

The Experiment: Capitalism versus Socialism

David R. Legates, Ph.D.

Experimentation is a major tool in the scientist's arsenal. We can put the same strain of bacteria into two Petri dishes, for example, and compare the relative effects of two different antibiotics.

What if we could do the same with economic systems? We could take a country and destroy its political and economic fabric through, say, a natural disaster or widespread pestilence—or a war. War is the ultimate political and economic cleansing agent. Its full devastation can send a country back almost to the beginning of civilization.

We could then take this war-torn country and divide it into two parts. It would have similar people, similar climate, similar potential trading partners, similar geography—but one part is rebuilt using capitalism as its base, while the other rebuilds using socialism and its principles. We'd let the virtues of each system play out and see where these two new countries would be after, say, 50 years.

What might the outcome be? Well, as it turns out, we have already performed *The Experiment*—twice! It's post-war Germany and the divided Korea.

Germany: East vs. West

Following the devastation of World War II, Germany was split into two parts. The German Federal Republic, or West Germany, was rebuilt in the image of the Western allies and a capitalist legal-political-economic system. By contrast, the German Democratic Republic, or East Germany, was reconstructed using the socialist/communist principles championed by the Soviet Union. *The Experiment* in Germany pitted the market economy of the West against the command economy of the East.

On the Western side, considering what's being taught in our schools, one might expect that "greedy capitalism" would create a state where a few people became the rich elite, while the vast majority were left as deprived masses. Socialism, by contrast, promised East Germany the best that life had to offer, through rights guaranteed by the state, including "human rights" to employment and living wages, time for rest and leisure, health care and elder care, and guaranteed housing, education, and cultural programs. Similarly, North Korea was based on first Soviet, and then Chinese communism, while the West supported capitalist South Korea.

So the Petri dishes were set, and *The Experiment* began. In 1990, after just 45 years, *The German Experiment* abruptly and surprisingly ended—with reunification back into a single country. How did this version of *The Experiment* turn out?

In West Germany, capitalism rebuilt the devastated country into a political and economic power in Europe, rivaled only by its former enemy, Great Britain. Instead of

creating a rich one percent and a poor 99 percent, West Germans thrived: average West Germans were considerably wealthier than their Eastern counterparts. The country developed economically, and its people enjoyed lives with all the pleasures that wealth, modern technologies, and quality free time could provide.¹

By contrast, East Germany's socialist policies created a state that fell woefully behind. Its people were much poorer; property ownership was virtually non-existent amid a collectivist regime; food and material goods were scarce and expensive, available mostly to Communist Party elites; spies were everywhere, and people were summarily arrested and jailed. The state pretended to pay its workers, and they pretended to work.

A wall of concrete, barbed wire, and guard towers was built to separate the two halves of Berlin—and keep disgruntled Eastern citizens from defecting to the West. Many who tried to leave were shot.²

By the time of reunification, productivity in East Germany was barely 70 percent of that in the West.¹ The West boasted large, vibrant industries and other highly productive sectors, while dirty antiquated factories and outmoded farming methods dominated the East. Even staples like butter, eggs, and chicken—abundant and affordable in West Germany—were twice as expensive in the Eastern "workers' paradise."³

Coffee was seven times more expensive, while gasoline and laundry detergent were at least two-and-a-half times more expensive. Luxury items, like automobiles and men's suits, were twice as expensive, and color television sets five times more costly. About the only staple that was cheaper in East Germany was potatoes, which could be distilled into vodka, so that lower-caste East Germans could commiserate better with their Party elites and Russian comrades. Environmental quality was also far better in the Western sector.³

Moreover, state-guaranteed medical care in the East did not translate into a healthier society. In 1990, life expectancy in the West was about three-and-a-half years longer than in the East for men, and more than two-and-a-half years longer for women. Studies found that unfavorable working conditions, psychological reactions to political suppression, differences in cardiovascular risk factors and lifestyles, and lower standards of medical technology in East Germany were largely responsible for their lower health standards.^{4,5}

The socialist mentality of full employment for everyone led to more women working in the East than in the West. This pressure resulted in better childcare facilities in East Germany, as mothers there returned to work sooner after giving birth and were more inclined to work full-time—or

more compelled to work, to put food on the table, which meant they had to work full-time *and* run the household.³ This also meant East German children had far less contact with their parents and families, even as West Germans became convinced that children fared better under their mothers' loving care than growing up in nurseries.

As the education system in East Germany was deeply rooted in socialism, the state ran an extensive network of schools that indoctrinated children into the socialist system from just after their birth to the university level.⁶ While it's true that today East Germans perform better at science, technology, engineering, and math (STEM) studies than their Western counterparts, that may be explained in part by the influx of numerous poorly educated immigrants to former West German areas, and the extensive money invested in the Eastern region since reunification.

However, schools of the East were not intended to establish creative thinking, which results in valuable innovation. Rather, they were authoritarian and rigid, encouraging collective group-think and consensus ideas, rather than fostering outside-the-box thinking, novel philosophies, and enhanced productivity.⁶ Thus, East German technology was slow to develop, and students were often overqualified for available jobs.

Did the East gain any advantage? Nudism was more prevalent in the East, if that was your thing.⁷ Personal interaction was higher too, because telephones and other technologies were lacking. But even though East Germany was much better off than other Soviet satellite countries (a tribute to innate German resourcefulness), East German socialism offered few advantages over its capitalist Western counterpart.

In fact, in the years since reunification, homogenization of Germany has been slow, due largely to the legacy of years lived under socialist domination, where any work ethic was unrewarded, even repressed.³

Korea: North vs. South

At the same time and on the other side of the vast Eurasian continent, a second installment of *The Experiment* was initiated. Following World War II, a former colony of Imperial Japan was split into two parts along the 38th Parallel—the Democratic People's Republic of Korea, or North Korea, and the Republic of Korea, or South Korea. Highly industrial North Korea was initially backed by the Soviet Union, while the more agricultural South Korea was supported by the U.S. and its United Nations allies.

Within five years after the war's end, the Soviets had left, and the two Koreas were ravaged by a bloody civil war for reunification. The Chinese government stepped in to back North Korea, and since the stalemate and cessation of hostilities in 1954, the 38th Parallel has again segregated the communist North Korea from the democratic South Korea.

Since the Korean War, this version of *The Experiment* has now played out for more than 60 years. Unlike in Germany, there has been no reunification; instead, a 4-kilometer wide

"Demilitarized Zone" separates the two sides. How has *The Korean Experiment* worked out—and were the results any different from those in Germany?

North Korea has isolated itself from the rest of the world, so it is difficult to distinguish the effects of socialism and totalitarianism from those of isolationism. But despite the vast differences in cultures and history, the results of both versions of *The Experiment* are largely identical, although there is no indication that nudity is more prevalent in North Korea than in the South.

Most citizens in North Korea live in abject poverty, while South Korea thrives as one of the world's G-20 major economies. Bad agricultural management—akin to the idea of Lysenkoism, which distracted science in the Soviet Union until the early 1960s—has left North Korean citizens hungry, and death due to food shortages is prevalent.⁸ State-controlled media spread propaganda to mislead their citizens and hide the disaster that socialism has created. North Korea also shares the title (with Somalia) as being the most corrupt country in the world.⁹

The difference between the two Koreas is even more pronounced than was the difference between the two Germanys. South Korea's gross domestic product (GDP) per capita is 18 times higher—and North Korea's GDP growth rate is less than 30 percent of that of its southern counterpart. In North Korea, almost one-quarter of the GDP is spent on the military, life expectancy is 10 years less than in South Korea, and infant mortality is almost six-and-a-half times higher.¹⁰⁻¹²

Lack of electricity in North Korea makes for a striking nighttime satellite image between the well-lit South and the almost completely dark North.¹³ The intentional homicide rate is almost six times higher in North Korea.¹¹ North Koreans are on average up to three inches shorter, due to prevalent malnutrition and a poor diet during infancy and young childhood.¹⁴

In North Korea free and fair elections are virtually nonexistent, and citizens do not have any meaningful control over political power, civil life, or their personal lives. Moreover, human rights are frequently violated, and the rule of law does not apply at all equally to every citizen.

It is interesting to note that both East Germany and North Korea use the terms "democratic" and "republic" in their official titles. Neither is a democracy nor a truly republican form of government—disinformation and propaganda are often-used tools in socialist countries.

Socialism and Ethics in Medicine

Another clear distinction between the capitalist market economy vs. the socialist command economy lies in medical ethics. The Hippocratic School states, "Practice two things in your dealings with disease: Either help or do not harm the patient."^{15, p 94} While the focus lies on the individual and his well-being, this is incompatible with socialism, which eschews the individual in favor of the collective whole, although the Hippocratic Oath exists in socialist codes of bioethics.¹⁶

In East Germany, health care was established by the

Soviet Union as centralized social medicine called the Semashko model, after Nikolai Semashko, first head of the Health Care Commissariat.¹⁶ As Semashko believed, disease was a result of the social conditions, private medicine was viewed as being predatory on the vulnerable proletariat, and the physician became simply a medical worker rather than an independent professional.¹⁶

Semashko wrote that “the ethics of the Soviet physician is an ethics of our socialist motherland, an ethics of a builder of communist society; it is equal to communist moral.”^{17, p 33} Indeed, the socialists preferred to use the term *deontology*, where the physician is required to maximize the public good and decrease the harmful effects of inadequate medicine, as opposed to *bioethics*, which focuses on the rights of the individual, self-determination and privacy, and established medical practices.¹⁷ In short, deontology focuses on the collective by shaping socio-economics and culture, whereas the emphasis of bioethics lies strongly on the individual. As expected, even medicine (“health care”) falls under the social philosophy of socialism.

But more than mere terminology, the fundamental difference between the socialist deontology and the capitalist bioethics can be seen in the area of cell and tissue donation, a topic that often poses the biggest change from socialist to post-socialist regimes.¹⁸ In Western cultures, individuals decide whether they want organs or tissues donated upon their death, and families are consulted for patients that have not yet reached the age of consent. In socialist societies, removal of viable organs and tissues is permitted by law during the post-mortem.¹⁹ Recipients are not allowed to know the name of the donor, and the family of the deceased is not informed as to what organs or tissues have been removed.¹⁹

Similarly, issues with abortion and euthanasia also reflect the socialist ideal to support the collective whole. In Eastern Europe after World War II, overpopulation was not a problem; indeed, more people were seen as desirable to enhance manpower and replenish the deaths resulting from the war.¹⁹ Thus, both contraception and abortions were difficult to obtain—the desires of women were subservient to the right and needs of the state.¹⁹ In overpopulated areas in Southeast Asia (China, for example), however, abortion was seen as a desirable method to limit and control population growth, again without concern for either the desires of the mother or the life of the unborn.

Aging is another important health issue, and the official socialist policy in Eastern Europe provided for no life-saving methods to be spared.¹⁹ In practice, however, the aged and infirm were treated as lower priorities, and frequently they were separated from the rest of society. As Page notes, Marxist philosophy and, correspondingly, socialist health care, does not develop an approach to patients who are dying. Indeed, Marxists have noted that religion plays a useful role at these times, and a few have suggested that a “Marxist pastor,” a socialist equivalent to a Catholic priest, might be a useful addition.¹⁹

Elevation of the collective over the individual was not

restricted to the elderly or infirm, but extended even to the most fit—the athletes. Top East German athletes were regularly given performance-enhancing drugs, often without their consent, and possibly without even their knowledge, with long-term health-damaging side effects.²⁰ Doping scandals have arisen in North Korea as well in celebrated cases in sports shooting, weightlifting, and, in particular, women’s soccer. In the latter case, North Korea argued that five players from their women’s soccer team tested positive for steroids because they had been hit by lightning and a traditional Chinese homeopathic remedy of deer musk had been applied.²¹ Under socialism, even the health of the athlete takes a back seat to getting a win for the Motherland.

It is therefore not surprising to hear of reports that East Germany may have loaned patients to pharmaceutical firms to support their research programs.²² Although disputed by researchers in Germany,²³ trials of numerous drugs may have been conducted in secret, and no evidence exists that patients were informed or that they had been given understanding of what the trial entailed.²⁰ Researchers concluded that:

[East German] ideology required the subordination of the individual to the interests of the collective, a basic precept of Marxism. Therefore, the rights of the individual were not always fully taken into account. This goes against traditional medical ethics where patient autonomy is the primary concern. In [East Germany], decisions were often made for purely ideological reasons. State politics followed a socialist collective code of ethics and ethical freedom was non-existent, a fact that even formerly loyal [East German] ethicists openly admit today. Medical employees, doctors and scientists were expected to subordinate their interests to prioritise tasks of importance to society. A truly independent medical opinion was not wanted.^{23, p 532}

Today, many are pushing for a socialized health care system in the United States—a failing, unworkable system may have been designed to ultimately create a socialist state-sponsored solution.

If the U.S. looks for a parallel to *The Experiment* on our shores, we only need to consider the history of Canadian health care. At the turn of last century, many Canadians bought personal insurance in the U.S. to supplement their state-run system in Canada.²⁴ If socialist-style health care is free to the patient, why would Canadians need additional health insurance as backup? Under socialist medicine, health care may be “free,” but it is rationed. There are two proverbial doors to the doctor’s office; one marked “public” and the other marked “private.” What do you do if the “public” door has accepted its quota of patients? The Canadians were buying health insurance so they could guarantee that the “private” door was still open for them to acquire medical care if they needed it.

Socialized medicine in a non-socialist country has further drawbacks. Physicians in Canada work long hours for lower pay and are required to fill out extensive forms and endure much red tape.²⁴ The number of students willing to go into the medical field diminishes, and those who stay may have

to sell pizza to pay for repairs to the hospital's elevator, for example.²⁴ Socialized medicine always becomes minimalist health care with delayed or no access as the norm. Dr. Lawrence Huntoon warns against the idea that *pathological egalitarianism* is the only ethical choice. He asks: "How moral is it to force everyone equally into this broken system?"²⁴

The New Socialist Health Scare: Climate Change

To sell climate change to the general public, a recent tack is to portray climate alarmism as a major health epidemic. Initially, the emphasis has focused on the impact of heat waves and increasing temperatures (particularly at night), extreme weather events (including floods and droughts), and the propagation of infectious diseases such as malaria and the Zika virus.²⁵⁻³⁰ Indirect effects of climate change on human health are purported to include detrimental impacts on crop yields and water supplies, malnutrition, injury, violent death and decreasing mental health,²⁵ degradation of women's health,³¹ increases in allergies,³² kidney stone formation,³³ and even a rise in gastrointestinal illness among the elderly.³⁴ In most of these studies, the line is blurred between real pollution issues and the true impact of increasing anthropogenic greenhouse gases. Often missing in this discussion is that human health is affected by multiple actors and the attempt to isolate climate change as a forcing factor of detrimental health effects is highly tenuous.³⁵

With growing alarmism over carbon dioxide-induced climate change, many activists have turned toward socialism as a viable way to limit carbon-dioxide emissions. The collectivist model is perfect for top-down control over the general public as, supposedly, the government can then enact legislation to defend the environment and protect against climate change. Capitalism, it is argued, is a system based on greed, and its economic bottom line trumps the need for clean air and clean water. By contrast, the socialist model should provide a much cleaner environment as pollution (including carbon dioxide by its erroneous inclusion as a pollutant by alarmists) is anathema to the collective whole.

In a nutshell, the argument is that capitalism cannot provide the ingenuity and resilience necessary to provide a sustainable environment. The only hope, therefore, is the limitation to growth that socialism provides. Li laments that the core of the environmental movement lies in the upper middle classes of capitalist societies who erroneously believe that technology can provide a solution to climate alarmism.³⁶ In his view, the real problem, of course, is the capitalist lifestyle, which is unsustainable as it requires unlimited economic growth.³⁷ By contrast, socialism provides the perfect solution in which growth can be limited by a benevolent government whose sole interest lies in protecting the collective whole. Indeed, the term *eco-socialism* (or *Hospice Earth*) has been coined to describe the concept that socialism can "replace capitalism's need for endless material growth with more environmentally

sustainable alternatives of production to meet genuine human needs."^{38, p 242} It is argued that eco-socialism can transform energy production such that the global society can avoid declines in human populations and all socio-political conflicts.

So how does this relate to *The Experiment*? If this line of reasoning is to be believed, then the socialist-oriented countries should be better suited to environmental preservation and sustainability than their capitalist counterparts. Or at the very least, the plans should have been in place for a cleaner environment, if the effect of other socio-economic maladies had not taken precedence. What are the facts?

The merger of East and West Germany exposed the truth about environmentalism under socialism. Estimates suggest that 42 percent of East German rivers and streams were unable to be processed for drinking water, and almost half of East German lakes were unable to sustain fish or other higher forms of life.³⁹ At most a third of industrial sewage and half of domestic sewage was treated before being dumped into rivers and lakes, while 40 percent of the population lived in conditions for which West Germany would have issued smog warnings. Only one East German power plant had sulfur-scrubbing capabilities for its stack.³⁹ Even the East German Environment Minister admitted in 1990 that their environmental policy "did not exist."³⁹

In 1990, Greenpeace labeled Bitterfeld, East Germany, as "the dirtiest place in the most polluted country in the world."⁴⁰ Sulfur dioxide permeated the air at levels five times that of West Germany, and 75 percent of the trees were dead. A Bitterfeld chemical plant put 10 times as much mercury into the Saale River each day as a comparable West German plant would dump into the Rhine River in a year.⁴⁰ Unfortunately, the situation in East Germany was not unique; most Soviet satellite countries in Eastern Europe experienced the same environmental degradation.

North Korea has not fared any better under its brand of socialism. Environmental disasters plague the North, whereas South Korea thrives in abundance.⁴¹ Air pollution is extreme due to both the extensive combustion of coal without sulfur scrubbers and winds that blow polluted air in from China.⁴² Cutting of firewood for home heating and cooking has led to serious deforestation and concomitant soil erosion. Large cities have sewage treatment, but wastewater in rural areas is still deposited untreated into rivers.⁴² Any effort at environmental protection becomes subservient to production and the desire for full employment. Despite 25 years of technological advancement since the end of East Germany, present-day conditions in North Korea are really no better.

So why doesn't the environmental movement see that capitalist societies are cleaner than socialist countries and gravitate toward capitalist solutions? Some environmentalists do; however, the concern over carbon dioxide has subverted common sense. Capitalist nations emit fewer pollutants

but more carbon dioxide. By contrast, socialist societies are less technologically developed and, consequently, they emit less carbon dioxide. For example, per capita emissions of carbon dioxide in South Korea are almost four times as great as in North Korea. In a world in which carbon dioxide is the only currency, environmentalists are enamored with the small carbon-dioxide footprint that socialism affords.⁴¹ When carbon-dioxide emissions are labeled as the greatest threat to humanity, North Korea becomes a world leader in environmental sustainability, and socialism is the tool by which global compliance can be afforded.

Socialism works for the environmentalist because of several qualities. First, socialism is a collective state, thereby making personal preferences subservient to the state's determination of what is good for the collective.³⁹ Moreover, property rights are held only by the state, and individuals must surrender all they own to the state. This actually has an additional backhanded benefit in that if no one owns that polluting factory or that river into which toxic waste is being dumped, there is no one to blame.³⁹ The state will not self-accuse.

Moreover, the authoritarian underpinnings of socialism allow no tolerance for dissent to be raised about what the state is—or isn't—doing to protect the environment.³⁹ Coercion is a necessary ingredient for socialism, and concomitantly many environmental policies, to be advanced. Further, its authoritarian base allows it to dictate policy, the outcome that environmentalists desire.

But the real issue is that socialism lags behind capitalist societies in the production of both wealth and technology.³⁹ Socialists inherently see the restriction of energy and its availability as necessary to further their collective ideals.⁴³ Without affordable, abundant energy, democracy may never have developed in Europe and Southeast Asia and led to Western Europe, Japan, South Korea, and the United States becoming leaders in innovative thinking.⁴⁴ Availability of inexpensive energy leads to remarkable increases in industry and worker efficiency, in wages and available free time, and in living standards and human health. Ultimately, this has allowed capitalists to develop the ability to be good environmental stewards. Indeed, the air and water in capitalist countries are much cleaner than in their socialist counterparts.

It stands to reason that the availability of free time afforded by capitalism has allowed civilization to become more environmentally conscious. Environmental issues are the least of one's concerns if one is in dire need of food, clothing, shelter, and safety.⁴⁴ The abject poverty of many nations is looked upon with admiration by some environmentalists, even though poor countries pay little attention to their environmental health. It is criminal that environmentalists are willing to pay poor countries to remain in their current condition rather than develop the technology to further expand their economies and lift themselves from poverty. Remember, carbon dioxide is

environmentalists' currency, and limiting its emission is their overarching goal.

The irony is that the model touted by these so-called *eco-socialists* is the biggest obstruction to environmental stewardship. While socialism purports to enhance the well-being of its citizenry, it in reality does just the opposite. Even advocates of socialism admit to its environmental failures.⁴¹ As James Wanliss eloquently wrote:

The environment under socialism fares no better. It is incontestable that pollution is horrendous in many of the poorest countries with the lowest levels of political and economic freedom. By contrast, countries with the greatest levels of political and economic liberty tend to be the cleanest and the wealthiest.⁴¹

With merger of the two Germanys and the failure of Soviet communism, the appeal of ecologically motivated authoritarianism waned, although the ideas remained. It has re-emerged today and is modeled after modern-day China rather than the Soviet Union.⁴⁵ Although they eschew full centralized control, environmentalists see an authoritarian state as the key to allow governments to subordinate individual rights and democratic methods. Unfortunately, this type of regime can only return a society to the environmental degradation of East Germany or North Korea.⁴⁵ Since greenhouse gases such as carbon dioxide are now the only concern of most environmentalists, they ignore the filth and degradation that actually accompany socialist societies.

The Importance of Freedom

The key ingredient that separated West from East Germany and still separates South from North Korea is freedom. Freedom is the elixir that fuels innovation, supports a diversity of thought, and allows people to become who they want to be, not what the state demands they must be. When the government guarantees equality of outcomes, it also stifles the creativity, diversity, ingenuity, and reward systems that allow people and countries to grow, develop, and prosper.

Energy availability is a necessary ingredient for freedom. Oppression—and indeed socialism is an oppressive political-economic system—flourishes when citizens remain poor and deprived of technology.⁴⁴ Freedom thrives when citizens have both the time and the ability to travel, communicate, innovate, and organize to better their lives or to fight a common enemy.

Both versions of *The Experiment* have proven this. Unfortunately, forgetful, unobservant, and ideological politicians in the U.S. are again touting the supposed benefits of socialism. They believe that capitalism is greedy and evil—and socialism, if “properly implemented,” will take us forward to realizing a better future. “Trust me, *this* time it will be different,” they say.

The next experiment is underway—in Venezuela. It is

showing, once again, that those who turn toward the siren-call of socialism always crash upon its rocks.

David R. Legates, Ph.D., C.C.M., is a professor of climatology at the University of Delaware in Newark, Del. Contact: legates@udel.edu.

REFERENCES

1. Link FJ Fröhlich H-P. East Germany's race for productivity growth. *National Productivity Rev*, 1991/1992;11(1):113-124. Available at: <http://onlinelibrary.wiley.com/doi/10.1002/npr.4040110113/abstract>. Accessed Nov 30, 2016.
2. Shenoy BR. East and West Berlin: a study in free vs. controlled economy. *Indian Libertarian* 1960;8:III-IV. Available at: indianliberals.in/uploads/periodicals/PDF_86_r3t3z919600815.pdf. Accessed Oct 31, 2016.
3. Connolly K. German reunification 25 years on: how different are east and west really. *Guardian*, Oct 2, 2015. Available at: www.theguardian.com/world/2015/oct/02/german-reunification-25-years-on-how-different-are-east-and-west-really. Accessed Oct 31, 2016.
4. Luy M. Mortality differences between Western and Eastern Germany before and after reunification: a macro and micro level analysis of developments and responsible factors. *Genus* 2004;60:99-141.
5. Kibele EUB, Klusener S, Scholz RD. Regional mortality disparities in Germany. *Köln Z Sozial Soz* 2015;67:241-270. doi: 10.1007/s11577-015-0329-2.
6. Hahn W. Education in East and West Germany: a study of similarities and contrasts. *Stud Comp Communism* 1972;5:47-79.
7. Meyer J. Country comparisons: what are the biggest cultural differences between East and West Germany? *Quora*, Oct 22, 2015. Available at: www.quora.com/Country-Comparisons-What-are-the-biggest-cultural-differences-between-East-and-West-Germany. Accessed Oct 31, 2016.
8. Sung-Wook N. Chronic food shortages and the collective farm system in North Korea. *J East Asian Stud* 2007;7:93-123.
9. Hannas C. Report lists Somalia, North Korea as the world's most corrupt countries. *Voice of America News*, Jan 27, 2016. Available at: www.voanews.com/a/report-lists-somalia-north-korea-as-worlds-most-corrupt-countries/3164430.html. Accessed Oct 31, 2016.
10. Datablog. South v North Korea: how do the two countries compare? Visualized. *Guardian*, Apr 8, 2013. Available at: www.theguardian.com/world/datablog/2013/apr/08/south-korea-v-north-korea-compared. Accessed Oct 31, 2016.
11. Taylor A. A crazy comparison of life in North Korea and South Korea. *Business Insider*, Apr 8, 2013. Available at: www.businessinsider.com/life-in-north-korea-vs-south-korea-2013-4. Accessed Oct 31, 2016.
12. Young N. A comparative study on North and South Korean economic capability. *J East Asian Aff* 1995;9:1-43.
13. Stone D. New space station photos show North Korea at night, cloaked in darkness. *National Geographic*, Feb 27, 2014. Available at: news.nationalgeographic.com/news/2014/02/140226-north-korea-satellite-photos-darkness-energy. Accessed Oct 31, 2016.
14. Knight R. Are North Koreans really three inches shorter than South Koreans? *BBC News*, Apr 23, 2012. Available at: www.bbc.com/news/magazine-17774210. Accessed Oct 31, 2016.
15. Lloyd G. *Hippocratic Writings*, 2nd Ed. London: Penguin Books; 1983.
16. Bazylevych MY. Ukrainian physicians reinterpret the Hippocratic Oath: significance of remuneration and class in bioethics. *Hum Organ* 2015;74:197-206.
17. Lichterman B. Soviet medical ethics (1917-1991). *J Int Bioethique* 2005;16:33-41,167-168.
18. Putniņa A. Bioethics and power: Informed consent procedures in post-socialist Latvia. *Soc Sci Med* 2013;98:340-344.
19. Page BB. Socialism, health care, and medical ethics. *Hastings Cent Rep* 1976;6:20-23.
20. Cook M. Drug tests in East Germany get "conceded pass." *BioEdge*, Oct 25, 2014. Available at: http://www.bioedge.org/bioethics/drug_tests_in_east_germany_get_conceded_pass/11192. Accessed Nov 4, 2016.
21. Kirby R. Lightning, deer musk, no World Cup: the strange story of North Korean soccer. *ESPN*, May 20, 2015. Available at: www.espn.com/espnw/news-commentary/2015worldcup/article/12912763/strange-story-north-korea-soccer. Accessed Nov 4, 2016.
22. Ward P. Were clinical trial practices in East Germany questionable? *Appl Clin Trial*, Oct 24, 2014. Available at: www.appliedclinicaltrialsonline.com/were-clinical-trial-practices-east-germany-questionable. Accessed Nov 4, 2016.
23. Erices R, Frewer A, Gumz A. Testing ground GDR: Western pharmaceutical firms conducting clinical trials behind the Iron Curtain. *J Med Ethics* 2015;41:529-533. doi:10.1136/medethics-2013-101925.
24. Huntoon LR. Health care and the "distributed ethic"—"natural rights" vs. socialism. *Med Sent* 1999;4:177-178.
25. Field CB, Barros VR, Dokken DJ, et al. Climate change 2014: impacts, adaptation, and vulnerability. Part A: global and sectoral aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press; 2014.
26. McMichael AJ. Insights from past millennia into climatic impacts on human health and survival. *Proc Natl Acad Sci USA* 2012;109:4730-4737. doi:10.1073/pnas.1120177109.
27. McMichael AJ, Woodruff RE, Hales S. Climate change and human health: present and future risks. *Lancet* 2006;367:859-869. doi:10.1016/S0140-6736(06)68079-3.
28. Mitchell D, Heavyside C, Vardoulakis S, et al. Attributing human mortality during extreme heat waves to anthropogenic climate change. *Environ Res Lett* 2016;11:074006. doi:10.1088/1748-9326/11/7/074006.
29. Patz JA, Campbell-Lendrum D, Holloway T, Foley JA. Impact of regional climate change on human health. *Nature* 2005;438:310-317. doi:10.1038/nature04188.
30. Tamerius JD, Wise EK, Uejio CK, McCoy AL, Comrie AC. Climate and human health: synthesizing environmental complexity and uncertainty. *Stoch Environ Res Risk Assess* 2007;21:601-613. doi: 10.1007/s00477-007-0142-1.
31. Duncan K. Global climate change, air pollution, and women's health. *Manag Nat Resourc Sustain Dev Ecol Hazards* 2007; 99:633-643.
32. Reid CE, Gamble JL. Aeroallergens, allergic disease, and climate change: impacts and adaptation. *EcoHealth* 2009 6:458-470. doi:10.1007/s10393-009-0261-x.
33. Fakhery RJ, Goldfarb DS. Ambient temperature as a contributor to kidney stone formation: implications of global warming. *Kidney Int* 2011;79:1178-85. doi:10.1038/ki.2011.76.
34. Bush KF, Fossani CL, Li S, et al. Extreme precipitation and beach closures in the Great Lakes Region: evaluating risk among the elderly. *Int J Environ Res Public Health* 2014;11:2014-2032. doi:10.3390/ijerph110202014.
35. Papworth A, Maslin M, Randalls S. Is climate change the greatest threat to global health? *Geogr J* 2015;181:413-22. doi: 10.1111/geoj.12127.
36. Li M. Climate change, limits to growth, and the imperative for socialism. *Mon Rev* 2008;60:51-67.
37. Li M. The 21st century crisis: climate catastrophe or socialism. *Rev Radical Pol Econ* 2011;43:289-301. doi:10.1177/0486613410395896.
38. Barkdull J, Harris PG. Climate-induced conflict or Hospice Earth: the increasing importance of eco-socialism. *Glob Change Peac Secur* 2015;27:237-243. doi: 10.1080/14781158.2015.1019442.
39. Grabow C. If you think communism is bad for people, check out what it did to the environment. *Federalist*, Jan 13, 2014. Available at: thefederalist.com/2014/01/13/if-you-think-communism-is-bad-for-people-check-out-what-it-did-to-the-environment/. Accessed Nov 7, 2016.
40. Fisher ME. Germany's Bitterfeld grimmest town in dirtiest country. *Wash Post*, Apr 16, 1990. Available at: www.washingtonpost.com/archive/politics/1990/04/16/e-germanys-bitterfeld-grimmest-town-in-dirtiest-country/b3fd8888-6936-43ee-9041-b69add42cd6f/. Accessed Nov 7, 2016.
41. Wanliss J. Socialist North Korea and capitalist South Korea: an experiment we ignore at our peril. *Stream* Jun 8, 2016. Available at: stream.org/socialist-north-korea-capitalist-south-korea-revealing-experiment/. Accessed Nov 7, 2016.
42. Tenebaum DJ. International health: North Korean catastrophe. *Environ Health Perspect* 2005;113:A26.
43. Wanliss J. *Resisting the Green Dragon: Dominion, Not Death*. Burke, Va.: Cornwall Alliance for the Stewardship of Creation; 2010.
44. Legates DR. What I did on my summer vacation—another climatologist's perspective. *Post Email*, Oct 29, 2016. Available at: www.thepostemail.com/2014/09/05/what-i-did-on-my-summer-vacation-another-climatologists-perspective/. Accessed Nov 7, 2016.
45. Shahar DC. Rejecting eco-authoritarianism, again. *Environ Value* 2015;24:345-366. Available at: www.ingentaconnect.com/content/whp/ev/2015/00000024/00000003/art00006. Accessed Feb 21, 2017.