

Sunday March 30, 2014

Tinkering with the human body

By Jim Taylor

I've had an artificial elbow for one year. On April 1 last year, I fell off a six-foot retaining wall in our garden, shattering my left elbow. The surgeon who cleaned out the bone fragments and installed a titanium joint called it "the worst elbow I've ever worked on." But perhaps he was just trying to make me feel better.

Despite six months of physiotherapy and exercises, my left arm still does not work as well as it once did. Not that I'm complaining, mind you. I remember the sheer delight of being able to towel my back again after a shower. Of doing up my own shirt buttons. Of signing my name (I'm left handed), and using a computer keyboard.

If I'd had that accident 50 years earlier, I would probably have a permanently disabled arm.

Medical science is indeed wonderful. But medical science also raises some serious ethical questions.

For some people, artificial body parts work better than natural ones.

Two unrelated examples

Oscar Pistorius is currently on trial in South Africa for the killing of his girlfriend Reeva Steencamp. But previously he had gained world renown as the "bladerunner," the first double amputee to compete in both the Olympics and the Paralympics.

The International Association of Athletics Federations, the governing body for track and field sports, opposed Pistorius's eligibility because they feared his carbon fibre lower limbs might give him an unfair advantage.

It's not possible to compare Pistorius's performance before and after getting his artificial limbs, because he lost his legs at the age of 11.

In another example, though, Hugh Herr lost both legs below the knees to frostbite while climbing a mountain. Today, his company produces bionic ankles. Herr has three different sets of prosthetic feet and ankles, for different purposes.

After demonstrating his ability to climb a rock wall for a Smithsonian documentary, *The Incredible Bionic Man*, Herr stated, "Would I wish my legs back? Absolutely not. Normal bodies are boring."

Technological benefits

Ben Johnson lost his gold medal and 100 m world record in 1988 because he used steroids to enhance his performance. Lance Armstrong lost all seven of his Tour de France titles for doping offences. If they had used prosthetics -- lighter and stronger than human limbs, and that didn't tire out -- instead of drugs, would they have been allowed to keep their medals?

It's a touchy subject. Because no one wants to look as if they're discriminating against people who have already struggled against overwhelming odds.

Besides, where do you draw the line? Obviously, it's acceptable to set a broken arm or leg. And it's OK to install pins or screws that will help that bone heal. But is it fair, say, to reset a bone to lengthen a runner's legs? To expand a pianist's hands?

Athletes already benefit from external technology. Pole vaulters today could not compete without those springy poles that loft them over the bar. Runners and skaters buy expensive footwear to help them excel. Shooters sharpen their eyesight with corrective lenses.

Why not improve body parts, too?

Unfair advantages

As Kate Lunau noted in a *Maclean's* article last October, there is now virtually no part of the human body that can't be substituted. Except perhaps the brain. And even that may be only a matter of time.

The first kidney transplant took place in 1954. Since then, we have learned to transplant livers, lungs, hearts, windpipes, even faces. Laboratories have learned how to create new organs, using cells from the person's own body.

The cost, of course, is enormous. An artificial hand, with fingers that respond to touch, can cost over \$50,000. Bertolt Meyer, a professor at the University of Zurich in Switzerland, wears one.

When artificial body parts exceed the abilities of natural ones, Meyer asks, "Should we allow people to chop off their limbs to replace them with bionic ones?"

At what point do we have to admit that an artificially enhanced person may have an unfair advantage over a normal – that is, technologically unimproved – human?

Jenna Talachova made it into the final twelve in the Miss Universe Canada contest in 2012. All the body parts that made her a contender were created for her by medical science. She was not born with them; Talachova had a sex-change in 2008.

I don't question Talachova's conviction that she was a woman born in a male body. Nor do I question her decision to have transgender surgery. But when bums, breasts, and bellies can be shaped and reshaped by medical technology, does a beauty pageant become simply a competition to see who can spend the most money on physical enhancements?

Can we, dare we, restrict beauty contestants and athletes to those still working with original equipment? Will we be forced to define what constitutes actually being human?

How many parts of me can be replaced, before I stop being me?

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YOUR TURN

One week later, the case of the missing airliner remains unsolved. As I write this, Malaysian authorities seem convinced that the bits of something found in the southern Indian Ocean off Australia are parts of their flight 370. But no parts have been actually retrieved. Which leaves doubt, still.

Several of you seemed convinced that I was blaming terrorists for the flight's disappearance. To take one example, Christa Bedwin wrote, "Not terrorism, Jim. The media's salacious imagination is leading everyone into panic... If it was terrorism we would have heard from the terrorist group by now."

I don't think I suggested that terrorists had swiped the plane. I made a comparison with the Air India and Pan Am flights that had been bombed while in the air, but only to examine what would happen to the victims in those circumstances.

At least three readers recommended an article by a Canadian (I believe) who explained the plane's change of course as the natural response to a crisis on board: <http://www.wired.com/autopia/2014/03/mh370-electrical-fire/> James Harbeck called the theory "depressing, because it means they haven't been landed somewhere and kept alive as hostages, but it explains everything quite tidily..."

Well, not quite. Because no wreckage has been found along the path the pilots would have taken to reach Palau Langkawi, a 13,000-foot airstrip with an approach over water and no obstacles.

The most ingenious theory I have read was blogged by someone called Keith Ledgerwood, <http://keithledgerwood.com/post/79838944823/did-malaysian-airlines-370-disappear-using-sia68-sq68>, who worked out the flight coordinates to show that MH370 could have intersected with Singapore Airlines 68, another Boeing 777, and hidden in its radar shadow across India until it could veer off into Central Asian airspace.

Until we actually recover some wreckage, all theories are equally plausible. Or implausible.

Anyway....

Cliff Boldt, like Christa, took after “the absolute inability of the media to dig for news, to analyse what is happening, with the Malaysian airline disappearance for example, to educate people about the technology that is available today that wasn't during the Air India bombing. What is being used to search? And why are the victim's families so upset, so angry, about something they absolutely cannot control?”

Isabel Gibson wrote, “We have outdone ourselves with the ‘news’ coverage of this one airliner. I now change the channel or turn it off when yet another set of experts opines on what could maybe possibly have happened. My thoughts, like yours, are with the surviving families. Loss drives suffering but [brings] eventual resolution; uncertainty offers no end to the suffering.”

John Schaffer agreed about “calmness in near-death experiences. That fits my own life journey, especially when my life is ‘out of my hands’ in flying situations. I was in a small plane that ran out of gas over a forest. We glided long enough to reach a runway. I never flew with that pilot again. In a larger plane, we were trying to land in Anchorage in a 50 mile an hour cross wind. I remember looking up from my seat and out the window, only to see the entire runway, as if we were flying sideways. A skilled pilot brought us safely into the airport, but the authorities closed the airport immediately after [because of the wind hazard]. We gave him an ovation out of gratitude.”

Nenke Jongkind corrected my terminology: “Car accidents are usually now referred to as crashes or collisions. Even most of the newscasters now use that terminology.”

TECHNICAL STUFF

This column comes to you using the electronic facilities of Woodlakebooks.com.

If you want to comment on something, send a message directly to me, at jimt@quixotic.ca.

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You can access several years of archived columns at <http://edges.Canadahomepage.net>.

I write a second column each Wednesday, called Soft Edges, which deals somewhat more gently with issues of life and faith.

To sign up for Soft Edges, write to me directly, at the address above, or send a note to softedges-subscribe@quixotic.ca

PROMOTION STUFF...

If you know someone else who might like to receive this column regularly via e-mail, send a request to jimt@quixotic.ca. Or, if you wish, forward them a copy of this column. But please put your name on it, so they don't think I'm sending out spam.

For other sources worth pursuing, try

- Ralph Milton's HymnSight webpage, <http://www.hymnsight.ca>, with a vast gallery of photos you can use to enhance the appearance of the visual images you project for liturgical use (prayers, responses, hymn verses, etc.)

- David Keating's "SeemslkeGod" page, www.seemslkegod.org;
- Alan Reynold's weekly musings, punningly titled "Reynolds Rap" -- reynoldsrap@shaw.ca
- Isobel Gibson's thoughtful and well-written blog, www.traditionaliconoclast.com
- Wayne Irwin's "Churchweb Canada," an inexpensive service for any congregation wanting to develop a web presence, with free consultation. <http://www.churchwebcanada.ca>
- Alva Wood's satiric stories about incompetent bureaucrats and prejudiced attitudes in a small town are not particularly religious, but they are fun; write alvawood@gmail.com to get onto her mailing list.
