



The Irritant

"I gotta get out of this place!"

THE SCREAMS HOUNDED HIM. THEY FOLLOWED HIM EVERYWHERE, like stray dogs scuttling in and out of shadows. As if that were not enough, the shrieking voices were paired with images of contorted faces: muscles pulled tight from pain under blood-engorged skin stained with tears. The sights, sounds, and smells of human suffering gnawed at the edges of his mind like ravenous rats. Men, women, and children—they were all there. How he wished it were only a bad dream, but the voices and pictures were not fabrications. They were his own memories of real events.

Horace Wells was a wreck, and he knew it. As a dentist practicing in Hartford, Connecticut in the 1840s, there were days, even weeks, that he regretted his decision to practice dentistry. He vacillated with continuing, even though he had already made his mark on the profession at a young age. In 1838 at the age of twenty-three, he had already published *An Essay on Teeth* in which he described how teeth formed, how various ailments and diseases affected them, and

perhaps most importantly, how to prevent dental degeneration. His purpose in writing the essay was not that it serve as a “systematic work” but that it “impart...information respecting the human teeth, which should be familiar to the mind of every individual.”¹

Wells wanted to share his knowledge. He wanted to help people preserve their pearly whites and avoid the pain that accompanied dental disease. He advocated for a healthy diet and, for habitual oral care, the use of the toothbrush. At that time, people commonly cleaned their teeth using “chew sticks”—twigs with a frayed end on one side and a pointed end on the other. Although it was not a new concept, toothbrushes made with boar hair would not be mass-produced in the United States until the mid-1880s. Wells even came up with a motto to help people remember to take care of their teeth: “The clean tooth does not decay!”

Despite his love of dentistry and growing success in the field, Wells could not separate his ability to heal from the need to inflict pain. It was why he both loved and hated his profession. As a man of compassion and deep Christian faith, he was unable to overcome the trauma both he and his patients experienced as he treated them. Powerless to offer anything to offset pain, his patients bore the full sensation of tooth extractions. This led him to question his ability to continue his practice. He even stopped taking patients for short periods after especially dreadful procedures. *There had to be another way*, he thought.

Unacceptable

Horace Wells encountered what all pioneers face: an unacceptable status quo. Out of compassion, he could not turn away from his suffering patients any more than he could continue to carry out the methods that the science at the time taught as “best practices.” He was at an impasse with an intolerable scenario, an irritant so debilitating that it pushed him to consider the unimaginable—quitting.

By their very nature, irritants are no fun. While largely used to describe physical pain like inflammation, an irritant, by definition, can extend to causing mental or emotional aggravation or, in Wells’s

case, torment. As human beings designed to self-protect, we naturally move away from an irritant, or, if unable to avoid it, we search for ways to relieve it. If we can neither move away from it nor mitigate the pain it causes, we find ways to cope with it. Part of that coping is to begin to imagine a different reality and the ways we might remove or overcome the things that greatly pain us. We begin to think, with increasing determination, *Someday, if I had my way, I'd _____*, and we fill in the blank.

Consider the reasons some may give for a career choice or a career change. A girl grows up watching her younger sister battle cancer and stays by her side as she undergoes chemotherapy with the subsequent nausea and hair and weight loss. She later decides to pursue a career in cancer research, in hopes of helping to provide a cure for all she has seen, heard, and suffered alongside her sister. Or, a young person dreams of the security that a career in criminal law would provide. He attains his goal, yet as he matures, he begins to find his particular life course void of meaning. While he enjoys the latest gadgets, cars, and a fine home that his career affords him, he reconsiders his path. He then chooses to become a teacher, so he can invest in the lives of young people before they find they are in need of a lawyer.

Haley Wilk is a pioneer in process. The eldest child of two, what might have been a typical life trajectory altered when her younger brother, Derek, was born. In some ways, Derek was ahead of his time. At birth, the bones of his skull had already fused together—a condition called craniosynostosis. Skull bone fusion is a process that does not normally conclude until adolescence. For an infant, this condition is very serious. In that little body, the brain continues to develop and grow in size until about the age of two.² In Derek, with his skull bones already fused at the age of six months, the brain's growth would push against the inflexibility of his skull, creating a dangerous situation. As a result, Derek's prematurely fused skull bones needed to be separated through surgery.

Most children with craniosynostosis are born with a malformed skull, but cognitive development can proceed normally, and corrective measures are taken to reshape the skull. His mother Laurie recalls: "Haley and Derek would play as children often do at a very young

age, but one day, Derek's interaction with Haley just stopped. As a family, we knew that something had changed."³ Derek became more withdrawn. He began to experience frequent seizures. His speech did not develop. Testing placed him on the autistic scale, but questions remained. What were the root causes that troubled Derek?

Over two decades later, the Wilk family was offered the diagnosis of Lennox-Gastaut Syndrome (LGS) for Derek. While Laurie claims Derek does not fit every element of the profile, she believes that it is the best descriptor for his condition. As an epileptic disorder, it can leave children with learning, development, and behavioral problems. All seem to apply to Derek. After years of experimenting with different interventions, Laurie's fatigue is evident as she describes the ongoing failure to find a solution for her son.

He can read a little bit. He likes being social, but he doesn't talk. He still has the seizures. His EEGs have always been erratic. His brain is firing all over the place. Whether it is due to his craniosynostosis, I don't know. You're living with a lot of ambiguity when you go for all these tests and a cause is never found. We just got the Lennox-Gastaut Syndrome diagnosis last fall.... I don't think anyone knows, but they have to label it something.⁴

Haley's experience watching her brother Derek struggle played a significant role in her own development. She recalls how difficult it was to watch Derek have seizures. As therapists came in and out of their home, her childlike curiosity caused her to wonder how the differing qualities of each helper influenced her brother's situation. Haley recalls:

[As] I saw people work with him, I saw the theories and practices they brought to the table. It was fascinating to watch to see if they had a positive, negative, or neutral outcome. You could never tell what factors were at play. Was it the gender of the therapist? The pitch of the voice? The type of behavioral intervention used? Was there a change and what caused it? That was a driver for me because it fascinated me.⁵

Like many with a mentally challenged sibling, she became involved in Derek's care as she matured. These efforts, however, are never without emotion, and Haley experienced them alongside her parents: hope, disappointment, determination, and frustration. Out of their love for Derek, the Wilks refused to give up hope that something might be found to help improve his condition.

"But Derek never got better," Haley recalled. "He still had seizures. [That] was my irritant. So...my childhood experiences [eventually led] to...a psychology degree. When you're a student in this field, you're constantly studying the impact that different approaches have for people."

At one point in her academic career, Haley's curiosity and compassion ignited into a determined passion. If her own brother suffered without a solution, she reasoned, there were others like him. "When I opened my scope beyond my own personal lens and I looked past Derek, I saw an entire population of people who had some type of mental health challenge or issue who needed help. I also believed that pharmaceuticals aren't always the answer."⁶ But if not traditional interventions, what then?

Beyond the Possible

On December 10, 1844, Gardner Quincy Colton arrived in Hartford, Connecticut to offer a presentation on the effects of nitrous oxide, known today as laughing gas. It was a demonstration that was part science, part entertainment. Once a crowd had gathered, Colton would offer the gas to a local participant:

The gas used in these lectures by Dr. Colton was contained in a rubber bag, and was administered through a horrible wooden faucet, similar to the contraptions used in country cider barrels. It was given in quantities only sufficient to exhilarate or stimulate the subjects, and reacted upon them in divers and sundry ways. Some danced, some sang, others made impassioned orations, or indulged in serious arguments

with imaginary opponents, while in many instances the freaks of the subjects were amazing.⁷

On this particular evening in December, Horace Wells had come with his wife, Elizabeth, not so much for amusement but out of curiosity. A local clerk agreed to take the nitrous oxide and began to hallucinate to the delight of the crowd. He then imagined that a member of the crowd was an adversary. He sprang off the platform and began to run toward the man. Frightened at the sudden turn of events, the attendee jumped from his seat, hoping for safety with the clerk in pursuit. Around the auditorium they went until the effects of the gas wore off, leaving the frazzled spectator out of breath, the newly sobered clerk confused, and the crowd in hysterics. Upon taking his seat, the clerk curiously raised his pant leg, revealing a bloody gash in his leg inflicted while running under the influence. Horace Wells noticed. He wondered, if nitrous oxide could render the clerk unaware as he incurred that kind of injury, could it possibly be used to help his patients endure oral surgery without pain?

The only way he could be sure was to put it to the test at once—on himself. And why not? He had a bothersome wisdom tooth that he could do without. The next day, Wells arranged for an associate, Dr. Riggs, to extract the tooth, while Colton was to apply the gas. The trio realized that surgery required a greater amount of nitrous oxide to be effective. It wasn't enough for a patient to be intoxicated. He or she needed to be knocked out. No one knew what impact the larger dose would have. Riggs and Colton were hesitant, but Wells was adamant about proceeding. The surgery went forward and was successful, energizing Wells. Perhaps he had found the long sought-after answer for his impossible situation. Perhaps dental surgery and pain need not go together after all.

Exploring New Frontiers

As part of Haley Wilk's undergraduate studies, she took an internship at an equine assisted therapy center. There she learned the benefits

that people received as they worked to offset some of their physical challenges through working with horses: “Therapeutic riding is usually done mounted, and it was found that it was closely related to physical therapy. They found that the horse’s gait closely relates to the human gait. For veterans, if there was any type of physical injury therapy that happened, they would put them on the horse and the horse would act as an agent for their rehabilitation.”⁸

In fact, this is just what happened for Lis Hartel. A Danish pioneer in her own right, she contracted polio at age twenty-three while expecting her second child. Despite almost complete paralysis, Lis was determined to do what she could to regain her strength and resume horseback riding. With the encouragement of her husband and mother, she recovered enough to be able to ride again, though she remained paralyzed from the knees down and had to be lifted onto her horse. Her efforts paid off. Only three years after her illness, she was competing again. In the 1952 Olympics held in Helsinki, Lis was one of three who, for the first time, were allowed to compete as women and civilians alongside military men in dressage. She received the silver medal for Denmark and revealed how horseback riding helped her in her recovery from polio.

Lis went on to place in more competitions, including earning another silver medal in the 1956 Olympics, but as her renown increased, so did awareness of hippotherapy, or therapy with horses. Lis went on to help create the first therapeutic riding center in Europe when early principles of modern-age hippotherapy began to develop. This form of care would finally arrive in North America in the late 1980s.⁹

Today, Haley Wilk works at a facility called Gaits of Harmony in Ashaway, Rhode Island. Though she currently supports herself full-time as an intake coordinator at a counseling center, she eventually hopes to serve full-time in the field, blazing a pioneering trail as a certified equine specialist in mental health and learning (ESMHL). Already she is making her mark in the southeastern New England area, a region that has yet to experience a fuller spectrum of horse-assisted therapy for those with mental health challenges. Haley reflects:

The mental health branches of equine therapy are [still] more limited, more recent; maybe over the last couple of decades. Just to show you how narrow equine mental health therapy is, in Rhode Island there are only two women who have the ESMHL certification that I do that would allow a mental health branch to flourish. Today, a program offering equine therapy for mental health would be a first at GAIT.¹⁰

Developing a Vision

Like many mission-driven pioneers, simply to be the first or an early adopter of something is not enough. A stream of passion courses through them to benefit the larger good. Horace Wells desperately wanted his patients to experience the benefits of healthy oral hygiene, and when they needed dental work done, he envisioned a future in which it could be done as comfortably as possible. This is the definition of “vision”: an imagined future that has yet to be achieved. Furthermore, facets of the vision must be “attractive, realistic and believable,” even though the vision’s full attainment has not yet been realized.¹¹ These components continue to fuel the fire of the pioneer’s passion, especially when outward circumstances suggest the fulfillment of the vision may prove unlikely. It is important that pioneers begin to shape and define their visions as concretely as possible, so that in seeking them, they will know when the vision succeeds in actually becoming a reality. The clearer and more well defined the vision, the easier it will be to communicate and pass along the excitement for it to others.

Even at a young age, Haley has thought much about her involvement in a preferred future: how she would get there, and whom the primary and secondary beneficiaries in society might be.

My dream is definitely to run my own farm someday. Own it, run it, staff it, make it a corporation. I’d love to see these types of equine therapeutic centers across the country, but I would want them to be research-

based, with best practices. I would like to see it taken seriously so that there is backing and support behind it. In general, I would want others to realize the positive impact, and that it could offer a cheaper and quicker option for people than traditional therapy.

Spreading awareness of more effective techniques also would have a positive effect on other areas of a person's life. In the end, this means that you are freeing up resources for other issues in the culture that need funding. For example, there would be more money freed up to help cancer patients: more money, more time. In addition, we cannot ignore that when you're improving the mental health of an entire segment, that they are capable of becoming more effective members of society in other areas.¹²

All of this found its nascence in the heart of a little girl who had suffered alongside her brother and felt incapable of helping him find relief.

Defining a vision to overcome an irritant is the first step in pioneering. It is an important beginning in advancing toward undiscovered country.

Points for Your Compass

- ➔ An irritant, or unacceptable status quo, can drive an emerging pioneer to envision an improved future, beckoning her to become the leading agent who will overcome the irritant.
- ➔ Hope and passion fuel the pioneer's efforts, as resisting forces (including personal emotions like disappointment, doubt, and frustration) battle the positive change the pioneer is trying to create.
- ➔ A pioneer's applied determination creates efforts, some risky, that further advance and define his vision, even when outward circumstances suggest the fulfillment of the vision may prove unlikely (such as when Dr. Wells tested nitrous oxide on himself).

- ➔ Once clarified, the pioneer's vision must be easily, realistically, and attractively communicated so as to draw and involve others to participate in the new reality.