

Reason and Faith Series

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In the last five years or so I have bumped into a tension between reason and faith – bumped into hard and repeatedly.

There are a few lines in the Billy Joel song River of Dreams that we just heard that resonate for me: “I’m searching for something, something so undefined it can only be seen by the eyes of the blind in the middle of the night? I’m not sure about life after this, God knows I’ve never been a spiritual man, baptized by the fire I go walking into the river that is running through the promised land.”

This is an abbreviated story about where I have been walking in the middle of my nights, searching.

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As some of you know, I was told that I had a stage III metastatic cancer in my left breast and lymph nodes five days after I returned from sabbatical in Aug 2005. Metastatic means that the cancer cells have gone renegade, they’ve left the tumor and are moving around the body. This is a very dangerous place to be and I was lucky that the wheels of

the medical establishment moved really fast. At the end of only a week I was in chemotherapy.

Over the next nine months I had chemo, surgery to remove the tumor and nodes, another round of chemo, radiation and yet more chemo.

A few months after the treatments ended, I learned I carry a BRCA1 mutation. This meant I didn't just have to worry about the same cancer returning, but that I was also at high risk for a second new tumor arising. As a result of that status, I elected to have a total hysterectomy and double mastectomy to remove all of the most dangerous tissue. This took another nine months and involved another 3 surgeries.

That's the medical outline against which things happened.

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I am a typical academic: I rely a great deal on my reason. I'm most comfortable thinking, explaining, dissecting and understanding. So, when cancer hit, I turned to biology to help me figure out how to survive.

All organisms have a survival response, what Rachel Naomi Remen called "an irrepressible love of life buried in the heart of every living thing." Bacteria have such

responses -- whether they are enzymes that protect the single celled organisms from viruses; or capsules the bacteria make to protect them from unfriendly environments.

Plants, too respond to threats on their lives. They secrete distasteful ooze to deter feeding on their leaves and close their gas-exchange pores during dry periods to minimize water loss. My favorite is that plant cells shuffle around their photosynthesizing organelles when light is too bright to help prevent a botanical equivalent of sunburn.

And of course animals have defense responses: claws and stingers and teeth are often familiar from childhood experiences. I still remember the PBS show about the beetles that literally shoot acid from their behinds when they are attacked.

In vertebrates like ourselves, the survival response manifests in part as the release of hormones that jazz up the body to run or fight. Heart and breathing rates increase, muscles become primed, sensory perception becomes more acute, and reflexes are faster. We assess a situation in an instant, without thinking, and then flee or stand our ground. When cancer hit me, my automatic survival response kicked into full gear; this is part of what got me into chemo within a week.

All these reactions evolved so that when their organism is faced with a threat, that organism can respond automatically to save its life. At its most fundamental level the survival response is embedded in our DNA and manifested in our physiology. So I think of nature as providing the hard-wiring.

But it turns out for humans that *nurture* is important too. Our individual responses to threats on our lives are shaped by the uniqueness of who we are. Our health, family presence, religious beliefs, and financial resources are just a few of the specifics that either boost or diminish our responses. Nature lays the foundation for the defense mechanisms but our environments and circumstances make each one unique.

I knew from the scientific literature that I could do things to put nurture on my side too. So I went looking for ways to strengthen the life within me. This is my reason at work.

One of those things is positive thinking -- how patients think about their illness matters. Having an optimistic attitude does not guarantee a positive outcome for disease or trauma or crisis, but how and what we think does make a difference. I got very intentional.

I knew that trust in my doctors and treatment was important so I picked a medical team that matched my needs well. I consciously created spaces in which my life where I was surrounded by things representing long-livedness: a quilt made by a 70 yr old gentleman with Parkinsons, and a pile of rocks rounded by ocean's waves over eons. Laughter is supposed to help healing so I watched comedies and collected jokes. Visualization has also been shown to be important so I saw myself as Xena, Warrior Princess as went into chemo. I worked hard to cut unnecessary stress out of my life --- like waiting in line at the pharmacy or grocery. I looked for silver linings – surgeries were a chance to material

for training my dog and my hair loss was a chance for new accessories. And ... I got a great therapist. In short, I worked hard at thinking positively in as many ways as I could.

Early in my journey with cancer, I was also gifted the book Kitchen Table Wisdom by Rachel Naomi Remen. An underlying theme in the book, as you heard in the readings, is how illness can be a gift in one's life *if you chose to see it that way*. In Bonnie Raitt's words: whether your sun glasses are off or on, you only see the world you make. So, I became intentional at framing things that way as well – cancer brought me closer to my friends, it made me a better teacher, it helped me see how precious each day is. It has since been the thing that sent me on a sailing adventure from Halifax Nova Scotia to Newfoundland and on a 5-day dog sledding trip in the boundary waters.

This book too would move me towards resolving my tension between reason and faith – but I am getting ahead of myself.

As much as my brain knew how important staying positive was, sustaining that positive outlook was another matter. Cancer and the treatments took incredible tolls on every part of 'normal' life. Changes in taste and smell took away long-standing comforts such as gravy on mashed potatoes and made minor tasks like filling the car with gasoline battles against vomiting. Exhaustion and fatigue reigned. The energy it took to cook dinner was measured against what it would take to shower. Feeling defeated came easily. Emotional numbness, fear, anxiety, sleep disruptions, these all added to my debilitation.

There were days I did not even have the energy to *think*, much less think positively. How does someone sustain herself in the face of these crushing realities? I couldn't.

And here again my science, my brain, my reason, helped me. Studies have shown that the act of doing can stimulate the very neuronal pathways that are involved in feeling. So when I couldn't think positively I faked it. I got out of bed, even if only for a few minutes. I walked the dogs even if it was just around the yard a couple of times. I sat outside on supposedly fine days even when I couldn't appreciate the beauty of the cloudless sky. I painted my toenails. I felt like doing none of these things but I did them anyway.

In the thick of it, my positive thinking, even faking positive thinking worked, not every day but at least some days.

So as you can hear, my reason was a powerful ally. All my work on my thinking patterns did something else for me – it re-enforced something inside of me that was beyond my reason, some awesome power. That something was my life force or as I think of it my spirit.

That force, that spirit has as much to do with why I am alive today as my reason. – I know this in part because of two episodes.

The first occurred in mid October, 2005 about 10 weeks into my treatment. I got up one Sunday morning and hung clothes on the line. A few hours later when I went to retrieve them because it was going to rain, I collapsed on the lawn at my rental in Cambridge City. I fell to the ground unconscious. I came around to one of my dogs licking my face. I made it into the house and called friends who then got to me and got me to the hospital in time. It turned out I suffered a response to one of the drugs I was taking. The drug caused an over activation of my immune system which caused my lungs filled up with fluid – technically this is called pneumonitis. I was not getting enough oxygen and was drowning. It took the doctors time to figure out what was happening and I spent three or four days pretty much hanging on by a few breaths, quite literally. At that time, I didn't think too much then about what kept me alive but my reason was doing very little for me during this time.

Then, in the summer and fall of 2007, another crisis hit me. And as with the pneumonitis, I came close, oh so close to dying. This time by my own hand – my plan was to drive my truck into a concrete support of an over pass somewhere along the 102, a highway in Nova Scotia.

Here I was again with a debilitated brain. The first time around, my brain was getting no oxygen and was hypoxic. This time around it was a chemical imbalance called depression – a demon I have fought all of my life.

And again, it was phone calls to friends at my weakest moments that kept me alive.

Other people experience crises of faith; I was in a deep crisis of reason.

When I got back to the states, I began to attend to the depression -- seeing my therapist and changing my drug regime. I also took a leave of absence.

It was during that leave of absence, as I got better, digging in the dirt and making a garden in my back yard, I really began to ponder what had kept me alive when I was so very close to death on those two occasions. And for that matter what got me through a cancer to which many women lose their lives? What were the promises I had to keep? What were the miles I still had to go? (A reading had been Stopping by Woods on a Snowy Evening by Robert Frost.) It was clear to me that it had not been my reason that kept me alive; my brain was not working!

And this is where I come back to Naomi Remen's idea of a life force – my idea of a life spirit; An enthusiasm for living. Something she called “coherent, elegant, mysterious, aesthetic.” And of course, I started to understand, dissect, think.

This is where I've come to so far. It is a solution that works for me – one that is highly personal and – utterly consistent with whom I am – a woman that spends an incredible amount of time in her head. I am still in process on it.

One of the truly amazing things about human biology is the role our mind (not just our brain) plays in who we are and how we respond. Because we are able to contemplate ourselves in relation to our lives and the future, *what* we think is important. Our thoughts and reflections shape our brain. It is a sort of Heisenberg principle of uncertainty applied to neuroscience: just thinking about the situation changes brain chemistry.

All that positive thinking, quite literally trained my brain and shaping my mind. By thinking positively, I was building well traveled neural routes that attached me to life. In those moments when my brain was not working, I think it was these pathways that kicked in. These pathways were so strong, so engrained, that kept me holding on.

And for me, this is where reason meets faith – patterns of thoughts and behaviors, patterns in the mind (not just the brain) that create something that is bigger than what we are every day. I think of these as my life force, my life spirit.

I try now to let my life spirit have a little bit of every day. It is important for me to keep it strong. I know it consciously as a place where I am calm and serene, where life feels good no matter what else is happening. It is a deep satisfaction and a wholeness. It is a place of no fear.

I want to conclude by going back to the bag of gold dropped in my life -- cancer. One of the greatest gifts that it has given me is the chance to experience my life spirit. This

knowledge is now deeply rooted in my biology, it is integral to my being. I don't need my reason to explain it, dissect it. I can just live it.