls!

The fondest memories I have of Curly were related to his wardrobe and his car. His wardrobe was controlled by "Mother Curly." This consisted of three pairs of pants, three shirts, and unmatched socks. Each morning, she would display which clothes he was to wear for the day. Our mutual friend, Steve Bellaire, who specialized in being well-dressed with clothes from The Bagpiper, was on his wardrobe constantly. Despite our efforts, Curly never became a fashion stud!

The car, a very used Jaguar Coupe, as I recall, comes in second in the Curly Saga. This car was equipped with modern air-conditioning, not mechanically, but from numerous rust holes throughout. We did our best to help him recondition this beast. Over time, there were probably more than 100 pounds of body filler applied to that vehicle. We spent many hours on this project alone! Our time was well spent, with secret forays into Mother Curly's kitchen to find the hidden stash of cookies. Any success usually required diversion . . . we were quite good at it!

Curly loves fast cars, too. After Curly's accident, Curly and Margy stopped to see us in upper Michigan. He had heard all about "Miller's" new Porsche 928 and expressed a great desire to "take a ride"! So Margy, Nancy, and I agreed to somehow get him in that car, not even thinking about how we would ever get him out. The result was the beginning of one of the greatest car trips we ever had! Both Margy and Nancy laughed as we drove away with smirks on our faces!

Our friendship has lasted all these years, centering on numerous Curly stories! It is truly a unique friendship.

Dr. David Gray: Personal Reflections

[NIH period]

Laurance Johnston, PhD

Old wisdom states that to move men to action, you have to move their hearts. To me, David Gray was a leader with such capability, putting the much needed heart and soul back into disability research policy. Although a rigorous scientist himself, David believed people were foremost and, as such, the scientific process should be subservient to their needs, not the other way around. Although this may seem self-evident in 2015, this was often not the case when David joined the government over 30 years ago. He felt research priorities should be based on the true needs of individuals with disabilities, not just what able-bodied scientists and medical professionals assumed were the priorities. As a result of his convictions, many different, much needed research areas started being emphasized.

I first met David in 1981 when I joined NIH's National Institute of Child Health and Human Development (NICHD). He had been at the Institute for a relatively short period of time through an interagency personal agreement (IPA) with the State of Minnesota. His office was so tiny he could barely maneuver his power wheelchair, tread marks being left behind on the walls when he backed up. Just getting into the building required care because the wheelchair ramp had a dangerously steep slope. Often, when David went down it, images from the *Wide World of Sports's* infamous "agony of defeat" ski jump scene flashed into my mind as I anticipated David going airborne.

Although much of David's government career was characterized by the development of enlightened disability policy at the highest level, it didn't start that way. During his initial IPA appointment, his NICHD supervisors really didn't know what this exceedingly capable individual with a severe physical disability could handle As such, they essentially assigned him a make-work project, specifically, reviewing and preparing a report on NICHD-sponsored Down syndrome research. It became the never ending project that only someone who has worked

in government can truly appreciate. Repeatedly, his report went up the Institute chain of command for review, came back down with suggested changes, was modified in response, and once again was sent forward for feedback—over and over again, ad nauseam. Although his appointment to his permanent position allowed him to eventually escape from this bureaucratic black hole, I suspect when David is knocking on heaven's pearly gates, he will be sent back to finish his Down syndrome report, now festering in some filing cabinet in the bowels ofNICHD.

Perhaps due to our Minnesota connections, Dave and I became good friends, and it was through this friendship that I acquired a true appreciation for the multidimensional issues surrounding spinal cord injury, a disorder that became a focus of much of my career. In addition to becoming my mentor, we became partners in crime, so to speak, a fifth column questioning sacrosanct, organizational dogma and thinking. Joined by other NICHD staffers, we would routinely meet for lunch in his now-much-larger office. In addition to overall socializing, this collegial, convivial setting often catalyzed stimulating, productive conversations and fostered relationships that subtly influenced policy development on many levels. Demonstrating that true power comes from the soul energy within and is unaffected by physical disability, David became the group's ringleader, idea man, and force, creating ripples of change and new thought that spread throughout the organization.

Nevertheless, these loftier interactions were consistently counterbalanced by the humor, hijinks, and practical jokes needed to offset the Chinese-drip-torture tedium and stress of government work. I often chuckle when I recall the numerous slice-of-life experiences dealing with David.

For example, David often came up with some extraordinarily politically incorrect disability humor, which only he could get away with but was not especially appreciated by our straight-laced supervisors. For example, David would ask, "What do you call a quad hanging on a wall?" Answer: Art. Or, "What do you call a quad lying on a door stoop?" Answer: Matt.

Then there was the time that we were attending a conference focused on reproductive issues in women with disabilities. The Director of the National Institute of Disability and Rehabilitation Research (NIDRR), a woman, told the audience that David was so sensitive to women's issues that they had made him an honorary woman. Although stated in great sincerity, no man wants to be known as an honorary woman, especially in front of his male colleagues. It's not the sort of commendation you highlight on your resume.

Whenever we went someplace, he had to drive his accessible van. For years, I thought he was a very evolved driver with a higher level of consciousness because if someone cut him off, he'd simply wave in response. I finally realized, however, that he wasn't waving, but giving the other driver the "quad" finger, which resembled a wave due to a lack of finger control but with vastly different energy behind it.

In yet another example, David once challenged me to an arm wrestling contest in front of colleagues, clearly a situation with no up-side for me. As an able-bodied individual, losing to a quad wouldn't look good, yet little would be gained by beating him. Although virtually having no grip, in fact, David had considerable arm strength for a very narrow range of movement, but once past this range, he had nothing. Perhaps a copout decision, I chose to resolve this dilemma by arm wrestling him to a draw.

Finally, David and I were constantly pulling pranks on each other, taking turns being the victim. Because it reached a level where we started questioning the reality of situations, we periodically had to call truces, fragile arrangements that lasted only until one of us got inspired again. The implications of the pranks started dangerously escalating; for example, David even returned a nonexistent phone call to the White House after he had applied to be director of NIDRR. Chaos theory claims that the flap of a butterfly's wings in the Sahara can create an air disturbance, triggering a chain of events that eventually results in a hurricane in the Caribbean. Although David had stellar qualifications and political connections, I've always wondered whether my seemingly innocuous message that the White House had called was the butterfly wing flap that catalyzed his eventual presidential appointment.

Unfortunately, his NIDRR tenure was during a period in which Department of Education agencies faced draconian hiring freezes. Although he had a big, multimillion dollar program budget, he lacked the staff to adequately manage it. I joked that he was the only Institute director who could sit his entire staff around his office conference table. As such, he eventually returned to NICHD, a move that ultimately greatly benefitted NICHD.

Reflecting that every challenge bears the seeds of future opportunity, with his now greatly expanded policy experience, he was able to spearhead the development of the congressionally mandated National Center for Medical Rehabilitation Research (NCMRR). Although getting credit for your accomplishments in the government is always questionable at best, David was clearly the force behind the creation of this center; it was his baby. Once again, however, he lacked the staff needed to get the center up and running. Fortunately, now a division director, I had sufficient staff to help him, demonstrating how friendship can surmount many obstacles. Our collaboration was quite rewarding when, after a difficult gestation, NIH gave birth to NCMRR, providing an important, much needed emphasis on rehabilitation research.

Soon after, our NIH collaborations wound down. I departed from NIH, becoming Director of the Paralyzed Veterans of America's Spinal Cord Research and Education Foundations, and a few years later, David moved on to Washington University, where he channeled his passion for disability research and his extensive policy experience into programs at a more hands-on, university level. We maintained our friendship over the years, periodically reveling in our NIH glory days. David even became my best man at my 2007 wedding. Overall, his friendship, insights, and passion have had a profound and lasting influence on my career in all of its permutations.

Dave Gray Day [pre and post SCI]

Mike Fronk

The story of David Gray is, in perhaps some ways, two stories. Or you can view it as Parts One and Two of the same narrative.

My wife, Nita, grew up in Faribault, Minnesota, with Margy Esterline. Margy was to meet Dave while they both were attending Lawrence University, and they soon married.

I first met Dave and Margy while he was working on a doctoral degree at the Minneapolis campus of the University of Minnesota. The four of us seemed to immediately hit it off. Margy was bright and attractive, with an unfailingly sunny disposition. Dave was equally smart and good looking, with the physical prowess and leadership skills that had made him captain of Lawrence's hockey team. Dave lacked few, if any, of the qualities we attribute to the stereotypical "all American" male. There seemed to be only success and good fortune on the horizon for the Grays.

Then, while Dave was still only in his early 30s, the event occurred that would alter the course of both Dave and Margy's lives. Dave slipped from the roof of the home they were building in Byron, a town located near Rochester, Minnesota, where Dave was the southeastern regional director of one of the state's medical centers. He fell from the roof one story to the deck below, and then dropped another story to ground level. Instantly, he had lost his considerable athletic abilities and began a difficult physical journey as a quadriplegic.

Nita and I were profoundly shocked and saddened by the news of Dave's accident. In our eyes, the specter of a diminished and tragic future for Dave appeared. But, of course, we were only about to witness the unveiling of a more transformative David Gray—the only David Gray many of you who are reading this memoir have known.

For us, perhaps the opening chapter of the second part of Dave's narrative took place on "Dave Gray Day." As Dave was recovering from his injuries, the citizens of Byron, Minnesota, had gotten together to raise funds for Dave's medical costs and, perhaps more importantly, to acknowledge the beginning of Dave's new challenges and opportunities.

It was a beautiful, cloudless day, and it appeared that virtually the entire population of Byron had turned out to honor Dave. It was almost overwhelming to arrive in Byron and find the town's streets filled with a joyful crowd clearly embracing a heartfelt empathy for the young man they surrounded.

Dave, in his wheelchair, greeted them one by one, with the same extroverted confidence that had always characterized him. But what we were seeing was also much more complicated than that. Some of Dave's other qualities now appeared front and center, particularly a sensitivity to and compassion for the feelings of others.

Our two young children had never seen Dave with his disability, and initially they found it disconcerting. He was immediately aware of this and responded by taking them on his wheelchair, using it almost as a go-kart, and giving them a laughter-filled tour of the surroundings. This was to become vintage Dave, Act II.

Who might blame Dave if he had become self-pitying, angry at his fate, or miserably self-absorbed? No one, I suspect. But we now were coming to appreciate that Dave was so much more than the already admirable person we thought we knew.

In looking back, "Dave Gray Day" was perhaps, in some ways, the coming out party of a young man who had looked deeply within himself and begun to construct a personal vision of even greater achievement than he might ever have previously imagined.

We also saw, as Nita and I learned in living out our own lives, that no such a vision is ever actualized alone. Without Margy, Dave's extraordinary level of personal and professional accomplishment might arguably never have been achieved. With a passion and laser-like focus, they pulled together to build the most rewarding family life, in all dimensions, that was possible.

Ultimately, one of the most treasured gifts they gave to us was the value of having a forgiving and nonjudgmental view of their own personal, as well as their children's, strengths and weaknesses. Dave and Margy have lived a life that has often put a concern for the happiness of others above their own personal struggles.

My friend Dave Gray—Neighborhood Friends 1983–1995

Brian Healey

A new ramp into the house down the street announced that we would have a new neighbor. And, to be honest, the first thing you notice when you meet Dave Gray is that he is in a souped-up wheelchair. But that first impression quickly retreats when he greets you with his broad smile, Midwestern friendliness, infectious laugh, and sense of humor. Here was a guy in love with life. He quickly became a close friend after moving to Everett Street in Kensington, Maryland. The fact that he was surrounded by a beautiful, brilliant wife and three great kids made it even easier. They were simply fun to be around

Dave introduced me to the world of people with disabilities. He was passionate about his work at NIH. He wanted to award grants for projects that would help people enjoy the world more—whether it was mobility with new chairs or simple things like washing, brushing teeth, and eating. He would constantly talk about what he was working on. And when he talked, the possibilities came alive. "It's the little things," he'd say, that can make so much difference to people. The height of the doorknob or elevator buttons, access ramps and curb ramps, new ways to help people reach things. We once spoke about the angle of wheelchair backs and the cushioning of the seats.

A sense of his intellectual passion was reinforced simply by watching Dave. He would strap on his arm and hand braces to eat or drink or to work on his computer. He made light of it, but it was not easy! One day, he showed me his bedroom and bathroom. I asked, "How do you make this all work for you?" With a smile, he gestured over to Margy, his wife. She returned the smile. This was a team. But you also knew without asking, this was not easy.

Dave also introduced me to his passion for hockey. He convinced me to accompany him in his specially adapted van. He would lower the back gate, power himself up, strap himself in, and off we would go at a

brisk pace to watch the Washington Capitals. We would sit in a special section for wheelchairs, which had the best view in the house. "Once you sit with 'the Crips,'" he once laughed, "you'll never want to sit anyplace else." He was right. But sitting next to Dave made it special—even when he screamed at the refs or the other team.

It may sound naïve, but most of the time, Dave's disability was not at the front of my brain. It was a part of his life, but it didn't define him. Then one night, we drove to the Capitol Center for a hockey game. We parked, as usual, and then Dave let out an exasperated sigh. Maybe a little curse. "We need to go back home," he said. "My plumbing has come undone." Without knowing the specifics, I understood. As we drove back home, he tried again and again to apologize. But I wouldn't let him. He was my friend, and that's what mattered. But, again, it underlined that this was a man, a family, dealing with challenges every day—but always moving forward. I admired him even more that night.

Dave also introduced me to the world of computers. I am a journalist and thought using anything other than a typewriter was sacrilegious. Dave was an early computer geek. He would spend hours on his Mac working in his home office, often late into the night. I'd see him working when I drove up the block to my house. So I got interested. My computers were in shambles. But Dave would patiently help, and when I messed up, he would send his son, David, up to our house to sort things out. The Gray family helped ease my transition into the digital age. Without them I'd still be banging out my work on a Royal typewriter.

Dave is a detail guy. He introduced me to the excitement and challenge of buying a new van and having it converted to meet his needs. He approached it with the intensity of Dale Earnhardt Jr. working on a new NASCAR racecar. We went over the details and the requirements, and Dave's detail-oriented approach almost made it interesting to me. In fact, he did make it interesting to me, and when the new van arrived, we celebrated. And when it went back to the dealer to fix some problems, we celebrated again when it returned. And when it went back again and again, we always celebrated when it returned until it was finally perfect.

As I mentioned, Dave has a very serious side. He became an advocate for the passage of the Americans with Disabilities Act. Whether at NIH or the Department of Education's National Institute of Disability and Rehabilitation Research, he went to endless meetings, wrote papers, and probably bent the ear of assorted congressional types. "Healy, this will make history." It did. When it passed in 1990, he was overjoyed. I remember him constantly praising his friend Justin Dart for his work in the passage of the bill. But I also knew that Dave had played an important part as well.

You see, Dave never toots his own horn. He never pats himself on the back. In Washington, D.C., I was a producer at CBS News. I ran into politicians and officials and bureaucrats every day. Self-importance and self-promotion consume a lot of the oxygen in this town. But not for Dave! He did extremely important work and was a major figure in helping people with disabilities, but you'd never know it from him.

He also didn't get angry very often—outside of a hockey game. I'm Irish-American. I am, let us say, explosive. Not Dave. He could get frustrated with the grinding cogs of the Federal Government, exasperated by what he felt was the ineptness of some. But he kept most of his disappointments to himself. He once was in line for a promotion to a higher position in government. It didn't happen. I found out about it only when I asked. Dave did not wallow in his setbacks. Classy guy!

We grew to love his entire family. Margy was the Director at the Chelsea School, where children with learning disabilities grew under her guidance. Her dedication as well as her sense of humor drew everyone to her. Young Dave was fun and a genius without pretension. The red-haired Elizabeth sat for us, told great funny stories, and played the classical clarinet. Polly was the youngest—played soccer, big smile, fun. We loved to spend time with Dave's mom when she visited; she was smart and funny and energetic. Have you noticed how often I use the word "fun" in talking about them all?

Then the day came when Dave and Margy and the kids (who were at college, or at least out the door) announced they were leaving. Sad day for us. Good day for St. Louis. So, as the departure date grew close, we

were asked to come to their house for a farewell party. Now, you must remember, we had many dinners at the Gray house, many celebrations for birthdays and graduations and just hanging out. While there was always great company and conversation, there was never any wine or spirits. The Grays were good Methodists. Or was it Presbyterians? I forget. But no booze.

But when we walked into this farewell dinner, there were bottles of wine on the table. And there was Dave with a big smile. "Healy, you've drunk enough Shasta Orange Drink and Sprite in this house. Time for a little wine!"

We have not lost touch with the Grays. I visited them in St. Louis, and Dave showed off his elaborate train set which never had a full showing back in Kensington. We get together when they come to Washington, D.C. to attend conferences and other important meetings. It got a little testy when my Boston Red Sox played their St. Louis Cardinals in the World Series in 2004 and 2013. And we get photographs of Dave and Margy in the U.K. and other places as they dart around the world for work and pleasure. Nothing slows down the Grays.

I was proud to be Dave Grays's neighbor. I will always treasure being his friend.

Dave Gray—My Friend

Jan O'Neil

By some coincidence, Dave was the first person I met when I arrived in Appleton, WI, to start my freshman year in college at Lawrence University in 1962. Our families had stayed at the same hotel the night before registration. As we were checking out of the hotel, our dads started chatting and found out their shared occupation—OB-GYNs. I now had someone to say 'hi' to on the small campus where paths often cross. Perhaps this initial meeting foreshadowed other chance encounters in our lives. Lawrence was a small college, and Dave and I had many mutual friends and many shared experiences. Margaret was my assigned "freshman friend"—part of a little sister program to help new freshman assimilate.

The most amazing off-campus "happening" took place in Europe in August of 1965. Another Lawrence student, Betsy Wrobke, and I were Spanish majors and studied in Spain the summer before our senior year. After our studies, we had Eurail passes and traveled to many European cities, hopping on and off trains and venturing forth. In Paris, we were walking along the Seine River, lined by park benches, and we noticed a familiar face of a guy sitting on a bench. "Hey, Dave, is that you? Hey, Dave . . ." It was Dave! The three of us laughed and chatted about our summers traveling, our adventures, and other serendipities. Then, Dave ventured the big question, "You wouldn't be willing to lend me a few francs, would you? It seems I'm completely broke." More laughs. We pulled out enough francs to tide him over. Hey, the shoe could have been on the other foot. . . .

All of us graduated nine months later, and then I married and followed my (also Lawrence) husband here to St. Louis (Washington University), and we've lived here ever since. Dave and I didn't keep in touch, *per se*, but over the next few years, we attended several weddings of mutual friends, and later I learned about things via the grapevine, including his and Margaret's life in Minnesota. Then, we got busy rais-

ing our kids, working in education, and of course, we knew of Dave's accident that changed his life. I knew they were in D.C.

In the 90s, I read an article in the *Post-Dispatch* about David Gray being named to the Paraquad Board here in St. Louis. This had to be the same David Gray I knew. I somehow found a phone contact number to find out for sure. Immediately, Margaret, Dave, Mike, and I got together for a meal and have been intentional friends ever since. Our children were exactly the same ages, and we attended each other's daughters' weddings here in St. Louis. They have visited us at our lake home in northern Wisconsin.

Our most treasured shared journey was to Appleton, WI, in June of 2011, when Dave was awarded an Outstanding Alumni award at Lawrence University for his advocacy and career path dedicated to awareness and action on behalf of those with disabilities. It was a proud moment and a reminder of how lives can be transformed. Mike and I, along with many others, cheered him on.

I haven't actually collected euros on the loaned French francs yet. I'm holding Dave hostage. But watching his life of "paying it forward" and having our paths cross near the Mississippi River has been quite the payback. Now, when Dave, Margaret, Mike, and I meet, it's clearly intentional.

Graduate School—Dissertation advisor and friend

Travis Thompson

My friend and former student Dave Gray had a devastating falling accident not long after completing his PhD at the University of Minnesota. The accident damaged his cervical spinal cord, rendering him largely quadriplegic. I remember thinking, "Boy, this is going to be really tough for Dave!" What an absurd idea! It wasn't tough; it was bloody near impossible! His recovery seemed unimaginable; it was beyond comprehension how incredibly hard it was for both Dave and his wife, Margaret. Somehow he, Margy, and the kids—now all amazing adult professionals—survived and, despite his enormous disadvantage, created an entirely new life. Margaret went back to school and finished her PhD and is now a professor of Special Education at Fontbonne University in St. Louis. Dave is a Professor of Occupational Therapy and Neurology at Washington University.

Maybe some of you are wondering whether this has anything to do with behavior analysis since, in my mind, nearly everything has to do with behavior analysis in some way. Dave's dissertation involved studying the performance of individuals with Down syndrome under fixed interval reinforcement schedules with and without an added clock. It was based, in part, in the perceptual phenotype of Down syndrome. Dave was also very interested in genetics. Much later, when he was acting director at the National Center for Medical Rehabilitation Research he was instrumental in promoting support for behavior analytic approaches to rehabilitation research. And Dave's recovery? The living and breathing definition of shaping by successive approximations, stimulus control, fading, and learning to maintain performance under the rigors of an outrageous Fibonacci VI reinforcement schedule. (For you younger BAs, you will find a section on that in Ferster and Skinner, 1957.)

So, as I pondered the blurry gray image of my hip joint yesterday in the orthopedics clinic, at the thick, white space where once a nice, soft

articular cartilage pad had cushioned the head of my femur from banging into the bone on the other side of the socket, I thought, "Hmmm, I can do that. That's nothing compared to surviving a broken neck." It's all a matter of perspective and setting realistic goals, identifying reinforcers, and sticking with the schedule, sort of, more or less . . . notice my fingers are crossed.

Dave Gray: Storming the Castle

[NIDRR, NIH, Washington University]
Donald Lollar

For those unfamiliar with the 80s cult classic *The Princess Bride*, "Have fun storming the castle" is the phrase used by Billy Crystal's character Miracle Max (the last miracle worker) to empower hero Westley as he goes with his two friends to free his dear Buttercup, being held prisoner in the castle of the wicked Prince Humperdinck—with one gate being guarded by 60 soldiers. As Westley and friends move toward the castle, Max's wife asks, "Think it'll work?" to which Miracle Max replies, "It would take a miracle".

Now, many of you may already have decided why I've chosen this vignette to introduce my thoughts about Dave Gray. Not because he is the most handsome guy around, although Margy thinks differently. Not because he's the sharpest knife in the drawer—I mean, he let his chair battery go dead in the middle of London while out to dinner during a conference. It is no fun pushing a heavy chair for a mile back toward the hotel; he was saved by London cabbies. By the way, he loves London cabs because they are most always accessible—even for his big guy chair.

You know that Dave forever has stormed the castles in his life—and, mostly, had fun doing it. I can imagine Dave as a young, formidable hockey player, relishing the opportunity to challenge opponents on the boards. Can't you see it? Penalty, shmenalty. In my years of knowing Dave, I have not known him to back off from a challenging situation—personally or professionally. Okay, he did admit to misjudging the difficulty those with visual challenges might have deciphering green from yellow projected onto a screen for his presentation at the yearly ICF conference in Vail a few years back, even though they looked so clear on his computer screen—and after he had been apoplectic about the need for accessibility for those with mobility challenges. Okay, not apoplectic, just extremely incensed.

Dave stormed the walls of the National Institute on Disability and Rehabilitation Research (NIDRR) during his years there on behalf of strengthening the rigor of research being funded by that agency. That meant challenging some of the concerns of the disability advocacy community about medicine being too dominant if higher standards were implemented. The walls did not tumble, but since that time, NIDRR has continued to move more forcefully toward strong research. Dave set the foundation for that movement. He also envisioned NIDRR going to the U.S. Department of Health and Human Services, and that has just occurred. A prophet is without honor in his own country.

Next, he tackled the formidable National Institutes of Health on behalf of a more balanced disability research agenda. His concern, as the first acting director of the National Center for Medical Rehabilitation Research, was that too much emphasis was placed on diagnoses without research attention to the real-life difficulties and environmental barriers in the real world.

That same castle wall reared its head in the Institute of Medicine Social Security panel on which he served. Dave continued to hammer on the notion that too much professional energy and too many resources were focused on better and more granular evaluation of the individual, whereas almost no resources were being placed on ways to evaluate the work settings in which people were to be employed.

Washington University was a whole different experience for Dr. Gray. He was thrust into the role of professor and researcher, vying for the funds which he oversaw in his previous positions. I had previously only seen Dave speak at an American Psychological Association meeting during his time at NIDRR. He was then what he is now—passionate and irreverent. I realized after his talk, not having any status, that I could not reach him, even to touch the helm of his garment.

Fast forward some five years, and I had had the great, humbling honor of developing a disability and health program at the Centers for Disease Control and Prevention. Our first attempt to encourage research that would develop tools to measure two constructs in the newly developing World Health Organization's international classifi-

cation—Participation and Environment—was "on the street." Lo and behold, Dr. David Gray submitted a proposal to measure these factors. What a wonderful coalescing of ideas and money. Kismet! Dr. Gray was funded for his research. For a time, he did not have to storm the castle. The knock had been answered. Dr. Gray became an important contributor to the WHO work, conceptually and scientifically.

We have been friends and colleagues throughout these past 20 years, almost always agreeing on outcome, but often not agreeing on specifics. But our common passion and irreverence keep us grounded and continuing to work together.

David Gray has had a profound influence on his chosen field of study, his colleagues, and his students. I am pleased to be a part of hislife.

Reflections

Bill Payne

People with strength of purpose have always fascinated me; battling the odds and obstacles through perseverance. Finding refuge, as well as strength, in purpose provides an essential plateau to regroup and reorganize ones thoughts when the voices of doubt threaten to overturn any sense of progress, is an art in itself. It takes a person of enormous heart and focus, whose basic concepts of how to live and thrive have been turned upside down and tested, at times beyond endurance, to regain momentum within to pursue the twin aspirations of hope and optimism. It is a remarkable gift, and yet an empty one if not tied to the dynamic of implementation through a concerted course of common sense and decency to help people live more constructive lives. That was Dr. David Gray's professional life and purpose. He was also fiercely protective of his family, particularly his children. That was the man I was introduced to and proudly called "Dave."

Polly and I had just visited the family over the holidays in December. Dave and I had watched Ken Burns' documentary on the Roosevelts. He had slept through most of it or so I thought, but tellingly knew when each episode ended, waking up, and asking to see the next installment. Dave was also a fan of English drama, mystery and comedy: Foyle's War, Inspector Morse, and Doc Martin. Convening to the TV room, Dave, Margy, Polly, and I spent many an evening in previous years watching and re-visiting episodes that we had previously seen. Dave would look up at us and say, "What do you think? You want to watch one more?" Absolutely!

Dave and I were friends and treated each other as such. Our free ranging discussions reflected that bond between us. Neither of us held high regard to arrogant authority. When discussing a situation whether to his liking or not, his eyebrows raised, accompanied by either a wry smile or exhausted frown, signaled that a nerve had been struck.

He was well aware of the reality and the plight of people with disabil-

ities, a perspective forged from nearly four decades of being in a wheelchair and limited use of his hands but with full faculties of the mind. He was not one to suffer fools gladly, making Dr. David Gray a person to be reckoned with. He championed the perception of how most of us view *the handicapped* by changing the nomenclature to *people with disabilities*. Change is never easy, especially when it involves prejudice to outmoded systems and beliefs.

I admire him greatly for his stance as a fighter. The fight was not just for what he believed in but also for the paths he was continually and exhaustively exploring.

His achievements included raising awareness and understanding of the myriad issues confronting the disabled and abled communities alike. He combined practical solutions and their application coupled with compassion and dignity for the human spirit, acknowledging the importance of self-determination and self worth, thus empowering and enriching the communities and world we live in.

That is Dr. David Gray's legacy.

My Brother

by Cilla Laula

I always thought I would marry a man named Dave. He would be handsome, caring, kind, and he would love me very much. I didn't marry a man named Dave. I never even dated a David, but my relationship with my big brother formed my ideas of what a caring guy could be.

Asking a younger sister who happens to be over 65 to share her reflections is a vote of confidence or folly, as my memory has blurred events. Family stories have grown more distorted and humorous as we have aged, so I will proceed with caution or abandon and lie shamelessly about our shared past in sharing highlights of my big brother "D," or his very distinguished given name, David Bertsch Gray.

I am the third of four children in the Gray family—the only girl, who was spoiled (or so everyone told me) by my doting father. I did not believe I was Dad's precious angel, as my brothers jealously taunted me. Priscilla, but not prissy, I was smaller than most children my age, so I had to be either extra cute or surprisingly naughty in my choice of words to fit into a family of brothers whose behavior tended toward sports, competition between them, and bodily noises. In spite of my determination to keep up, I could never compete physically or verbally, much less win the daily matches between Fred and Dave. They were bigger, smarter, and sharper. Teasing was the norm in our family and, often, the results left me feeling frustrated and powerless.

That being said, Dave was usually my ally and sometimes coconspirator against our sly and very clever big brother Fred. The competition between them was fierce. Fred was a master of deceit—a sideways glance, nudge, verbal slight, or quiet, annoying noise would send us into fits. Dave was quick to ignite, so he was usually took the blame and received punishment for whatever misdeed or quarrel resulted. I was there on the ground and knew what was *really* happening and tried to stick up for D, to no avail. Fred rarely got caught, much to our frustration at the unfairness of it. So, if there were ways we could get back at

Fred, we were delighted. However, it rarely happened! In retrospect, Dave's fighting spirit has helped him beat the Freds of life.

Happier memories of my big brother D include him helping me learn to ride my two-wheeler, holding me up while racing along beside me on the "big" hill in our front yard (which, when revisited years later, turned out to be barely an incline). Being a girl and so small, my parents felt I needed a male protector when I went out, so Dave shared his love for skating and occasionally took me to Mr. Rose's on nearby Reed's Lake, where he spent hours shoveling and grooming the rink. Another happy memory is D saving his allowance and lawn mowing money to treat me and our younger brother Bill to an afternoon at the swimming pool at the Grand Hotel on Mackinaw Island.

Containing our hysterics bonded us—giggling at the soprano solo in church, making arm pit fart noises in a motel and lying about who kept instigating the noises, or claiming nothing untoward had happened when parents returned from a rare evening out, somehow knowing World War III had occurred in their absence.

Another favorite memory is of a Christmas gift Dave gave to Mom. Over and over, he put his allowance and savings in a gumball machine that held not only gum, but also pop-it beads. Bead by bead and penny after penny, he was able to pop together enough beads to make a pop-it necklace and matching bracelet. That remains a cherished memory 60 years later.

Despite an elementary school principal's assertion that Dave would not amount to much, he earned a PhD, worked for the NIH, received a presidential appointment, worked on committees nationally and internationally on disability rights, and served as faculty at WU. Our loyal and proud mom wished she could tell "that woman," in her very polite, Christian way, "how very *wrong* she had been about my David!"

Fortunately, we Gray children have left the frustrations of youth behind and have forged loving relationships with one another and the families we have created. We gather for graduations, weddings, and significant birthdays, always loudly and with riotous laughter, exaggerated stories of our past, and lots of expressions of love between us. When

mom died recently, we were solid in our support of one another in our grief and celebration of the love and gifts she gave us.

As I reflect on the memories of our childhood, I see that the qualities Dave showed as a boy and that made him my protector and pal are qualities he has carried into adulthood and have served him well personally and professionally. His energy; fierce determination to prove himself; his generosity; perseverance in the face of his life-altering accident; his loyalty to his wife, children, and college friends; and his tireless advocacy for people with disabilities continue to define him in the most positive of ways. No account of Dave is complete without words of appreciation for Margy, the woman he married and with whom he has shared his life. She shares his Midwestern values of loyalty, hard work, and meeting adversity with clear thinking and determination. They share love of their remarkable three children, learning, teaching, and academic brilliance. What an honor to have had this opportunity to think about my big brother Dave. How lucky I am. What a guy!!!

Victory Gardens 1948–1957

Frederick C. Gray

During our early years, sometime before the onset of our teens, brother Dave and I found our ourselves in a small but comfortable room on the second floor of our suburban East Grand Rapids home.

The address made the house and many others in the area vaguely Dutch in appearance: Neat, Clean and Ivyed, like the home of my best friend, Don Van Dis, and like those of many of Dave's friends, most of whose double-syllabled last names bore testimony to their families' European origins, and ironically ones that Dad and thousands of others Americans were gearing up to fight the Nazis for.

Our windows overlooked the tidy lawns and driveways of our neighbors, and most uniquely, our own sprawling multi-vegetable garden that Dad had launched in the sandy loam on the back half of our spare lot. He must have done it during a short leave from the Army, and it remained almost forever a tribute to his Scotch-Irish-English ancestry and quiet, artistic side.

I'm afraid this rural garden, the only one of its kind in the area, had to bear its share of snickers and occasional ridicule as "Doc Gray's folly." No one called it our Victory Garden. But in fact Dad was quite proud of it, and the garden thrived and became, to Dave and me at least, almost monumental in our memories of hard work by all in the family.

The garden, with its rows of corn interspersed with watermelon and cantaloupe, was also home to vines of heavenly tomatoes that were propped up by thin green posts, and divided by occasional rows of radishes and beans and dozens of other vegetables. It survived cadres of beetles and garter snakes and most horribly, frequent downpours of rain with slithering armies of worms.

The garden was surrounded by thorns, sharp as barbed-wire, and in a way it was our own theater of war, similar in miniature to the farm in the eastern-most corner of Tennessee where Dad had grown up. From there, on the strength of intellect and perseverance, he vaulted over

generations of country folk to enroll in Vanderbilt University, where he graduated as a budding obstetrician/gynecologist.

He came north to do his internship at Butterworth Hospital in Grand Rapids, where he met Mom, a medical social worker. And the rest is family history.

Not too much later Dad shipped out to England, where he spent the next year preparing to cross the Channel on D-Day and serve as a U.S. Army medic in France. In the meantime, Dave, Mom and I inherited the garden for safekeeping.

"I was D-Day Plus ten," he would tell us later, in a rare, encapsulated moment of personal history.

During the war, the garden dominated the spare-time activities of Dave and me, the "resident farm hands," as we might have called ourselves. And when Dad returned home from Europe in 1946, the garden served a real need: it nurtured Dad's need for a connection with his Rogersville, Tennessee, roots. He very much missed the South.

As a dutiful "Southern wife" and fully qualified medical social worker, our Northern-raised and educated Mom contributed in the kitchen with her canning and cooking skills. And to her everlasting credit, she bore the travails of our gardening in near silence even though the garden was always visible through the window over the kitchen sink.

And by way of balance and compromise with her personal goals, she encouraged her children's musical inclinations and experimentations whenever possible. Dave and I were direct recipients of her good will, and remember it well.

The natural garden and Mom's artistry on the Duo-Art baby grand player piano proved to be the distinguishing features of family life, long before Dave's sci-fi monster Mandarin-style drum set took command of his room in our new home, the comparatively luxurious but gardenless house near Reeds Lake. Sister Cilla's violin and my trombone, both unpainted and isolated in their own near-soundproof wings of the house, came in as also-rans.

Back in our shared bedroom of the first home, young Dave was assigned the south bed and I the north. My tiptoe into psychiatry leads

me to believe that since we had no dog or cat or other animal to absorb gratuitous punishments, the rest of the room was fair play for us to inflict those diversions on each other. Which we did whenever occasion, law and implements allowed.

Most often we woke up at the same time, dressed, descended to the kitchen for Mom's healthy and plentiful breakfasts. Fortified for the rest of the day, we dutifully made our beds, straightened the rest as best we could and took off for school. We left the balance of disorder for Mom and Blanche, the beloved family maid, to polish.

It was an ideal life and why we did not appreciate it is a mystery the family is still trying to fathom. Dave entertains his family around the Thanksgiving Day and Christmas dining tables and bedsides with real and concocted stories of brotherly conflict.

"Come on Dad, tell us about the time Uncle Fred went after you with a hammer"—has now become Dave's family's insistence that he tell the all-time classic bedtime story of about how one brother bullied the other barely two years his senior! Unfortunately for me, the story has been "authenticated" by our own parents who stepped out that night of our own "Goldilocks and the Wolf" fairy tale.

To be honest I remember the hammer incident myself (no damage done, by the way, to anything but a window pane), and withdraw from family story-telling at Dave's home when the occasion arises and laughter is either likely, or not.

When inspired, Dave could really milk the story, and bang those red, orange and black drums and make the painted dragon's tail waggle till it near fell off the lacquered skins.

I regret I could not witness the US Department of Education confirmation hearings of the Reagan years that followed Dave's appointment to head one of the departments. It's a great story but too intricate to detail here.

But I think of my brother often, and certainly every time I see a disabled parking sign or read about the Americans with Disabilities Act, which Dave helped get through the legislative process. Who is to doubt the ADA's true and lasting contribution to America's social benefits?

Not me. After all, brother Dave planted the seeds of the ADA in our Victory Garden. And it should be given credit in history books like this one.

And certainly not Frank Kuta (rhymes with hoota), the seventh-grade math teacher who hurled an eraser at Dave during a moment of classroom insubordination. I don't recall what provoked the dispute, but news of the flying eraser was of the type that inspired President Reagan to demand of Soviet leader Mikhail Gorbachev that he "tear down this wall."

Glen White, PhD

Professor, Applied Behavioral Science
Director, Research and Training, Center on Independent Living
The University of Kansas February 13, 2015

It is with great sadness that we share with you the loss of Dr. David Gray, Professor in Occupational Therapy at Washington University in St. Louis. Dr. Gray passed away on February 12, 2015, at his home. David and his colleague, Dr. Jessica Dashner, also in the OT Department at Washington University, have been research partners with the Research and Training Center on Independent Living at the University of Kansas for over 10 years.

Dr. Gray was a pioneer in the field of Disability and Rehabilitation research and a tireless advocate for the rights of people with disabilities. He was an insightful teacher and wonderful mentor to the students who were fortunate enough to be able to work with him.

Dr. Gray blazed the trail of disability research in many ways. He was the first person with a disability to head the National Institute on Disability and Rehabilitation Research (called National Institute of Handicapped Research back then, before he helped change the name). He went on to NIH where he helped to establish the National Center for Medical and Rehabilitation Research. He was always the consummate researcher who used science to identify solutions to socially relevant problems, and apply the results to improve the lives of people with disabilities.

Most of all, David Gray was a friend and trusted colleague who worked tirelessly to make the world a better place. We will miss his keen intellect, his boundless energy, his innovative ideas and his sense of humor. His untimely departure from this life will leave a vacuum that will not be easily filled, if at all. Well done, good and faithful servant.

Russell Ewell, M.DIV.

Vice Chair, UM Committee on Disability Ministries
Associate Pastor, The Village Church of St. Louis UMC,
February 15, 2015

Today I am saddened to learn of the passing of a great Disability Rights trailblazer, Dr. David B. Gray. He was a great friend and a hero of mine and countless others. If you attended the Disability Awareness Forum I facilitated this past September entitled Beyond Accessibility, you will remember him as one of the distinguished panelist whose story moved people to change their view of what it means to be a person with a disability.

As a national leader who truly worked from the "historic" Independent Living philosophy, his voice in the public discourse will truly be missed. Although there remains a remnant of leaders who lead from this ethos, with the passing of people such as Dr. David Gray, Max Starkloff, Jim Tusher, Harold Wilke, Dr. Nancy Eiesland, Justin Dart Jr., and Ed Roberts, I fear that people will forget the concept of being led by the vision, and not allowing the vision to be informed by conflicting voices. I do believe that the message can be both contextual and relevant without losing its effectiveness. That is what these great women and men taught me. And that is indeed how I saw David move in whichever professional arena he was traveling that particular day.

Man, I'm gonna miss you David.

Dr. Gray leading OT Seminar at Washington University, May 2014

Dr. Gray pulling Alice Zhang and Glen White down to Blueberry Hill, one of his favorite restaurants in St. Louis.