Pain: God's Just-Right Tool

I wrote this blog post on May 7, 2012. When I ran it again almost five years later, I added this introduction:

Not quite five years ago, when I originally wrote this, I had no idea that by this point, I would hardly be walking, using a scooter 95% of the time and unable to move without a walker for the rest. Pain and serious weakness are my daily companions. As I noticed the counts on my most popular blog posts and discovered this one among the top, I am grateful that the wisdom God gave me five years ago is even more true today. And I am grateful that I can even minister to myself.

It's now almost ten years later, and I certainly had no idea that by THIS point, the Lord would have so incredibly graciously allowed me to have had both hips replaced so that I live free from pain. Never, ever saw that coming. But I also know that this is a sweet but temporary season, as I keep getting older and the late effects of polio continue to threaten. So I live with a deep sense of gratitude for this season of respite, knowing that any point I may be forced to re-enter the place of pain.

"You know, you're like the Martha Stewart of kitchen gadgets and tools," my friend observed as she unloaded our dishwasher. "You've got stuff I never knew existed."



I really do like having just-right tools. I only use my cherry pitter during cherry season, but it's perfect for the job. I don't use my electric knife sharpener every day, but when I do pull it out to put a finely honed edge on a knife, it brings

joy to my culinary tasks. I love being able to chop up nuts in my food chopper in no time flat—and no mess. Tools like these are a reason I enjoy cooking and baking.

Once as I was using a razor blade holder to scrape paint off the windows on our garage door, I said, “Thanks, Lord, for the blessing of a just-right tool.” I sensed Him say, “Do you think it’s any different for Me? I enjoy having the just-right tool in My hand as well.” At the time I got the impression He was talking about using us as instruments of grace and blessing in His hand, but lately I’ve become aware of a different kind of just-right tool in God’s hand.

Pain.

Physical pain, emotional pain, the pain of trials and suffering of all kinds. Pain is an incredibly effective tool to achieve God’s purposes in our lives: transforming His children into the image of His Son Jesus, tearing down strongholds that keep us from being all that He made us to be, restoring what was lost in the Fall.



Since God has no magic wand and no Easy button (that’s only for Staples commercials), He has to use other means to accomplish the considerable task of changing people who are far more broken and messy and less than we were created to be, into the people He intended us to be from the beginning.

Some of the just-right tools I have personally seen in God’s hands:

George and Pam (not their real names) found the wheels coming

off their lives when they learned their middle-schooler was doing drugs, followed shortly by dealing them. Though they were faithful church attenders, neither of them actually knew Jesus. They were directed to a grace-drenched, gospel-preaching church where they both trusted Christ and everything changed. George told me recently that as he had learned, "Suffering keeps us from the delusion of self-sufficiency. This delusion was my main problem. When the sufferings of my failure as a husband, father and man became crushing, I surrendered." They are now leaders in several ministries at their church.

Jennifer Clouse's second battle with cancer, which she shares generously via her blog and her friendships with about a gazillion people. Jen is teaching many people what the grace of humor looks like from inside a cancer diagnosis that moves her closer to heaven every day. Her ability to see God in everything is as instructive as when she stood before women teaching the Word. (Note: Jennifer has been with the Lord since 2016.)

Barbara Baker is a missionary in Mexico whose desire to minister to people is far greater than her body's ability to support it. As her frailty and weakness grows, so do her limitations. When Ray and I visited Barbara and Jonathan in Puebla last year, I saw what happens when the diameter of a spotlight is reduced; it becomes like a laser! Barbara's physical limitations mean that the things she *is* able to participate in are that much more valuable, that much more grace-filled. Her light is that much more concentrated.

Holly Loughlin has been fighting Cystic Fibrosis her whole life, which has now reached what used to be the upper limit for CF patients. On her most recent hospitalization, she started daily blogging what life was like for her, and I absolutely loved what she wrote on Day 10:

"The Lord is always in the business of redeeming. Sometimes

I see that so clearly here. Everyone gushes about what a great CF patient I am and they are all eager to introduce me other CFers who are struggling because of my hope and outlook and work ethic. But, I wasn't always like this. I went through 3 really rough years where I refused to do anything that had anything to do with CF. I didn't take any pills, do any treatments, or even eat the way I was supposed to. All of those things felt like chains that held me at the mercy of CF. I suffered needlessly and went in the hospital many more times than was actually necessary during those years, but the Lord was gracious and allowed me to survive it. Somewhere around the time I went off to UNT at 18 I realized that CF wasn't something I was going to be able to escape, no matter how I lived and that I had been given a specific set of tools that, if anything could, would help me achieve the goals and dreams I had for my life. I realized that eating, sleeping, doing my treatments and taking my pills were the things that were going to give me the best shot at having a great life.

"I had no idea then how great my life was going to be one day. Some of my dreams didn't come true. I had to give them up because my body just wouldn't accomplish them no matter what I did, but the Lord was so gracious to give me new dreams, better dreams. And here I am 20 years later with the best husband anyone could dream up, a daughter more amazing than I could ever have imagined, and a lot of life still ahead of me. That's our God. He loves to gives His children good gifts. He loves to be called upon. He loves to surprise us when we least expect it. And I'm thankful that He is even now using the folly of those years so long ago to reach out and give hope and encouragement to others.

"I could never have imagined that I would be sitting up in the hospital at this age being the go-to person for giving hope, love, and light to people who are as lost in the weeds of CF now as I was then. I'm so thankful that the Lord has

> let me live to see this, to be this. I know how much I would've given to have had someone for me like I am able to be for these folks."

Daniel and Kelly Crawford received the devastating news that their unborn son Abel had Trisomy18, a genetic condition incompatible with life. Shortly after he was born, they wrote on their blog,

> "[W]e've been living in this challenging tension since last July… a total inability to control or manipulate an outcome, which forces you to make a decision: we can fall headlong into depression & despair, or we can return to the promises of the Faithful One.
>
> "So just as we've tried to do all along, we want to live out Psalm 143:8 and remind ourselves of God's steadfast trustworthiness every morning. We want to cling to 2 Corinthians 4:16-18, setting our gaze on our great eternal Hope amidst affliction. And we want to remember James 4:14-15, seizing every precious hour of every precious day and knowing that even you & I are never guaranteed tomorrow.
>
> "God's sovereignty is something I have subscribed to wholeheartedly for a good long while, but you really 'put your money where your mouth is' in these scenarios that truly are out of your hands."

Their precious little boy lived for 15 days before slipping out of his mama's arms into Jesus' arms. The just-right tool of Trisomy18 was what God used to fulfill what the Crawfords confidently told the thousands of people who prayed and wept and followed their story: "The ultimate plan and purpose for Abel's life (and our life) is to glorify the Glorious One." And he did.

And then there's me.

Advanced arthritis on top of Post-Polio Syndrome means I now

need a walker instead of just a cane to walk and stand. Most steps hurt. Two ortho docs have said I will need both hips replaced, but post-surgery rehabbing is questionable when one of my legs is basically worthless. Could this be a just-right tool in God's hand?

I choose to believe it is. Every day I have the choice to remember and give thanks that ***a good and loving God is in control.*** I've always lived with a lot on my plate, but He has allowed my "plate" to get smaller. As I upgraded to a walker, I downgraded from a dinner plate to a bread plate. Like Barbara, limitations abound and I have to check with the Lord: what do *You* want me to do?

I have seen God do some marvelous things in my family through this new challenge. He is good. I may be falling apart on the outside, but my "inner man" is more vibrant than ever, as long as I cling to the truth that God is good.

My new life verse is 2 Corinthians 4:16-18—

> Therefore we do not despair, but even if our physical body is wearing way, our inner person is being renewed day by day. For our momentary, light suffering is producing for us an eternal weight of glory far beyond all comparison because we are not looking at what can be seen but at what cannot be seen. For what can be seen is temporary, but what cannot be seen is eternal.

That's my story and I'm sticking with it.

This blog post last appeared at blogs.bible.org/engage/sue_bohlin/pain_gods_just-right_toolon May 31, 2016.

Human Genetic Engineering

Although much has occurred in this field since this article was written in 2000, the questions addressed by Dr. Bohlin are still timely and relevant. Is manipulating our genetic code simply a tool or does it deal with deeper issues? Dealing with genetic engineering must be done within the context of the broader ethical and theological issues involved. In the article, Dr. Bohlin provides an excellent summary driven from his biblical worldview perspective.

What forms of genetic engineering can be done in human beings?

Genetic technology harbors the potential to change the human species forever. The soon to be completed Human Genome Project will empower genetic scientists with a human biological instruction book. The genes in all our cells contain the code for proteins that provide the structure and function to all our tissues and organs. Knowing this complete code will open new horizons for treating and perhaps curing diseases that have remained mysteries for millennia. But along with the commendable and compassionate use of genetic technology comes the specter of both shadowy purposes and malevolent aims.

For some, the potential for misuse is reason enough for closing the door completely—the benefits just aren't worth the risks. In this article, I'd like to explore the application of genetic technology to human beings and apply biblical wisdom to the eventual ethical quagmires that are not very far away. In this section we'll investigate the various ways humans can be engineered.

Since we have introduced foreign genes into the embryos of

mice, cows, sheep, and pigs for years, there's no technological reason to suggest that it can't be done in humans too. Currently, there are two ways of pursuing gene transfer. One is simply to attempt to alleviate the symptoms of a genetic disease. This entails gene therapy, attempting to transfer the normal gene into only those tissues most affected by the disease. For instance, bronchial infections are the major cause of early death for patients with cystic fibrosis (CF). The lungs of CF patients produce thick mucus that provides a great growth medium for bacteria and viruses. If the normal gene can be inserted in to the cells of the lungs, perhaps both the quality and quantity of their life can be enhanced. But this is not a complete cure and they will still pass the CF gene on to their children.

In order to cure a genetic illness, the defective gene must be replaced throughout the body. If the genetic defect is detected in an early embryo, it's possible to add the gene at this stage, allowing the normal gene to be present in all tissues including reproductive tissues. This technique has been used to add foreign genes to mice, sheep, pigs, and cows.

However, at present, no laboratory is known to be attempting this well-developed technology in humans. Princeton molecular biologist Lee Silver offers two reasons.{1} First, even in animals, it only works 50% of the time. Second, even when successful, about 5% of the time, the new gene gets placed in the middle of an existing gene, creating a new mutation. Currently these odds are not acceptable to scientists and especially potential clients hoping for genetic engineering of their offspring. But these are only problems of technique. It's reasonable to assume that these difficulties can be overcome with further research.

Should genetic engineering be used for

curing genetic diseases?

The primary use for human genetic engineering concerns the curing of genetic disease. But even this should be approached cautiously. Certainly within a Christian worldview, relieving suffering wherever possible is to walk in Jesus' footsteps. But what diseases? How far should our ability to interfere in life be allowed to go? So far gene therapy is primarily tested for debilitating and ultimately fatal diseases such as cystic fibrosis.

The first gene therapy trial in humans corrected a life-threatening immune disorder in a two-year-old girl who, now ten years later, is doing well. The gene therapy required dozens of applications but has saved the family from a $60,000 per year bill for necessary drug treatment without the gene therapy.{2} Recently, sixteen heart disease patients, who were literally waiting for death, received a solution containing copies of a gene that triggers blood vessel growth by injection straight into the heart. By growing new blood vessels around clogged arteries, all sixteen showed improvement and six were completely relieved of pain.

In each of these cases, gene therapy was performed as a last resort for a fatal condition. This seems to easily fall within the medical boundaries of seeking to cure while at the same time causing no harm. The problem will arise when gene therapy will be sought to alleviate a condition that is less than life-threatening and perhaps considered by some to simply be one of life's inconveniences, such as a gene that may offer resistance to AIDS or may enhance memory. Such genes are known now and many are suggesting that these goals will and should be available for gene therapy.

The most troublesome aspect of gene therapy has been determining the best method of delivering the gene to the right cells and enticing them to incorporate the gene into the cell's chromosomes. Most researchers have used crippled forms

of viruses that naturally incorporate their genes into cells. The entire field of gene therapy was dealt a severe setback in September 1999 upon the death of Jesse Gelsinger who had undergone gene therapy for an inherited enzyme deficiency at the University of Pennsylvania.{3} Jesse apparently suffered a severe immune reaction and died four days after being injected with the engineered virus.

The same virus vector had been used safely in thousands of other trials, but in this case, after releasing stacks of clinical data and answering questions for two days, the researchers didn't fully understand what had gone wrong.{4} Other institutions were also found to have failed to file immediate reports as required of serious adverse events in their trials, prompting a congressional review.{5} All this should indicate that the answers to the technical problems of gene therapy have not been answered and progress will be slowed as guidelines and reporting procedures are studied and reevaluated.

Will correcting my genetic problem, prevent it in my descendants?

The simple answer is no, at least for the foreseeable future. Gene therapy currently targets existing tissue in a existing child or adult. This may alleviate or eliminate symptoms in that individual, but will not affect future children. To accomplish a correction for future generations, gene therapy would need to target the germ cells, the sperm and egg. This poses numerous technical problems at the present time. There is also a very real concern about making genetic decisions for future generations without their consent.

Some would seek to get around these difficulties by performing gene therapy in early embryos before tissue differentiation has taken place. This would allow the new gene to be incorporated into all tissues, including reproductive organs.

However, this process does nothing to alleviate the condition of those already suffering from genetic disease. Also, as mentioned earlier this week, this procedure would put embryos at unacceptable risk due to the inherent rate of failure and potential damage to the embryo.

Another way to affect germ line gene therapy would involve a combination of gene therapy and cloning.{6} An embryo, fertilized *in vitro*, from the sperm and egg of a couple at risk for sickle-cell anemia, for example, could be tested for the sickle-cell gene. If the embryo tests positive, cells could be removed from this early embryo and grown in culture. Then the normal hemoglobin gene would be added to these cultured cells.

If the technique for human cloning could be perfected, then one of these cells could be cloned to create a new individual. If the cloning were successful, the resulting baby would be an identical twin of the original embryo, only with the sickle-cell gene replaced with the normal hemoglobin gene. This would result in a normal healthy baby. Unfortunately, the initial embryo was sacrificed to allow the engineering of its identical twin, an ethically unacceptable trade-off.

So what we have seen, is that even human gene therapy is not a long-term solution, but a temporary and individual one. But even in condoning the use of gene therapy for therapeutic ends, we need to be careful that those for whom gene therapy is unavailable either for ethical or monetary reasons, don't get pushed aside. It would be easy to shun those with uncorrected defects as less than desirable or even less than human. There is, indeed, much to think about.

Should genetic engineering be used to produce super-humans?

The possibility of someone or some government utilizing the new tools of genetic engineering to create a superior race of

humans must at least be considered. We need to emphasize, however, that we simply do not know what genetic factors determine popularly desired traits such as athletic ability, intelligence, appearance and personality. For sure, each of these has a significant component that may be available for genetic manipulation, but it's safe to say that our knowledge of each of these traits is in its infancy.

Even as knowledge of these areas grows, other genetic qualities may prevent their engineering. So far, few genes have only a single application in the body. Most genes are found to have multiple effects, sometimes in different tissues. Therefore, to engineer a gene for enhancement of a particular trait—say memory—may inadvertently cause increased susceptibility to drug addiction.

But what if in the next 50 to 100 years, many of these unknowns can be anticipated and engineering for advantageous traits becomes possible. What can we expect? Our concern is that without a redirection of the worldview of the culture, there will be a growing propensity to want to take over the evolution of the human species. The many people see it, we are simply upright, large-brained apes. There is no such thing as an independent mind. Our mind becomes simply a physical construct of the brain. While the brain is certainly complicated and our level of understanding of its intricate machinery grows daily, some hope that in the future we may comprehend enough to change who and what we are as a species in order to meet the future demands of survival.

Edward O. Wilson, a Harvard entomologist, believes that we will soon be faced with difficult genetic dilemmas. Because of expected advances in gene therapy, we will not only be able to eliminate or at least alleviate genetic disease, we may be able to enhance certain human abilities such as mathematics or verbal ability. He says, "Soon we must look deep within ourselves and decide what we wish to become."{7} As early as 1978, Wilson reflected on our eventual need to "decide how

human we wish to remain."{8}

Surprisingly, Wilson predicts that future generations will opt only for repair of disabling disease and stop short of genetic enhancements. His only rationale however, is a question. "Why should a species give up the defining core of its existence, built by millions of years of biological trial and error?"{9} Wilson is naively optimistic. There are loud voices already claiming that man can intentionally engineer our "evolutionary" future better than chance mutations and natural selection. The time to change the course of this slow train to destruction is now, not later.

Should I be able to determine the sex of my child?

Many of the questions surrounding the ethical use of genetic engineering practices are difficult to answer with a simple yes or no. This is one of them. The answer revolves around the method used to determine the sex selection and the timing of the selection itself.

For instance, if the sex of a fetus is determined and deemed undesirable, it can only be rectified by termination of the embryo or fetus, either in the lab or in the womb by abortion. There is every reason to prohibit this process. First, an innocent life has been sacrificed. The principle of the sanctity of human life demands that a new innocent life not be killed for any reason apart from saving the life of the mother. Second, even in this country where abortion is legal, one would hope that restrictions would be put in place to prevent the taking of a life simply because it's the wrong sex.

However, procedures do exist that can separate sperm that carry the Y chromosome from those that carry the X chromosome. Eggs fertilized by sperm carrying the Y will be male, and eggs fertilized by sperm carrying the X will be female. If the

sperm sample used to fertilize an egg has been selected for the Y chromosome, you simply increase the odds of having a boy (~90%) over a girl. So long as the couple is willing to accept either a boy or girl and will not discard the embryo or abort the baby if it's the wrong sex, it's difficult to say that such a procedure should be prohibited.

One reason to utilize this procedure is to reduce the risk of a sex-linked genetic disease. Color-blindness, hemophilia, and fragile X syndrome can be due to mutations on the X chromosome. Therefore, males (with only one X chromosome) are much more likely to suffer from these traits when either the mother is a carrier or the father is affected. (In females, the second X chromosome will usually carry the normal gene, masking the mutated gene on the other X chromosome.) Selecting for a girl by sperm selection greatly reduces the possibility of having a child with either of these genetic diseases. Again, it's difficult to argue against the desire to reduce suffering when a life has not been forfeited.

But we must ask, is sex determination by sperm selection *wise?* A couple that already has a boy and simply wants a girl to balance their family, seems innocent enough. But why is this important? What fuels this desire? It's dangerous to take more and more control over our lives and leave the sovereignty of God far behind. This isn't a situation of life and death or even reducing suffering.

But while it may be difficult to find anything seriously wrong with sex selection, it's also difficult to find anything good about it. Even when the purpose may be to avoid a sex-linked disease, we run the risk of communicating to others affected by these diseases that because they *could* have been avoided, their life is somehow less valuable. So while it may not be prudent to prohibit such practices, it certainly should not be approached casually either.

Notes

1. Lee Silver, *Remaking Eden: Cloning and Beyond in a Brave New World*, New York, NY: Avon Books, p. 230-231.
2. Leon Jaroff, Success stories, *Time*, 11 January 1999, p. 72-73.
3. Sally Lehrman, Virus treatment questioned after gene therapy death, *Nature* Vol. 401 (7 October 1999): 517-518.
4. Eliot Marshall, Gene therapy death prompts review of adenovirus vector, *Science* Vol. 286 (17 December 1999): 2244-2245.
5. Meredith Wadman, NIH under fire over gene-therapy trials, *Nature* Vol. 403 (20 January 1999): 237.
6. Steve Mirsky and John Rennie, What cloning means for gene therapy, *Scientific American*, June 1997, p. 122-123.
7. Ibid., p. 277.
8. Edward Wilson, O*n Human Nature*, Cambridge, Mass.: Harvard University Press, p. 6.
9. E. Wilson, *Consilience*, p. 277.

©2000 Probe Ministries