

## **No Exceptions, No Excuses: A Testimonial**

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I am not a medical ethicist, nor a historian. I have no direct personal or family relationship with the Shoah. I am not Jewish. If anything, because of my Italian origins, I am, in a broad sense, on the wrong side of this conversation. Though I have had substantial exposure to historical renderings of its tragic events, I simply have no title whatsoever to write about the Holocaust, or medical ethics in its aftermath. I was simply an occasional bystander, who happened to be caught in the winds of cyclone Sheldon “Shelly” Rubenfeld.

Early in my tenure at Houston Methodist, I was introduced to Shelly by then President Ron Giroto, who reported about the extraordinary personal impact he had experienced through his participation and support of Shelly’s Center for Medicine after the Holocaust (CMATH) and, in particular, its Houston conference and trips to the medical sites of the Shoah. As he was stepping down from his leadership role, Ron expressed his enthusiastic appreciation for CMATH’s mission and recommended with great emotion that I continue supporting it.

It has been my great privilege to do so ever since, and a true gift for my soul. The first event we organized together was the 2012 conference in Houston, which provided impetus for this volume. In this testimonial chapter, and despite the inadequacies of my knowledge base and my obviously non-native English writing skills, I will endeavor to provide a measure of the greatness of the gifts I have received and the lessons I have learned through my involvement with Shelly and CMATH's events. The fundamental lessons I have derived in my conscience are summarized in five statements, which form the titles of the sections comprising this chapter. In short: No exceptions. No excuses.

**1. Any discussion of medical ethics that ignores the lessons from the Holocaust cannot have any real depth or societal significance.**

Indeed, that is a strong statement. I first studied medical ethics as a middle-aged medical student in 2002. My framework has remained what I learned then from the monograph of Tom Beauchamp and James Childress, and it is with respect to their four axes of reference that I will articulate my supporting perspective. *Beneficence* and the *Holocaust* is a strident contrast of two words that appear impossible to place in the same sentence. Yet the perspective of the Final Solution was not articulated as “us vs. them,” at least not for the vast majority of the time that lead to its tragic execution. It evolved—a malignant and intentional choice of words—from a perspective of beneficence, from a vision of a better world with ever-improving genetic traits, with a corresponding enhancement of overall health for mankind. It crept into societal consciousness, sneaking its way in with suggestions of an ideal futuristic society, sung by mermaids who also whispered of the ethical imperative to avoid the suffering of those who were imperfectly born in their bodies or their mind. The killing machine was so perfectly tuned to

implement the Final Solution because it had been used for years to murder thousands of mentally and physically disabled children in the Third Reich's world-leading hospitals. These were mostly blue-eyed, blond-haired German children. Their extermination was not based on racial differentials; it was based on differences in ability and the implication that these differences were not compatible with somebody's notion of a life worth living. Are these differences different than those based on race? Are they more justifiable? Absolutely and obviously not—the tragic perversion of ethics is not in which differences are sufficient for excommunication from mankind, with all privileges of dignity pertaining thereto. It is the notion that there may be differences that warrant the exclusion of some from mankind—an exclusion that unavoidably exposes them to death and suffering by lowering or eliminating the ethical prohibition against bringing death and suffering to those who have been selected. No differences ever justify such exclusion, regardless of any consideration of “greater good” or beneficence for a class of citizens of humankind, no matter how large. This is why the purely utilitarian perspective has no citizenship in medical ethics; it must be bounded and balanced by considerations of *nonmaleficence*, *justice*, and *respect*. Medical experimentation during the Holocaust, with its systematic infliction of death and suffering, is the leviathan that haunts our collective souls and must serve as the reminder that nobody can ever be excluded from the basic set of privileges that pertain to the human status—with no exceptions and no excuses.

*Nonmaleficence* is a fundamental tenet of the Hippocratic Oath: First Do No Harm. The medical establishment of Nazi Germany was the best in the world. German culture, art, music, and science were second to none. Yet, despite this overwhelming intellectual excellence, the dominant fraction of German medicine found a way to escape

this most fundamental of tenets of the medical profession. The escape clause was in allowing the Oath to apply only to a subset of humankind. Once that subtly poisonous distinction is allowed to stand, once that most insidious of maladies of the soul is permitted to thrive, it gains momentum, obliterates more and more boundaries, engulfs more and more groups in a raging fire of mutual destruction, in a spiral of individualization that leaves all fighting all, to the death. In the Third Reich, it was based on a devastating principle, the desire to evolve into a genetically superior mankind through eugenics. The tragic irony is that such arguments of separation bring about exactly the opposite: They are an evolutionary *disadvantage* for all, insidiously camouflaged as an advantage for some. No differentiation into classes of citizens of humankind with different life dignities is ever acceptable. There are no exceptions, no excuses. Failure to adhere to this tenet leads to the atomic death of society.

The Hippocratic Oath contained this basic wisdom. The reaffirmation of the Oath was made necessary by the monsters created by medicine in the Third Reich and was the driving force for the Declaration of Geneva in 1948. The Hippocratic Oath had been written about 2,500 years before. As we read it today, we recognize that the Oath is far from being a “first attempt” at medical ethics, coming from a semi-primitive, ancient culture. The great instruments of medicine, the molecularly targeted pharmaceuticals, the transplants of organs, the positron imaging devices, the system biologies, the nanomedicines, the robotic surgeries, and the tissue regeneration stem cell therapies were not there at the time of Hippocrates. Yet, the Odyssey was already hundreds of years old, and perhaps no other human writing since has ever matched its significance, depth, brilliance, and beauty. So perhaps it may be worth reading the totality of the Hippocratic

Oath, even the passages that may cause discomfort to some—even those passages that prohibit abortions and those that prohibit materially bringing or suggesting death, with no exceptions and no excuses for doing otherwise.

*Respect* is perhaps the dimension that most markedly reflects the refocusing and reaffirmation of bioethics following the Shoah. Fundamental considerations within respect are autonomy and self-determination, which were horrendously violated, and the very definition of human nature. The elimination of disabled children in the Third Reich was justified by setting the threshold of human nature at certain levels of mental and physical performance, which is ethically untenable no matter what the thresholds. These levels could not be other than completely arbitrary, in that there were not then, and still there are not now, any scientifically defensible methods for determining mental “performance,” other than for specific individual tasks that are so minute in their scope and relevance as to appear utterly ridiculous in front of the notion of “human-ness.” At the same time, any attempt to define *race* scientifically is similarly destined to meet with even greater ridiculousness, though of an immensely tragic nature. Any decision in medicine, which is based on differences in degrees of humanness and human dignity, violates this most fundamental value of medical ethics—and so does the withholding of access to medical care on these bases, in contravention of the principle of *justice*.

**2. We cannot make a real, positive difference, unless we realize that we are all part-bad guys—it is not “them evil vs. us good.”**

I have never been a believer in the sharp distinction between good and evil in people, individually or in broad collections of humanity. Sharp lines distinguish doctrines, of course, but actions often have a composite nature, and as humans the

normalcy is to have Gryffindors and Slytherins combined within ourselves. Being born in immediate postwar Italy, the rapid recognition of this duality was unavoidable in my early days, as the country turned almost overnight from nearly full-participation fascist to almost no-exception antifascist. It was the same people, but now on different sides of the fence, and in all likelihood with a very similar composition of good and evil in them. The driving forces for belonging to the two opposing sides were probably the same, before and after the turning of the coats: survival of the individual, protection of one's family, and probably, in many cases, the desire to do good even in adverse circumstances.

The horrors of fascism were followed by the systematic ethnic cleansing perpetrated against the frontier Italians in Friuli Venezia Giulia (FVG), where it is estimated that 25 percent of the population was killed by the good "liberators" under the command of Marshall Tito, with the silent permission if not the blessing of the forces of the United States and United Kingdom. The signature killing style of the pro-communist forces was to tie two prisoners together with barbed wire, shoot one, and then throw both into the natural pits and caves of the regions, the *fojbe*, to die there. My mother has vivid memories of the fact as a young child in a frontline area that the only safety was when the German soldiers were in town—they were respectful, friendly, educated, family-minded. In the previous war, again fought quite literally in our front lawn, my mother's side of the family lived in the same home, only then it was part of Austria. My grandpa, Nonno Mario, was drafted by Kaiser Franz-Josef and fought on the Russian front wearing the Austro-Hungarian uniform, while his younger brother Zio Giulio, at the ripe old age of 16, escaped across the border into Italy and volunteered with the Italian Army, fighting against the Austrians as a *Ragazzo del '99* in the campaign on the Piave River in 1915.

They were Austrians of Italian origin, they spoke Italian as their primary language, and they were both Gryffindors and Slytherins, rolled into one.

My father moved to Friuli from the deep south of Italy when he joined the Italian Army immediately after WWII, choosing his militaristic “vocation” because they were starving back home, his adoptive father was nowhere to be seen for long stretches of time, and military service was the only option to sustain himself and his illiterate adoptive mother, Nonna Teresa. My older brother Daniele followed in his footsteps and served with great distinction in the Italian Army for 40 years in Iraq, Serbia, and other dangerous places. He had the privilege to serve alongside American forces and to be honored by them with multiple medals.

One ethnicity that he and I find to have a very similar story to us Friulians, with our composite make-up, is actually the Serbs. History recognizes them (or it should, even in these revisionist times) as the ultimate stalwarts of European freedom throughout the ages, from the days of the Turkish invasions 700 years ago to the unparalleled courage in the opposition to the Nazis during WWII. The Germans and perhaps their Italian allies—though this is usually not mentioned in history books, at least those that originate from Italy—had the policy of exterminating civilians in a multiple of the number of German soldiers that were killed by resistance warfare. The selected multiple depended on the strength of the message that they were intending to send to the resistance movements, and it increased with the intensity of the resisters.

For instance, the multiplier was different in the South and the North of Italy. After Italy turned antifascist in September 1943, its South was basically liberated and in the hand of the liberators, the U.S.-lead Allies. The North, by contrast, was essentially

without any form of government or protection for the civilian population, with large domains being controlled by the Germans, retreating with great anger against the traitor Italians, and other parts being controlled by pockets of fascist loyalists or falling under the influence of the partisan resistance movements. Some of the partisan forces were inspired by ideals of Western-style democracy, while some were communists with different degrees of radicalism, all the way to a substantially widespread allegiance to Stalin. Fratricidal wars ensued, with “white” and “red” partisans killing each other in numbers that were large (and again conveniently “forgotten” by history for a long time) but nowhere nearly as large as those suffered by essentially identical dynamics in Serbia, where over 1 million civilians perished, much more at the hands of different partisan factions than the forces of the Axis. In those times of mayhem and confusion, survival of self and protection of family were perhaps understandably the major driving forces, and good and evil tended to take a more relative meaning. In those days, the Italian resistance fighters suffered civilian retaliation with a multiplier of 5 to 7 executed for every German soldier that was killed. My mother’s family was relocated to the small town of Nimis in FVG in 1945, after it had been completely burned to the ground by the Nazis in retaliation for an ambush on their forces.

The Serbs, on the other hand, were considered the fiercest resistors of all, and the Germans retaliated against them with a multiplier of 100: for every German soldier killed, 100 civilians were executed. I will never forget visiting the memorial park in the Serbian city of Kraguyevac, where the Germans exterminated over 2,000 civilians in retaliation for the loss of 20 of their soldiers. This savage mass murder included the extermination of the children who were taken from the local schools and executed with



their teachers— it was horror beyond words, and yet a testimonial to Serbian courage and determination to fight the Nazi monster.

Yes, Serbia is the same country that perpetrated mass murder under President Milosevic and is guilty of ethnic cleansing, the rape camps in Srebernica, and other untold, unspeakable horrors against other ethnicities in former Yugoslavia in very recent times. Yes, Italy is the same country that, on the one hand, bravely fought the Germans in the mountains, but cannot ever be forgiven for sending many Jews to the death camps, essentially wiping out the historical Jewish community of Rome and other principalities. Yes, that happened with the cover of the silence of the Vatican, which, on the other hand, was instrumental in providing free passage to life and freedom to many Jews in Italy and elsewhere. Yes, the Cossacks were aligned with the Nazis. Facing extermination by Stalin, they picked up their families and belongings and accompanied the Nazis, providing support in their attack on the Soviet Union.

When the siege of Stalingrad failed, the Germans and the Italians retreated with enormous losses and sufferings through the Russian winter. Again facing extermination, the Cossacks followed them westward—Hitler had promised them a land to settle down in peace with their families. They landed in Friuli Venezia Giulia (where else?), which was still no-man's land, awaiting liberation by the U.S. Allies or the Soviet/Yugoslav forces. Among them, about 400 families were the first occupants of Nimis, just partially rebuilt after the retaliation burning in vindication of the anti-Nazi ambush. When the Allies finally won out, the Cossacks again feared extermination because they had sided with Hitler. So they escaped Nimis and FVG, going north to join the retreating forces of the Axis into Austria and Germany. When they got to the Drava River in Austria, they

surrendered to the Allies. Neither the Americans nor the British had any desire to keep them, and it was decided that the Cossacks would be returned to the Soviet forces. Certain of extermination, at this point, the Cossacks committed mass suicide in the river—mothers drowning their children, in the self-immolation of men, women, old, and young alike. The Cossack ethnicity basically disappeared there; it perished in unspeakable pain at the combined hands of the evil, and the good. Yes, it was the same Cossacks who had been siding with Hitler against the new, radiant sunshine of ... Stalinism, of all horrors! With the extermination of the Cossacks, the town of Nimis became available for my mother's family to move in as part of a new wave of refugees from communist-dominated Italy into gray-zone Italy.

Meanwhile, a major Serbian group of hundreds of families, under the leadership of one of their high priests, Orthodox Pope Djujic (who had himself been accused of heinous war crimes by his opponents), had been fighting their way from Serbia after they had lost their local war against the communist, pro-Tito partisans. They, with full families in tow while fighting, reached their promised land, breaking through forces of the Axis and communist lines in a journey that took several months. Many were lost to violence, starvation, and disease. They arrived in the town of Palmanova, in Friuli, which is maybe as many as 25 miles from Nimis, on the day of Saint George, the celebration of national pride for the Serbians. In their promised land of Palmanova, they surrendered to the Allies in an installation under the command of Australians and New Zealanders. They were requested to surrender their weapons. Rather than doing so, especially on their sacred day, many took their own lives. It was perhaps an unwarranted act of nationalism, or perhaps a commendable glorification of their people and traditions, or perhaps an

unjustified act of desperation given the civility of their captors—and yet, Nimis, the Drava, the *fojbe*, Stalingrad, and Kraguyevac were still close and part of the same breath of history.

The reverberation of their desperate act remained in the stories that were told by the elders in Friuli, long before official history could do them justice (it has not yet). That is how I first learned of Serbians, when I was a small child. I was born an Italian Army brat in the border region between the western world and communism, less than ten miles from the border with Tito's Yugoslavia. Given my father's job, my childhood was spent more with army veterans than with kids my age. Many of them had participated on the wrong side of the siege of Stalingrad and had gone through the horrors of the retreat through the Russian winter. Nobody had volunteered for either. Nobody had had a choice to join in or not—they were drafted, basically kids, mostly from farms, with no idea of where Stalingrad was, of what democracy was, and that there even was a non-fascist world out there. At the end of the war, my mother's hometown was split into two parts. Marshall Tito wanted the train station, so in the trade he got the smaller part of town. My mother's house ended up staying on the western side, and that is basically why I only carry the embarrassment of my people of origin having worn black shirts in the darkest hours of history, and not doubling that up with those who were traded to the Soviets and ended up having to wear red shirts for the times that followed. We are ultimately caught in the wheels of history. The difference between me and those that drowned in the Drava or the Serbians in Palmanova or the many Friulian families that were executed by the Italian communist partisans and the troops of Marshall Tito is just a set of impalpable alignments of unlikely events impacting that small piece of countryside that we now call

Friuli. It depended on who wanted the train station of Gorizia more, on the weather during the key week of the failed attack on Stalingrad, on the exact location of my grandparents' home—a few miles either way, and it would now be in one of four nations, and all of us in the family would have entirely different historical burdens and perspectives.

When the wall came down, and Slovenia became part of the European Union, the border fences with military guards (the *granizari*) whom I had feared so much as a child all of a sudden were removed, with free passage for everyone in both directions. I took my children across the border for lunch. As we were having a great meal in Ljubljana, I asked them to look around at all of the people and tell me what differences they could find between them and us. When they could not find any, I told them, “I thought so,” and proceeded to tell them how, across those absolutely fictitious and capricious boundaries, “we” and “they” had proceeded to slaughter each other with abandon for over a thousand years.

Good and bad, you say, good and bad? Yes, there are good and bad actions; the Good Book is very clear about it. And yet, when it comes to people, the same Good Book also admonishes us about knowledge of good and evil through the narration of the actions of Adam and Eve. The original sin that caused affliction in human nature is the reaching out for the fruit of knowledge of good and evil. I suspect that is a reminder of the dangers embedded in the delusion of certitude of a world cleanly divided into the two domains. If we believe we know the boundaries with exact precision, if we delude ourselves that we have the ability to steer clear of those boundaries, then we sin, irreparably, and our hubris will lead us down the path of horror.

Yes, it was the Germany of the most sophisticated human expressions of art and culture. Yes, it was the Germany of Dietrich Bonhoeffer. Yes, it was the Germany of the most advanced knowledge of medicine. And yet it was the Germany of the most atrocious crimes in the history of humankind, the Holocaust and the extermination of its own disabled children. And yes, it was the America that once again shone through as the greatest defender of freedom that humankind has ever known, sacrificing many of its own, the Greatest Generation, in the name of collective liberty in world. And yes, it was the America that would send its best doctors including Dr. Michael DeBaakey to study in Germany; yes, the same America whose medical intelligentsia widely supported eugenics, especially at great institutions such as Stanford University, Cold Spring Harbor Laboratory, and the Rockefeller Foundation; and yes, the America that largely turned a blind eye on some of the tragedies and ethnic massacres of the time—and other times since.

Without the illusion of a clear separation of good and evil in real people, constant vigilance is the necessary requirement for all to remain within the bounds of ethically acceptable behavior. Our collective and individual vigilance must be extraordinarily strict, as we approach considerations that involve life and death and the dignity of the human experience from the first day to the last. In no domain of human endeavor then, is the strictest vigilance required more than in medicine. Forgetting past horrors is a condemnation to future horrors. We must acknowledge our failures, recognize how past horrors were arrived at, suffer in the recollections of the horrors themselves, and be unforgiving with ourselves, in the recognition of the elements of today's culture and actions that parallel those of the darkest of days. No discounts, no exceptions, no excuses.

### **3. There are major elements of the path to the Holocaust in today's medicine and culture.**

Let's then face it: The path to the Holocaust is still active and is actually reflected in several, even accelerating trends in today's world of "civilization." Three aspects are particularly concerning to me: the culture of death; the culture of diversity-based exclusion; and the culture of *Herdensinn*, whereby individuals hide within the folds of mass-dominant opinions, thereby recusing themselves from responsibility of affirming their own major principles. These attitudes permeate society in the most global of manners and manifest themselves recurrently through medical policies and the practice of medicine.

Strengthened by the false dignity conferred upon them by the white coats of the medical profession, these trends loop back into society as cultural reinforcements, which in turn, lead to a spiral of ethical decay that parallels many steps that lead to the Shoah.

"Death shall be no more, Death thou shalt die," from John Donne's "Holy Sonnet X," is a concept that is inextricably linked to transcendence. The denial of transcendence is the triumph of death. It is then not surprising that in an increasingly secular society, where the separation of spiritual belief from public governance is celebrated as a *virtue*, the culture of death finds fertile grounds for uncontrolled growth. We kill those who are uncomfortable or problematic or inefficient in a utilitarian perspective of society as a whole. Death by capital execution is a medical shortcut to address a mental disability that leads to the commitment of heinous crimes—I firmly believe that the crimes that are punishable by death in western societies can only be committed by those who have an infirmity, an embedded inability to empathize or to feel pain, a frontal lobe dysfunction

of some sorts, that impedes their relating to others. I specified “in western societies” simply because I understand that in certain non-Judeo-Christian cultures marital infidelity and homosexuality are examples of “crimes” deserving of the death penalty. For cases such as these, my impression is that the mental pathology is of the community administering the punishment and not of the “perpetrators.”

Euthanasia is now allowed in Oregon and in certain European countries such as Belgium and the Netherlands. Giving death, or the instruments of death, or the suggestion of death to a patient is prohibited by the Hippocratic Oath, yet contemporary medical practitioners engage in these activities. Their “moral cover” can be utilitarian, as was the case in support of eugenics all the way to Auschwitz, or be masked under the pretense of autonomy. However, anyone suffering to such an extent that their will-to-live is overwhelmed cannot be considered in control of his/her mental abilities, and therefore, an argument based on autonomy is intrinsically weak. “Suffering” here is intended to cover both physical and psychiatric pain—the age when this artificial difference finally will be set aside is hopefully near with the advances in the biological basis of psychiatric disorders such as depression. Any notion of humanness and worthiness of the human experience based on levels of suffering must contend with the recognition that if those who suffered greatly throughout their lives had been eliminated by “mercy killing,” the overwhelming majority of the truly superior works of art and products of human creativity never would have seen the light of day. Suffering is a component of the human experience, just as much as joy is, and just as meaningful.

Be that as it may, many instruments exist today, which were not available just a few years ago, to address mental and physical pain. The responsibility of the medical

practitioner is to identify and use them, as already pointed out by Pope Pius XII and Pope John Paul II. Opting for the shortcut of hastening death by direct, enabled, or recommended action is not acceptable, though at times the very medications used to alleviate suffering may bring adverse consequences including death. All procedures in medicine carry potential risks, and medical interventions are justified when the benefits outweigh the risks. In extreme conditions, such as emergencies and in conditions where there are no alternatives, it is also common that medical intervention might present a substantial risk of death. The alleviation of extreme, otherwise intractable suffering with high-potency opioids is in this category.

By contrast, it is disheartening that some physicians find it preferable to pursue death as the primary “remedy,” and to dispatch a patient with a terminal disease or a condition that we cannot control, rather than to act as necessary to accompany her/him for a longer time, admitting the failings of one’s own medical science, while at the same time providing all possible comfort and relief from suffering. While life support and resuscitation may not be warranted in some situations and must be placed at the discretion of the patient’s autonomy, the discontinuation of life support actively provides death to the patient and, as such, is in violation of the Oath. By agreeing to deliver, recommend, or enable euthanasia, physicians not only violate the most fundamental of the tenets of their profession, but also, by the respect accorded in society to the medical profession, arouse and reinforce in the community two extremely dangerous emotional conditions: the trivialization of death and the desensitization toward it. These conditions are signs of a deep decay in the spiritual fabric of a community, unmistakable symptoms that a profound malady has overrun the societal safeguards and protections against



grievously destructive behavior, as was the case in Germany under National Socialism, in the precipitous slide all the way to Mauthausen and Buchenwald.

Third Reich eugenics allowed for the execution of those below a certain arbitrary degree of present or potential functionality. I believe that life starts at the moment of conception and, therefore, I am opposed to the performance of abortions. The ethical line is drawn by some at the notion of viability and recast in terms of age of the fetus, but it is important to realize that viability is largely a factor of circumstances such as the strength of the medical technologies available and the training of the medical personnel. With the constant advances in medical sciences and improved access to specialized care facilities, viability will draw closer and closer to conception. It appears rather capricious and arbitrary, and therefore, ethically unjustifiable to cast the moral debate on abortion and regulations thereof on a technological line that is constantly moving. Rather, society should face the question head on, recognizing its full implications and refraining from hiding behind flimsy or outright false technological arguments. It is not inconceivable that, in a near future, fetuses will be viable just a few days or weeks after conception, and if so, will we change abortion laws then? Is it prudent or acceptable to base ethics on technological advances? Especially repugnant to my conscience are the decisions to abort based on adverse genetic signatures, that is, on the same ethical bases as the Third Reich, but with the added benefit of advances in molecular biology and pre-natal diagnostic medicine. Is a molecularly smarter eugenics a more justifiable eugenics?

Fertility procedures that currently enjoy widespread acceptance also raise serious concerns in my conscience. On what basis, if any, can it be acceptable, to “destroy embryos” (the artfully conceived, politically acceptable expression concealing the reality

of death they embody) when too many of them are viable after a contemporary fertility procedure? I am against the destruction of embryos, period. For those who are on the fence, there are some questions to consider. Is it ethically acceptable to destroy embryos if they carry genetic signatures of disease or imperfection (the “eugenic motivation”)? An argument that is sometimes presented in the support of the decision to destroy an embryo that carries an imperfection, a disease, or a heightened risk factor is the desire to spare unnecessary suffering to the new life. Is this not a false pretense, a feel-better cover to hide from oneself the decisions of pursuing convenience over respect for life of one’s own offsprings? With current technology, the embryos are normally eliminated at a time when they would not be independently viable, though they would be viable in the womb, and in this case as well, viability is moving closer and closer to fertilization. Where is the ethical argument supporting these distinctions? Is it not just a matter of economic or lifestyle convenience of the family? Let’s face the truth and recognize that it is yet another slip toward the horror of the gas chambers.

Current medicine permits the killing, by withdrawal of life support, of those who are “brain dead,” though in the medical sciences we have no clue as to how the brain works, and the methods we have to determine “brain death” are absolutely primitive. We do not know how to correlate electro-encephalograms (EEG) to any specific activity of the brain, or how they correlate to thoughts or emotions. EEGs record some electrical activity of the brain, above a certain detection threshold. We have no idea if anything happens in the brain below that instrumental threshold. We have no idea of how the most basic functions of the brain relate to electrical activity. For instance, memory is a

conformational change of the network of brain cells, a set of chemical and biological processes that is sustained in the absence of any electrical impulses.

The very notion of “self” is completely mysterious to the current state of science. I believe it is most likely related to biochemistry and the architecture of cellular networks, not the physics of electronic flow. The concept of “consciousness” relates to responses to stimuli, and some of these can be quantified by electrical measurements, but again, we have no way to recognize what happens below the instrumental threshold of EEGs, what responses are dominantly or solely owed to cell-cell contacts (such as, mechanics? cell surface interactions such as ionic exchanges? mass transport via exchange of vesicles such as exosomes?) or to gradients of metabolic activity. My expectation is that the advances of functional MRI and the advent of more sophisticated imaging techniques will reveal fully transformational discoveries about the functioning of the brain, including startling observations on the activity of brains that are officially “dead” per current EEG measurements. Despite our overwhelming ignorance of the modes of functioning of the brain, at this time the medical community has no problem dispatching into the great beyond those who fail their EEG tests, or even to perform terminal experiments on them, as was done in the search for vascular zip codes of cancer in very recent times at the MD Anderson Cancer Center in Houston. As these practices gain acceptance in medicine, society at large is desensitized to killing and to extreme human experimentation, blinded by the reflections of the white coats, without bothering to ask if they know anything about “self,” consciousness, and its relation to memory and identity. It is another step toward mass graves, this time mostly in the name of practical

convenience, and again enabled by some of the best scientific minds of the medical profession.

The assignment of lower “humanness” based on any discriminatory criterion is absolutely unacceptable. As society is making strong advances toward abolishing discrimination and has rejected any differences in human rights based on race and gender, still much more progress is required, and attention must also be turned toward new, insidious discriminatory criteria that are surreptitiously emerging *because* of medical “advances.” Any discrimination based on skill level is unacceptable, because any individual skill or combination thereof is but a minuscule rendition of the fullness of the human experience. Most importantly, it is impossible to justify any skill-based discriminatory arguments and, at the same time, avoid sliding off the Tarpeian Rock.

The true challenge is to develop and implement methods for ensuring equitable access to health care for all, as a crucial matter of justice, since access is overwhelmingly determined by financial status, which in turn, is frequently determined by excellence in the skills that provide monetary success in today’s world. These measures of excellence are, in part, natural gifts and are, in part, refined through consistent practice, sacrifice, and hard work. I am a stout believer in the importance of rewarding hard work and commitment, but at the same time, I cannot but contemplate the truth that even the ability to work long hours with dedication and passion is probably in large part owed to genetic traits as much as natural beauty or the ability to run fast or to sing wonderfully or to parallel process difficult tasks while demonstrating operational leadership and charming the world with superior emotional intelligence. The exacerbated problem of access is intertwined with the incredible speed at which medicine is advancing. A difference in

access between two groups will not only mean a difference in health outcomes and life expectancy, it will also engender progressively increasing degrees of separation between the groups. The creation of a caste of *ubermensch* is a very feasible nightmare, which could be based on current medical practices such as the selection of favorable genetic traits for our offspring, the provision of selective enhancements of performance, the creation of entire classes of “diseases” that warrant preferential treatments for selected groups. All in all, the simplest of notions is the only tenable foundation: no differences allowed in the dignity scale for human beings. Any exception leads to the acceptability of the notion of differences based on traits, which then becomes a tool of dominance in the hands of those that have more power. Yesterday it was blond hair and blue eyes as a proxy for the industrial power of the Nazi; tomorrow there may be other traits as proxy for greater military power, or control over energy production, or natural resources. The only civilized answer is: No stratification of human dignity allowed.

I have spent most of my professional life in the hallowed halls of academe, at four truly outstanding public institutions: The University of California at Berkeley, The Ohio State University, the National Cancer Institute, and The University of Texas. I learned that at public institutions in the United States, any public profession of faith by a faculty member is considered somewhere in the continuum between inappropriate to subject to disciplinary action—a view I consider a grotesque misinterpretation of the doctrine of separation of Church and State. Over the years, and now at a faith-based institution, I have started to affirm my faith with greater ease. Actually, I now maintain that choosing not to disclose our faith is a reprehensible act of willful deception, especially in a profession such as medicine, where people trust us with their lives and thus have a right

to know where we stand on fundamental ethical matters. Even with that, I always had a reluctance to declare my views on delicate issues such as abortion and euthanasia. The reluctance stemmed from a desire to respect the opinions of others, which has always been very important to me, and most certainly still is. In the midst of this reluctance came the Conference on Human Subjects Research after the Holocaust and, with it, the recognition that the silence of many enables great tragedies. Failure to speak is complicity. Thus, I have concluded that the time has come for me to speak my conscience on these controversial matters, and thus this chapter. As I am leaving my middle age, I may be finally providing signs that I am growing up, after all. My encouragement to all is to speak their truths, to give voice to their conscience, from either a religious or secular perspective, with reciprocal tolerance. Silence is not the answer.

#### **4. The future may be scarier than the past.**

Eugenics has evolved into the molecular science of genetics, which may prove exceptionally powerful in the fight against disease, but at the same time, carries the fearsome notion of the classification of people on the basis of their genetic profiles, with potential reductions of human dignity and basic rights based thereon. The process of selection and destruction of embryos based on genetic traits is a reduction of the dignity of life, which will become more and more apparent as technologies are perfected to bring the embryos to term in conditions that are now impossible. Genetic profiles are associated with risk factors for diseases. Thus, a number of well-studied ethical questions emerge, such as who is entitled to the knowledge of the risk profiles? Employers, before they invest in training employees who might be dead or incapacitated in a few years? Future spouses, in a manner that is reminiscent of the mandatory syphilis testing of not many

years ago? Insurance companies, will they be allowed to charge higher rates or to deny coverage? Will someone with high risk for a deadly brain cancer be deprioritized in a waiting list for liver transplant?

While genomics brings risk profiles, the disciplines of post-genomic molecular medicine such as proteomics, metabolomics, and epigenetics actually carry much greater levels of information on actual, not only potential, risks. A proteomic reading in a near future may indicate the “distance” of a person from a disease, or who they had lunch with, and when and what they ate, what happened to their blood pressure as they ate, and what kind of feelings they experienced during the occasion. A connection to a smartphone could distribute the information to health care providers for automatic analysis and the potential triggering of actions in compliance with a centralized health maintenance algorithm. The opportunity for advances in health care will be extraordinary, but with those will come the “biological big brother,” the fearsome notions of continuous, centralized monitoring of one’s behavior and the hierarchical classification of dignities based thereon, and the ultimate tradeoff of privacy and individual freedoms in exchange for safety and convenience. This would be a highly unstable system, for sure, with a near certainty of abuse in the quest for ultimate power. With a view toward the darker side, one might easily envision molecularly targeted weapons or biological modulators designed to act selectively on those with certain traits (Race? Skill level? Age?) or on certain patterns of behavior (Smoking? Eating fat-laden foods? Following the dietary fashion of the week? Engaging in certain types of sex?)—notionally in the best interest of the community, that is, for the greater good, which is the form in which major tragedies invariably present themselves.

Perhaps even scarier, though potentially useful, is the notion of synthetic genomics. Pioneered by Craig Ventner's group, it pertains to the ability to create life forms that do not currently exist. The Ventner lab created a single-cell, bacterial life form by essentially writing its genomic sequence in a computer and building it in a machine. Perhaps this was a life form that existed in the past and was evolutionarily deselected, or perhaps it simply never existed before. The Venter lab is focusing on using this new bacterium for environmental protection against oil spills, but of course, nobody knows what could happen—they could evolve into different life forms, which might be beneficial, or not. Others may use the techniques published by Ventner's group to make more sinister creatures, or not. Who knows? Even the best of scientists are known to be carried away by enthusiasm and the best of intentions, but is anyone awake in the world as they are doing so? Could we synthesize a highly infectious bacterium that is resistant to all known drugs and that targets only the people I do not like? I suspect that, with a bit of sequencing, it will be rather easy to find a target set of genetic traits that they have in common. On the other hand, these new synthetic creatures could be used to treat diseases that are now incurable. It probably will be difficult, expensive, and time-consuming to get them approved by the Food and Drug Administration (FDA). Instead, it might prove much easier to use them for nefarious purposes. After all, terrorists and rogue nations do not require FDA approval.

In fairness to the Ventner group, I will recognize that I found myself in a similar situation in the past, with the recognition that some of the therapeutic nanoparticles I was developing to improve the efficacy of orally administered drugs also could have been used as biological weapons of mass destruction. I presume that similar occurrences may



happen to many scientists who frequent the frontiers of discovery. There are different options that are available upon recognizing the possible dark sides of one's discoveries placed in the wrong hands. One option is to discontinue the research altogether, which obviously implies foregoing the potential health care benefits of the line of research. Another option is to continue to do the research, but also inform "the good guys" of the potential risks. The problem with that is obvious: Where is the line drawn that encompasses the "good guys"? Shall we then just publish public warnings with our concerns, while we continue our research? My personal decision was to discontinue nanomedical research for the oral delivery of biological pharmaceuticals and, at the same time, to publish my concerns on this type of research. It was a personal decision, not a prescription for action in all cases posing similar problems. I have no problem with the notion that different lines of decisions may be warranted, in different situations, but I do believe that the public must be fully informed in a timely and transparent fashion before any evil genie exits the bottle.

## **5. Forgiveness is the sole victor.**

Eva Kor was a small child when she and her identical twin sister were brought to Auschwitz on a cattle train in conditions that were so horrible that several people lost their lives in transit. The last time she saw her mother, father, and older sisters was on the platforms in Auschwitz when they got off the train. She and her twin sister were the subjects of extremely cruel experiments by the "Angel of Death," Dr. Josef Mengele, who was intent on studying twins to understand the genetic bases of disease and response to medical treatments. With sinister irony, because they were valuable not as human beings but as experimental animals in the mind of Mengele, she and her twin sister were

helped to survive the death camps. As a father of two sets of twin girls and five children in total, it was impossible for me to sit through her presentation at the CMATH conference and not be moved to tears, many times. She showed incredible strength and acumen. And she stunned everyone with the energy and sincerity with which she announced her proclamation, her signature, her legacy: the complete forgiveness of Dr. Mengele and those who exterminated her family and so many others in the death camps and elsewhere in those dark years. Perhaps the most potent way to avoid repeating those tragic times is, indeed, forgiveness. We are all bad and we are all good. The apple from the tree of knowledge is not for us to seize and be proud of. It is not the one that seizes the apple who wins; it is the one who loves and forgives. Thanks, Eva, and God bless you.

### **Conclusion: For Whom Does This Bell Toll?**

Medical ethics certainly pertains to the doctors who practice medicine. Obviously though, I do not see any reason why it would not apply exactly as much to nurses. Medical technicians? Hospital administrators? Medical researchers? Philanthropists? Yes, yes, yes, and yes. Politicians and government officials who determine health care policies? But of course! You and I, when we elect politicians and influence their decisions? Or, just as much, when we do not even do that, but simply sit around watching TV? Yes! You see where I am going with this: We are all deeply involved in medicine; we all have the power to bring relief from suffering and the power to cure.

We are all healers. The tenets discussed here pertain to all of us. No exceptions. No excuses.