

Chapter 7: Extreme Equilibrium

"...you watch Unus standing on one finger and you think, 'Look at such a fine, intelligent and excellent man making his living standing on one finger when most of us can't even stand on our feet.' "

Ernest Hemingway, from an essay written for the program of the 1953 Ringling Brothers and Barnum & Bailey Circus

Measured by any test you might care to devise, professional ballet dancers and ice skaters possess exceptional balance. So do top-level skiers, surfers, and gymnasts, as well as seasoned players of every kind of ball game known to our ball-obsessed species. But there's no better place in the world to observe the full panoply of balance prowess—by humans as well as other creatures—than a good ol' fashioned circus.

At the Ringling Brothers and Barnum & Bailey Circus, clowns juggle while riding unicycles, dance on stilts, balance baseball caps on their noses, and chairs on their chins, or climb freestanding ladders that tip over while they're on top. The horse trainer/contortionist balances on a ring suspended far above the floor. Animals get into the act, too: a row of elephants all standing on their hind legs, with their front legs resting on the flanks of the animal in front of them; sheep dogs who walk backward on their two hind legs; horses kneeling down on one leg as if "bowing" to the audience. Most circus performers are balance artists almost by definition.

In fact, several founders of the earliest modern circuses were performers themselves whose acts highlighted their extraordinary balance. The circus as we know it today was created in England in the late 1700s, by a 25-year-old entrepreneur who had

just retired from His Majesty's Royal Regiment of Light Dragoons. His name was Sergeant-Major Philip Astley. As a dragoon, or cavalryman, he had won fame as a trick rider. Early in his career, while practicing with his regiment, he so astonished commoners who watched him ride that he was thought to be "the devil in disguise," according to one account. He was seen riding "full speed standing upon his horse and leap(ing) off and mount(ing) again without the horse slackening his pace." This test of balance was followed by one even more diabolical: as his horse cantered around in a circle, Astley stood "upon his head with his heels in the air."¹

After retiring at a tender age, Astley began a second career as a showman, charging audiences a small sum to witness his equestrian prowess as he and his riding students performed on a small field in London. The popularity of his horse shows allowed him to move into ever more sophisticated arenas. As the money rolled in, these venues began to look as ornate and regal as opera houses, as though King George himself might be sitting in one of the several levels of balconies that surrounded the circular stage, on which Astley and his wife, also an accomplished rider, rode their steeds.

Engravings from the period show horses circling the ring at a thunderous pace, chandeliers blazing overhead. A man directs the mounts with a stick or whip from the middle of the ring, while riders balance, on one leg or two, on the horse's backs, sometimes with another person standing on the rider's shoulders. In addition to humans balancing on horses, horses also balanced on their two hind legs. Astley was allegedly the first person to teach horses to dance (on two legs), which they did to music. One steed even learned how to "lift a kettle from the fire and arrange the tea things for company," while standing on two legs.² Astley was by all accounts a savvy businessman, and before

his audiences could get bored watching trick riding demonstrations, he spiced his show with itinerant clowns, acrobats, jugglers, and tightrope walkers. Thus was born the modern “circus,” which in Latin simply means “circle,” a nod, it seems, to the circular equestrian stage of Astley’s design.

For centuries, since at least Ancient Greece and Rome, the performers Astley added to his equestrian show had been mainstays of village fairs and harvest festivals throughout much of Europe. But until Astley’s circuses, along with those of his many imitators, began proliferating throughout England, Europe, and the United States, those performers had rarely had steady gigs. In 1882, one American tightrope walker who did manage to find regular employment in a traveling circus convinced his four brothers to join forces with him and start their own troupe. The Ringling Brothers Classic & Comic Concert Company began by entertaining Midwest audiences, then expanded into the Northeast, growing bigger and more sophisticated as it gained fame. By 1907, the Ringlings were powerful enough to purchase their biggest competitor, Barnum & Bailey, which they merged with their own show into one giant circus in 1919. By 1956, however, the show came under hard financial times and dissolved. It was resurrected that same year by a promoter who believed the show could go on if it used indoor arenas as venues instead of giant tents. The new formula worked.

Although no longer owned by the Ringling Brothers, the circus still carries the old familiar name: Ringling Brothers and Barnum & Bailey Greatest Show on Earth, and it was inside a large civic arena a day before the show’s opening performance that I met Crazy Wilson. One of the circus’s featured performers, Crazy Wilson, otherwise known as Wilson Dominguez, has traveled with Ringling Brothers for 9 years. Born into a

Columbian circus family, Dominguez, 33, is a fourth generation professional acrobat. Gracious and humble, he doesn't appear at all out of his mind. His build is that of a jockey, short, wiry, and not particularly muscular, and he wears his wavy black hair combed backward. When asked if he had good balance as a child, he answers, in his broken English: "Yeah, I think everybody born with something. I think I was born—thank you God you give me something—with some idea for good balance, some idea for creating new acts. When I go high I don't have too many scare."

Dominguez, like most circus balance artists, feels a strong compulsion to create acts that no one else performs. It comes from a sense that audiences (and probably circus managers, too) might become bored if they see the same act twice, so the degree of difficulty or amazement has to keep notching upward. Dominguez has devised two acts that set him apart from other balance performers, and for which he earned his professional moniker.

One involves a contraption called the Wheel. It's a 40-foot long, two-foot-wide metal structure, oriented vertically, that spins around on its axis. On one end is a heavy counterweight, and on the other is a circular cage, which rotates independently of the Wheel and is big enough for him to stand up inside. Dominguez starts his routine inside the cage, which is open on both sides. As the Wheel spins around slowly, he maintains a vertical position by constantly walking around inside the cage, like a pet hamster exercising on a circular treadmill. After the Wheel is spinning at a moderate pace, he then crawls *outside* the cage and stands on top of it. With nothing to hang on to (and no safety harnesses or nets), he has to keep walking in order to stay upright. The most spectacular element occurs just before the cage reaches its apex 40 feet above the ground, when

Dominguez launches himself off the end, somersaulting into the air. He hangs suspended for a long second, weightless, then as he begins falling to the ground he reaches out and grabs any part of the Wheel within his grasp. It looks spectacularly dangerous and it is; of all the circus acts he has ever performed, Dominguez has the most respect for the Wheel.

“First of all,” he explains, “it is higher than the high wire [40 feet compared to 30]. And when I do the somersault I don’t see nothing. I have to find something [to grasp], you know? When I do the somersault I put my hand like this [he flails around in front of him], ‘Where is the wheel?’ I am like a cat, I grab on anywhere. The people like it; that’s the most important. I work very hard.”

The highwire act that Dominguez performs comes later in the show. He and another Latino start out by jumping rope on the wire, their feet barely lifting to clear the rope as it twirls around them. Then comes a little sizzle, a signature trick that allegedly no one else in the world does. A tiny trampoline is mounted to the middle of the wire. Dominguez jumps up off the wire, springs off the trampoline, and flies a few feet into the air before landing on the wire again. Then, taking up the long, weighted balance pole, he stands on the wire just in front of the trampoline. His partner leaps onto the trampoline, launches into the air, and alights on Dominguez’s shoulders.

To me, having read about the sensational stunts that other high wire artists have performed in the past, Dominguez’s highwire act seems almost obligatory. Feats of superhuman balance on a high wire? That’s old fashioned, passé. Bring on the MTV brand of entertainment, the quick-hit, thrill-a-minute, techno-heavy approach. But I’d be willing to bet that balance feats on the wire that made headlines 50 or 100 years ago would have a similar impact today—if anybody would dare perform them.

Even skipping rope on the wire, which is considered an advanced skill, has been more flamboyantly executed by past performers. Harold Davis, who went by the stage name Great Alzana, was the Ringling Brothers star highwire performer during the 1950s. Wire walking was almost a misnomer when applied to his performances. Although he might begin a performance with a simple warm-up walk on the wire, he would quickly graduate to more difficult maneuvers: after skipping the length of the wire, he might break into a series of big hops, then begin running across it. Next he would grab a jump rope and in mid span begin a routine that would be a challenge to perform on the ground. He would twirl the rope forwards, then backwards, then begin taking big bounces off the wire as he did double and then triple loops. His signature trick, and the most dangerous one, was riding a bicycle across the wire while carrying three women.

Over his 40-year career as a funambulist (a word derived from the Latin “funis” [rope] and ambulare [walk]), Davis suffered two fractured backs and countless broken ankles, ribs, skull, arms, and legs. After years watching Davis perform, John Ringling observed that he was “the greatest and most foolhardy high-wire artist who ever lived.” Ringling himself personally lobbied the New York legislature, in the early 1950s, to pass a law requiring safety nets for aerial acts working more than 25 feet off the ground. He did it for one reason: to keep Davis from killing himself.³

The fall that spurred Ringling into action likely was the one that occurred in 1949, toward the end of Davis’s first season with the circus. It happened in Miami, during the bicycle act, which he performed then with his wife and two sisters.⁴ As Davis sat on the bike with a balance pole in his arms, Hilda, his younger sister, stood behind him, her feet supported by metal pegs attached to the bike’s frame. His wife Minnie and other sister

Elsie hung vertically from cables attached to the two wheel axles, spinning slowly in mid-air. Always during this act, Davis's father Charles, who had taught his children how to walk a wire when they were young, spotted them from 50 feet below. Unnoticed by the crowds that night, Charles moved along in the dark like a shadowy angel, as spotlights illuminated the performers above. Watching his family intently, Charles at first was unaware of the heavy rope that dangled from the top of the circus tent directly in the bicycle's path. Harold saw it the moment he launched the bicycle out across the wire, but it was too late. Unable to pedal backwards, he couldn't avoid the rope. When he realized what was about to happen, Harold began frantically yelling to the ground crew, but the band was playing so loudly that nobody could hear him. Seconds after touching his 18-foot, 40-pound balance pole, the rope pushed Harold off balance. "We've had it, we're going!" he shouted to the others as he wrestled with the weight of the rope. Clutching the pole, Harold wasn't able to grab the wire to save himself as he normally would have done. He could only hope that Hilda, behind him, was able to snatch it as she fell. But somehow she missed it too, and together they began their awful descent. Harold said he could see his wife's face, "white as a ghost," as he streaked past her.

But Charles was ready. Crouching low, timing his move precisely, he thrust himself beneath his children's bodies to break their fall. Instead of losing their lives, Harold and Hilda broke their backs. Meanwhile, Minnie and Elsie remained hanging from the bicycle. Their weight anchored the bike to the wire, and they were soon rescued unharmed. Harold and Hilda took months to recover from their injuries. Charles suffered torn neck ligaments and was released from the hospital after four days. For the next 10

years he repeated his vigilant walk at every performance, prepared to spring again to save his children from death.

Davis had been hired by Ringling to replace Karl Wallenda, the most famous name in the highwire profession. Wallenda, too, had disdained using a safety net. Both men believed the presence of a net made for sloppy, undisciplined performances. The fear of injury and death from a fall, they believed, compelled a performer to execute movements perfectly. They also thought they owed it to their audiences, who would be more intensely excited by a performance knowing a mistake would have morbid consequences.

Wallenda learned to walk a wire as a teenager, several years older than Davis was when he began. He came by this skill in a circuitous way. After learning rudimentary hand-balancing skills as a child, from his family, who were part of a long line of circus performers, Wallenda supported them during World War I by doing chair-balancing tricks on bierstubes floors. Next he had to figure out how to make a living in the shattered economy of post-war Europe. He kept practicing his chair handstand act, finally mastering handstands atop *four* stacked chairs, each balancing on two legs. But his audiences were so poor that he wasn't able to coax much change out of their pockets even with this balance tour de force. Forced to take a job in a coal mine, he found that he couldn't tolerate the wretched and dangerous working conditions and soon quit, vowing never to return. Somehow he had to find a job as an acrobat that paid a living wage.

He thought he'd hit the jackpot when he saw an ad in a national newspaper seeking someone to do handstands.⁵ But not just any handstand. It had to be performed while the man who placed the ad, Louis Weitzmann, a fearsome brute just released from

a Russian prison, was lying on his back on a rope suspended 60 feet in the air.

Weitzmann would point his legs upward, and his acrobat assistant would grasp his feet and push up into a handstand. The trick had never been done before, Weitzmann explained, but if they succeeded, crowds would come from miles around and make them wealthy. Though Wallenda had confidence in his own skills, he wasn't sure how he would perform so far above the earth, or whether Weitzmann could be trusted. If either of them bobbed, it was Wallenda who would pay the price, as he would be launched into space while his boss could easily grab the wire to save himself. But Wallenda was in a bind. Since he had no money, he felt he had to take the job. Weitzmann at first gave him just enough to sustain himself: a cot to sleep on, a monotonous diet of bologna sausage, and a rigorous training routine. Wallenda later discovered a chilling fact. Weitzmann had already gone through 14 apprentices. None had been able to perform "the trick."

Wallenda's fear of Weitzmann compelled him to train hard to prepare for the act. He already knew how to do any imaginable sort of handstand, but what he wasn't familiar with was walking on a wire, which was necessary for him to reach Weitzmann, who would be waiting for him mid-span, lying on his back. So his boss taught him the rudiments of funambulism. Starting on a low-wire suspended a few feet above the ground, he learned how to balance with the aid of a weighted balance pole. (The pole, which usually weighs between 30 and 50 pounds, serves the same stabilizing function as the outstretched arms of a person struggling to maintain balance while, say, walking on a narrow curb. The pole's weight pushes the performer into the wire and increases his inertia, making him more stable. They are used almost exclusively on the highwire, never on a low wire, and acts that don't use them are, as a rule, more difficult than those that

do.) Once proficient at this, Wallenda worked on wires set higher and higher, until his wire walking, and the act, was perfected. Audiences across Europe were transfixed by the sight of Wallenda's wobbling body as he perched precariously atop Weitzmann's feet high above the town, with no net to catch him if he faltered.

His apprenticeship served, Wallenda left Weitzmann to start his own act. He enlisted a brother and two others in what would become a seven-act circus performance. Several of the acts Wallenda created were variations of the chair balancing trick he had mastered as a child, now transferred to the high wire. (The chair actually saved him from being devoured once. When he fell from a wire suspended over an open-roofed lion's cage, he instantly jumped to his feet and used the chair to ward off the big cat.) In one such act, with a female performer (Helen Kreiss, who would later become his wife) standing on his shoulders, Wallenda sat on a chair delicately balanced on a steel bar yoked to the shoulders of two men who rode across the highwire on specially modified bicycles. When John Ringling saw this sensational four-person pyramid in Cuba in the 1920s, he hired the Wallenda team on the spot to join his famous circus in the United States, and the "Flying Wallendas," as they came to be known, remained mainstays of the Ringling Brothers circus throughout the 1930s and 40s.

Wallenda was recognized in his own time as an innovator among professional highwire performers. The tricks he invented were such crowd-pleasers, however, that other highwire artists often stole them. This made it more difficult for him to secure work, since circus owners were always looking for completely original acts. So in 1947 Wallenda set about creating a routine so difficult that no one would dare try to copy it. That's when he came up with the seven-man pyramid, one of the most challenging

balance acts ever executed. It consisted of three human tiers. The first was made up of two pairs of men fitted with special shoulder harnesses. Each man's harness held the end of a metal bar. Standing on these two bars were two more men, with a horizontal bar extending between them. And on top of that bar was—what else?—a chair balanced by the woman sitting on it. Each person held a 20-foot-long, 50-lb. balancing pole. The group seemed to inch its way along the highwire as a single entity, which one observer compared to the movement of a giant slug.

The Wallenda troupe spent hundreds of hours perfecting this act, and it was an instant hit. Crowds loved it. The competition couldn't copy it.⁶ The Wallendas did the seven-man pyramid act for many years without incident—and without a safety net, as Wallenda demanded. Sadly, almost inevitably, the pyramid finally did fall, in Detroit in 1962. The results were predictably grim. Three of the four men from the first tier fell to the ground. Two died that night. The third, Karl's son Mario, was paralyzed from the waist down for the rest of his life. While one man from the first tier somehow remained standing on the wire, Karl and his brother Herman, who had both been on the second tier, managed to grab the wire as they plummeted. The girl at the third, topmost level landed on Karl, and he held her as a makeshift net was assembled below, into which she was dropped. Karl suffered a cracked pelvis and a double hernia.

Although Wallenda promised his wife that he would never do the seven-man pyramid again, he went back on his word a year later when a television film crew wanted the troupe to recreate the act for a feature on the Wallenda family. Pride and the desire for more fame and money won Wallenda's consent, but convincing the rest of the troupe was another matter. Wallenda used the argument that they would only do the trick for the

camera. But that was just a ruse. He intended to resurrect the act and, once perfected again, to take it on the road. Seventeen performances later, however, the “seven” became so wobbly that even Wallenda admitted it should be ended for good.

Herman, Karl’s brother, retired from the troupe at 62. Karl thought about quitting the profession too. But he could not. “I get so damn lonely on the ground,” he said when he was 70 years old. In 1972 he walked across a wire stretched over the field at Philadelphia Stadium, entertaining Phillies baseball fans. A few years later, he walked 750 feet across Tallulah Falls in northeastern Georgia, despite a vicious wind that threatened to topple him. He even did a headstand in mid span to demonstrate his mastery. By then Wallenda was something of an icon; Hollywood portrayed him in a movie starring Lloyd Bridges. But his grand-daughter Delilah felt he “was becoming unstoppable in his compulsion to top even himself.” He didn’t seem to care how high the wire was positioned, or what he walked above. “After 50 feet, it doesn’t matter how high you are,” he was quoted in an Idaho newspaper. “I’d walk a cable 10,000 feet high, if they could put it up. I fall 50 feet, I’m dead anyway.” A short time later, in Puerto Rico, Wallenda fell to his death from a wire at the age of 73. Though it was widely reported that a sudden gust of wind had knocked him over, his relatives claim that the wire had not been guyed properly. The fall had nothing to do with a lack of fitness or bad technique. It was, in a way, an appropriate death for a man who felt most alive when he was walking a wire, who at one time said, “Life is being on the wire; everything else is just waiting.”

But not all acrobats expect to extend their careers into old age. “You cannot do this your whole life, because what I do now is very dangerous,” says “Crazy” Wilson Dominguez. “Every act is very dangerous.” He’d like to perform perhaps seven more

years, until he's 40. Then, among other things, he'll have the freedom to play the sports he loves but cannot participate in—soccer and baseball and basketball. An injury incurred playing would prevent him from working, a risk he is unwilling to take now. The one sport he yearns for more than any other is surfing. “When I see that,” he says with childish glee, “I go, ‘Oh my God, that’s easy for me because I have balance,’ you know?” With his gift for balance, one might think Dominguez would have mastered the sport in a few days, when he was vacationing in Acapulco once. But it actually took him a couple of months just to stand up on a board. “It’s different balance because the board moves,” he explains.

Dominguez shrugs off the various falls he has taken. Only two resulted in injury, the worst when he was 17 and still learning to rope dance. He broke both legs when he landed that time. Traditionally, learning takes place on wires erected a few feet above the ground, to minimize the danger. As the apprentice’s skills and comfort increase, the height can be raised. The learning curve for wire walking, however, is long, steep, and irritating, according to Anne Wishinsky, who began training on a wire seven years ago, at the San Francisco School of Circus Arts. She now performs on a tight wire and teaches at the circus school when she isn’t working at her regular job as a librarian. Learning is also rather monotonous, she says, requiring endless repetition before the body “gets it.” I ask her if she teaches anyone with aspirations of joining a circus. “No,” she answers. “Ideally you’d want to start with a child or teenager, and they just don’t have the attention span or the concentration it takes to do it. You have to be really willing to be alone. Kids just don’t want to practice, because it’s boring. Walking the wire is sort of like playing scales on the piano. Most parents don’t force their kids: ‘Now get out there

and walk 500 times across the wire.’ It’s also frustrating because when you first get on you can’t stay on the wire. All you’re doing is falling off, falling off, falling off. It gives you this really bad feeling of frustration: ‘Why can’t I do this?’ I mean, you see squirrels and things running along (telephone) wires, but they have a much lower center of gravity, four legs, and they’re about half an inch from the wire.”

Anne, 39, whose stage name is Winnie, performs a routine on the wire that involves jumps, kicks, skipping rope, doing splits, riding a unicycle, and climbing an unsupported ladder. For her, skipping rope is the most difficult trick. But just getting to the point where you can walk comfortably on the wire is the biggest initial hurdle, a feat that took her a year of steady work to accomplish. “It’s good to have an idea of where your center of gravity is,” she says of the process she went through to learn. “The way I learned this was to do squats on the wire, and then come back up. And as soon as you squat down, everything comes into the center. You feel everything stop flailing and you’re still. You can see where you’re balancing from when you do that. Once you can walk, everything else is easy. It’s meditative, because you have to focus on the other end of the wire. You can only look at one thing, so you can only think about one thing, and your mind gets in this zone of really focusing on what you have to do with your body.”

I asked her about a tight wire feat I had heard about that seemed patently impossible: walking a wire while blindfolded. The French funambulist Jean Francois Gravelet, known as Blondin for the color of his hair, had supposedly done it, along with many other high wire artists. From what I knew about the human balance system, I figured that something as difficult as walking on a wire would require visual input. In a memorable demonstration of this principle, a Russian researcher in the 1970s explored

the role of vision in human balance in a novel way—by using circus acrobats as test subjects. There’s no record of how willing these acrobats were to participate, but perhaps they had little choice, since Russia was a communist country at the time. The acrobats were asked to stand on top of one another’s shoulders. Under normal conditions, stacks of about six trained performers, depending on their skill level, can maintain their balance in this position for several minutes. Doing this isn’t at all easy. Postural sway, the slight corrective movements the human body makes as it stands upright, increases with each acrobat in the formation, least at the bottom and greatest at the top. In the Russian experiment, the acrobats faced the added challenge of balancing this way in the dark. Under these circumstances, towers of more than two men could not stay aloft. With two “blind” performers, only two of the three sensory inputs for balance—vestibular and proprioception—were enough to maintain the tower. The addition of a third acrobat increased the sway to the point where all three inputs were required.

Wire walking blindfolded, Wishinsky tells me with a laugh, is a hoax. Some people can walk a short distance on a wire with their eyes closed, “but not the whole wire.” If a performer uses a bag to cover his head, it’s made of a porous material like burlap, so they can still see. If they use a blindfold, they can still look down their noses at the wire. This raised a red flag: were other seemingly difficult stunts on the wire rigged as well? Wishinsky confirms this, but quickly adds: “I’m not really at liberty to disclose those things.” Then she backtracks a little. “Even the things that a performer tries to make look harder than they are, are still really difficult. A back tuck [a backward somersault in the tuck position], the front somersault, there’s no easy way to do them.” She explains that the front tuck is one of the hardest things you can do on a wire, because during the

somersault you can't see the wire. You're facing up toward the sky and your feet land on the wire before you can see it. Few people in the world can do it, nor can more than a handful do a double back tuck. One Chinese acrobat, working at Cirque de Soleil, can do a back tuck from one wire to another wire that's five feet above and three feet over from the first wire. This is incredibly difficult, Wishinsky says. Another person she's heard about can ride a giraffe unicycle on the wire, and perform a back tuck off the unicycle and land on the wire. Yikes!

Before she took up the tight wire, Wishinsky learned several other circus arts, including trapeze and hand balancing. The act requiring the most balance, she says without hesitating, is "tight wire, because it doesn't move. You only have the wire. You have to stay over the wire. You don't have any leeway to lose your balance. You have to keep it all the time, otherwise you're off."

At the Ringling Brothers' Circus performance, as Dominguez and I talk before the show, four female members of the Chinese acrobatic troupe practice next to us. It is utterly impossible not to be distracted by their grace and skill. Two of them quietly perform handstands on low wooden benches, handstands so exquisitely balanced and still, on two hands and one, that they look somehow inhuman. Dominguez notices my diverted gaze and looks toward them as well. "They are the best," he says. "Phenomenal. For me, the Chinese have the best balance in the world. With the hands, they are the best." Dominguez expects his pre-teen girls to follow in the family tradition and become circus performers. The daily presence of the Chinese acrobats provides an excellent role model for them, he says. The girls are learning contortion and hand balancing, like the

Chinese acrobats, and also basic trampoline skills, as Dominguez did when he was a boy. But the circus education the Dominguez girls are receiving probably doesn't begin to match the training the Chinese girls had in their native country.

Hand balancing is probably at least as old a circus art as funambulism. Standing or walking on one's hands looks bizarre and difficult, and that makes it a natural for entertaining crowds of people who could no more stand on their hands than they could eat with their feet. It's one of the core maneuvers of acrobatics, a performance art involving juggling, contortion, trapeze work, or wire walking. Its legacy in China goes back, some say, 3,000 years. It is still considered a classical art form there, revered to the same degree that opera or ballet is in Europe. Touring professional troupes are not only a mainstay of Chinese culture, but have become well known in the West as a component of various circuses. The origins of acrobatics in the Far East are murky. Some suggest it began when farmers met at Fall harvest festivals and entertained each other with magic and simple acrobatic acts, such as walking on 10-foot stilts or spinning several plates in the air at once. Others believe it grew out of the practice of martial arts.

Hundreds, if not thousands, of children are schooled in the acrobatic arts today in China (and also in Russia, Eastern Europe, and South America). Whether taught by expert parents or at special schools, such as the Beijing Acrobatic School, children's instruction begins at about age five. Much of their training consists of daily exposure to exercises that challenge the balance and muscular systems, such as walking on unstable objects like ropes or balls, performing handstands, contorting the body, and juggling. For the first couple of years, students learn the basics of balancing, tumbling, dancing, flexibility and strength. Handsprings, somersaults, and headstands are mastered through

hours of intense and often physically painful practice. Then student acrobats spend the next three to five years working on specific acts, almost all involving highly developed balance skills.

Some of the tricks don't look all that difficult—until you think about trying to do them yourself. How about performing a one-armed handstand on your partner's head while both of you use your free arms to spin plates at the end of sticks? Or doing a handstand and hopping around the stage while every part of your body except your arms is squeezed inside a tiny barrel? Another eye-catcher is doing a one-handed handstand on a short pole, while your partner does a one-handed handstand with his hand resting on the back of your head. These are all part of a Chinese acrobat's palette of stunts.

The hallmark of any acrobatic routine is the performers' nonchalant, anybody-can-do-this persona. But this high level of proficiency takes years of intense practice. Most performers don't take their acts public until they are teenagers, after they have truly mastered them. Two of the Chinese acrobats in the Ringling Brothers' show are cousins who perform together, Yongjie Yuan, a petite but incredibly strong girl of 12, and Fei Yuan, a 17-year-old boy. Through their Chinese coach and a translator, I spoke with them—or attempted to—as we sat near the perimeter of a circus ring before the evening performance. Both children were dressed in sweat clothes. I was struck by how childish and frail Yongjie seemed. She had a distant, bewildered look in her eyes that made me think she should still be at home with her family, not working 300 shows a year in a strange country. Neither one spoke nor understood English, and neither did the coach, who insisted on answering all my questions, through the translator, even though I tried to direct them to the kids. During the interview both children seemed remote and bored,

more interested in the two jersey cows who were circling the adjacent ring, commanded by a young dark-haired woman. Fei sometimes held his face in his hands as if he were exhausted. About the only time they looked in my direction was when the translator relayed my questions, always to the coach, an irritable man who seemed annoyed by my presence.

He confirmed that Fei and Jie, as she is called, had started their training when they were six or seven years old, but had only trained together for the past two years. They were part of a troupe of 14 from China, 11 acrobats plus the coach, an academic teacher, and the translator. The children had learned the basics of acrobatics in a special school in Henan province, in Central China, where they trained five to six hours per day, four days a week, with two days devoted to academic work, and one day of rest. Children are often encouraged by their parents to audition for the school, for if accepted they can bring prestige and honor to themselves and their families, because acrobats are as revered in Chinese society as movie actors and pop stars are in the U.S. But the social cost to the families—and to the children—can be steep. Once accepted at the state-run schools, often located far from the family's home town, children rarely get to see their families again. Perhaps the heavy sadness I saw in Fei and Jie was part of the toll for being one of the planet's most skilled balance artists.

At one point in the interview, the coach said something to Jie and she popped into a handstand on a small platform, curling her legs and spine into a severe C shape. Then she proceeded to do body presses in this position, bending her arms as she lowered her body toward the floor. This feat takes enormous strength, yet she didn't look remotely like a bodybuilder. She knocked off several presses in a row, and I wondered aloud how

she could do this. The coach shrugged. I curled my arm into a strongman's bicep flex, pointing to her. For the first time, she giggled.

At the end of the interview, I asked the kids if they would demonstrate some tandem balance moves. Prompted by the coach, they took off their sweat shirts and Fei tossed his arms around a few times to warm up. Then he grasped Jie's hands and hoisted her easily over his head, where she did a handstand on his upraised arms. Then he proceeded to lower her down and press her up again several times, another impressive display of strength. Then Jie did something that stunned me. She transferred one of her hands to the top of Fei's head, then released her other hand from his grasp: a one-handed handstand supported only by his head. Fei made subtle corrections in balance with his neck and shoulders to keep her weight directly above him. His neck strained somewhat at the weight, but she held perfectly still. Then, after 15 seconds or so, he reached up for her hands and down she dropped with a thud.

Later, when I watched them in an actual performance, Fei was more active than he had been in front of me. With his sweats off and in an armless tunic, he looked much more muscular than he had before. As Jie maintained a handstand on his upstretched arms, he went from a standing position to a crouch to lying on his back on the floor, and back up again. I was so riveted by their performance that I barely managed to look at the acrobats performing in the other rings. I was struck by how few people in the audience applauded after the Chinese performed a balance stunt, as if no one could grasp the sublime difficulty of their moves. Or perhaps it was just the opposite: They were so dumbfounded by what they saw that a reverential silence was the only possible response.

In the hour before the performance began, I had watched another gifted hand balancer in a pre-show ritual called “Circus Adventure,” where kids get to meet and mingle with the performers. He was a clown named Gabor Hrisafis, a dwarf born in Hungary who stood four and a half feet tall. Dressed in his full clown outfit, he deftly grasped the low wire, about three feet off the ground, and jumped up into a handstand, which he maintained for about 15 seconds before dropping back to the ground.

Hrisafis was no ordinary balancer. For one thing, he had recently set a world record for the longest vertical jump in the handstand position. While working for the Moulin Rouge in Paris, television cameras whirring, he pushed up into a handstand on a special platform two meters high, with 12 steps leading down to the ground. He then launched off the platform, flying over the steps, and landed on the ground on his hands. It was hard to believe that his shortened limbs could absorb all the tremendous shock of a leap like that. But when I first met him, he was wearing a t-shirt and shorts, revealing the ripped musculature of a bantam body builder, thick through the shoulders and arms, with beefy thighs. I asked him what sort of weightlifting routine he did to have developed his body to such an extent, and he replied that he does nothing beyond practicing and performing his circus routines, which involve a lot of hand balancing.

Harold Davis, another small man with a sterling physique, was known for performing handstands on the wire—but with *one* hand. He had mastered handstands as a youth, becoming so adept that he could hop down flights of stairs using only one arm. An existing photograph of Davis demonstrates his phenomenal power and balance: Wearing only shoes and long pants, Davis is doing a one-armed handstand on a rope strung low

between two circus wagons. He is perfectly still, his free arm outstretched, his shoulder muscles taut and hard as an oak burl.

Like Wallenda, Davis survived his entire decade-long stint with Ringling Brothers. Many other wirewalkers had similarly long careers and lives. Blondin, the first person to wire walk across Niagara Falls, in 1859, worked until he was 70 and died in retirement five years later. During the same period that Blondin was making international headlines, a Canadian named William Hunt, using the stage name Great Farini, tried to steal some of Blondin's glory by parodying the master's feats over Niagara. After Blondin lugged a stove to the middle of the wire, 190 feet above the river, and cooked an omelet on it, Farini hefted a 100-lb. washing machine across, stopping long enough to clean a few handkerchiefs. Hunt, after a long career both as a wirewalker and trapeze artist, died of pneumonia at the age of 90. Before him there was Madame Saqui, another great French funambulist, with whom it was said Napoleon was in love. Famous throughout Europe in the mid 19th century, she fell on hard times late in her life, and was compelled by poverty to rope dance for audiences at the age of 71.

What is it about wirewalkers that allows them to make careers out of an activity that would land most of us in the hospital within seconds, and do it several times a day, day in and day out, for decades? And then maintain their cat-like agility and number of "lives" well into their old age? Do they offer any insights into how we ordinary people can achieve and sustain better balance throughout our lives?

Similarities between the lives of circus acrobats, especially Wallenda and Davis, provide a few clues. First, most of the performers started young, anywhere from 5 to 10. The story goes that when Davis was practicing in his back yard, walking on a low wire

suspended over the family's garden patch, the earth was littered with squashed vegetables. Of course, early and intense practice is probably the best way to learn any physical skill. Kids ought to get out and find different ways to challenge their balance. What they learn as children can form the basics of skills they can carry into their adult lives. But, importantly, the body has an amazing capacity to learn new things at almost any age. For older folks, it may take longer to learn new balance skills, but the payoff will come with improved equilibrium in any activity and greater security from falls.

Secondly, most circus acrobats were highly motivated to learn. In China, success in acrobatics holds the promise of financial security in a country beset by poverty. For both Wallenda and Davis, the alternative to being a professional acrobat was working in coal mines, which both men considered far more hazardous duty. Once they became accomplished wirewalkers, neither Davis nor Wallenda, at least early in their careers, could afford to fall, because neither used a safety net. Their concentration and focus was heightened by the overwhelming desire to stay glued to the wire. Granted, few people, other than those who plan to pursue a career in acrobatics, have this kind of motivation. The rest of us can stay focused on our less ambitious balance activities by considering the gracefulness and improved athletic performance we'll gain from them—or the consequences in old age of *not* sticking to them.

Both Davis and Wallenda used devices that gave them more stability as they performed. Like many highwire artists, Wallenda was fond of using a weighted balance bar, which pushed him down into the wire more firmly, and also increased what physicists call his rotational inertia—the tendency of an object to resist rotation, in this case the rotation of a performer's body off the wire. Rotational inertia increases in

proportion to how far the total mass of an object extends from its center of rotation. The farther the weighted ends of the pole are from the center of rotation (the performer), the harder it would be for the performer to fall. The same thing happens when, losing your balance on uneven terrain, you instinctively reach your arms to each side. You're improving your stability by increasing your rotational inertia. Hiking poles and canes can act as balancing devices in much the same way, with the added advantage of giving you another "leg" to stand on, another point of contact with the Earth.

Another stabilizing technique many wire walkers employ is simply taking small steps rather than big ones. This maintains their center of gravity over their feet, the most secure position. Any time your body mass isn't over your feet, the odds are higher that you'll tumble. Watch the gait of an infant who has just learned to walk, or an older person whose equilibrium is challenged, and you'll often see them taking small, shuffling steps. They both instinctively know that this puts them into a position of good balance. Top-level tennis players understand this too. The most agile and fleet-footed players take small, controlled steps as they move toward the ball, so they can be in a balanced position that allows them to hit the ball with maximum control and power. When your equilibrium is compromised, by old age, rough terrain, a physical disorder, or even wearing a heavy backpack, take small steps to stay balanced.

Perhaps the most salient lesson that circus acrobats have to teach is the necessity of practice. Not just the hours put in to learn the skills in the first place, but the discipline throughout one's life to keep body and mind tuned to the rigors of balanced movement. Wallenda practiced his art nearly every day, and kept his supreme balance skills until he made his last wire walk in 1978.

Harold Davis had even greater longevity. After retiring from all public appearances in the mid 1970s, he still practiced regularly on the high wire he erected in the backyard of his Sarasota, Florida, home. Each time he stepped out on the wire he risked his life, because even as a senior citizen he refused to use a safety net. Davis continued walking the wire every day—until he was diagnosed with a heart condition at the age of 79. Doctors ordered him to stay on the ground. Even so, according to his wife, in the final three years of his life he would climb up one of the support towers and just sit there watching the wire, awash in reverie. “I guess in his mind and his heart he didn’t want to quit,” she said.⁷ The Great Alzana died of natural causes in 2001, at the age of 83. In the next chapter I’ll talk about ways to uncoil your own inner Alzana.

¹ Croft-Cooke, *Circus: A World History*,

² *Ibid.*

³ Martin, “Great Alzana.”

⁴ Petyon, “He Just Loves,” p. 107

⁵ Morris, *Wallenda*, p. 29-34

⁶ At least not right away. Years later, other funambulists figured out how to perform similar tricks.

⁷ Martin, “Great Alzana.”